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JULY, 1870.

THIRD SERIES.

THE
FARMER'S MAGAZINE,

AND

MONTHLY JOURNAL

OF

THE AGRICULTURAL INTEREST.

Dedicated

TO THE

FARMERS OF THE UNITED KINGDOM.

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THE FARMER'S MAGAZINE.

JULY, 1870.

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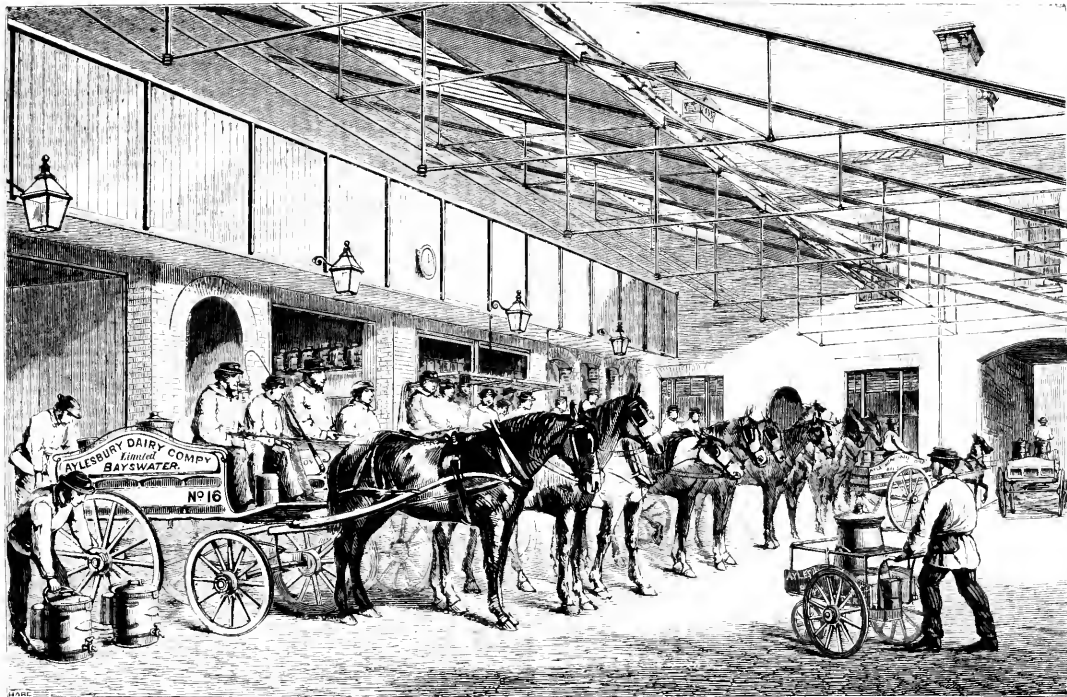
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Yours faithfully
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THE AYLESBURY DAIRY COMPANY.
THE START FROM ST. PETERSBURGH PLACE, BAYSWATER.

THE FARMER'S MAGAZINE.

JULY, 1870.

PLATE I.

LORD WALSINGHAM,

PAST PRESIDENT OF THE ROYAL AGRICULTURAL SOCIETY OF ENGLAND AND OF THE SMITHFIELD CLUB.

Lord Walsingham, of Walsingham, in the county of Norfolk, fifth Baron, was born on July 6th, 1804; succeeded his father in 1839; married, in 1842, Augusta Louisa, eldest daughter of Sir Robert Frankland Russell, by whom he has issue the Honourable Thomas de Grey, M.P. for West Norfolk since 1865. This lady died in 1844, and his Lordship married, secondly, in 1847, the Honourable Emily Elizabeth Julia Thellusson, eldest daughter of Lord Rendlesham, by whom he has a numerous family.

Lord Walsingham was elected a Member of the Council of the Royal Agricultural Society of England in 1855, and a Vice-President of the Society in 1861. He filled the office of President in 1860, in which year the annual Show was held at Canterbury. He joined the Smithfield Club in 1851, and was elected President of the Club for 1863. His Lordship has been President of the Wayland Agricultural Association, the meetings of which are held at Watton, near Merton, for the last thirty years.

As an agriculturist, Lord Walsingham is chiefly famous for his Southdown flock, for some years past the most successful of any in the country. On the Home Farm, at Merton, which has been much improved of late by marling and scientific cultivation, there is a Southdown flock which dates back for about forty years. The sheep, however, were originally small: and when Lord Walsingham first began to think of exhibiting, he was told that the soil was too poor, and that animals from it would always be beaten by those which came from better lands; as this at first was the case. But some success came in 1851, at the Norfolk and Yorkshire shows; while since then, Lord Walsingham has continued to improve his position, until at length, for six times in seven years, he has won the Gold Medal or Cup at the Smithfield Club, culminating his honours last Christmas with the Champion Cup for the best pen of sheep "of any age or breed" in the Hall. The foundation of the improvement in the Merton flock traces back to Jonas Webb, of Babraham; but constant resort has been had to the **OLD SERIES.**

stocks of the Sussex men themselves, such as Messrs. Rigden, Hart, Turner, Ellman, and Boys.

At the dinner of the Wayland Society, last autumn, Lord Walsingham said: "I may say, because I have a right to say it, that I have attended for a great many years, practically and personally, to the improvement of agriculture on my estate. I trust I have done so not without some little general benefit to the neighbourhood; but as to the success of any efforts of mine, I must leave others to judge of them. With respect to one point, I must most gratefully acknowledge that I owe my success mainly to the skill of that able and practical man who has brought my sheep to that perfection at which they have now arrived—I mean my agent, Mr. Woods. With respect to that I may, perhaps, claim a very little credit for myself. A person who, like myself, has many irons in the fire must engage the assistance of able men to see that those irons are always kept hot, and, above all, must supply the fuel which is necessary to heat the furnace. Passing from my own concerns, I wish to say that I have, since I have known the neighbourhood, seen many improvements in it. I remember when a great portion of my estate was nothing but a rabbit warren; and I may say, as of a person who makes two blades of corn grow where only one grew before, so also perhaps a person who has made several blades of corn grow where none ever grew before, must be considered in the light of a benefactor."

Lord Walsingham's precepts are well supported by his practice. At the time he succeeded to the Merton property, a considerable portion, about 4,800 acres, was held in large rabbit-warren farms, one consisting of as much as 2,100 acres. His Lordship's first object was to get rid of the warren as the leases fell out, and that was effected in the course of a few years. This step necessitated the building of farm-houses and premises, and the subdivision of the land; and the holdings here now range from about 600 to 700 acres, while great pains have been taken to reduce the rabbits. Hares were not considered to do

so much harm as rabbits, but they were destroyed with similar care, and their number is now reduced to a very low ebb. The main improvement necessary was to strengthen the staple of the sandy soil by marling or claying, for which there existed every facility. This proceeded slowly in the hands of the tenants, and large tracts were consequently taken in hand by Lord Walsingham himself, who at one time occupied in all about 3,500 acres. Large portions have now been marled or clayed at the rate of from 80 to 100 loads per acre, or, in some instances, much more, and the arable lands divided by

fences. Enough already has been effected to show that, by liberal but not necessarily very expensive cultivation and careful farming, good crops may be grown on land where formerly the produce was but little more than rabbits.

It is good to try a man by his character about home; and we have said enough to show that Lord Walsingham's repute does not rest merely upon his doings in public. They are rather famous for prize landlords in Norfolk, but our sample may take honourable rank amongst them; as, further a-field, the Merton triumphs may live in story with the Holkham shearings.

PLATE II.

THE AYLESBURY DAIRY COMPANY.

THE START FROM ST. PETERSBURGH PLACE, BAYSWATER.

A great revolution is just now taking place in the London milk trade. Mainly owing to the facilities afforded by the railways, a new branch of business is springing up that threatens gradually but certainly to supersede the objectionable system of keeping cows in a crowded metropolis. On the face of it, the health alike of the provider and consumer would seem to be better consulted by bringing milk fresh up from the country, rather than by encouraging its production from establishments in town, which, as the veterinary professors assure us, are very hot-beds of impurity and disease.

At the head of these "importing" houses stands the Aylesbury Dairy Company—Limited—which was originated by Mr. G. M. Allender, a gentleman who farmed for some years in Buckinghamshire, where he was famous for his breed of Berkshire pigs. Hence, from old associations, we may trace the title of the Company, although the supply of milk is not drawn alone from the Aylesbury grass grounds. Berkshire, Wiltshire, and Oxfordshire are also contributaries, while contracts are about being entered into for other districts. Nothing, indeed, in the management of such a concern could look to be more desirable than the plan of appropriating "fresh fields and pastures new," or a breakdown some fine morning on some favourite line might act like the temporary stoppage of a Bank, and seriously damage the stability of the business.

The Aylesbury Dairy Company now distributes between five hundred and six hundred gallons of milk a day, and before half-past eight o'clock in the morning, the "serving men" have called at some thirteen hundred houses. There is an afternoon delivery at two o'clock, the start for which we have caught in the photograph. Nothing can be more orderly than the system here employed. Some fourteen or fifteen carts are backed up to be loaded from the dairies, the milk being packed in sealed cans, and precisely as the clock strikes two does the first cart turn out of the yard. Each driver, with his guard at his side, has as orthodox an uniform as the mail-coachman of other days; and, indeed, the establishment at St. Petersburg Place is altogether something to see. There is a capital

built cottages for the men and their wives on the other. There is a Secretary's house communicating directly with the dairy, and a reading-room for the people, where without any absurd or impolitic restrictions, a man may not only see the paper, but smoke his pipe and take his drop of beer, without any need to look in at the public house. The milk is warehoused in a cool, roomy range below, where fountains are playing, and into the shade of which it was very grateful to retreat from the blaze of the mid-day sun. In fact, the whole place is delightfully "tempered" in this way, as the shop where you can set a glass of milk over the counter is fashioned like a grotto, with stone and rockwork, ferns, flowers, and gold-fish, which seem to have found a happy home at last. Then, the very clerk who books your order to send twice a day is no clerk at all, but a modera rendering of a veritable milkmaid. Dorcas, or Phoebe, or honest Maudlin herself, who sang Master Izaak Walton a song and promised him a syllabus:

A gown made of the finest wool,
Which from our pretty lambs we pull;
A belt of straw and ivy-buds,
With coral clasps and amber studs;
And, if these pleasures may thee move,
Come, live with me, and be my love.

Some short time back the Society of Arts offered a Gold Medal for a can which should bring milk up to town in the best condition, and the award was in favour of Mr. Allender's invention, the great merits of which are simplicity and freedom from angles and corners, thus rendering its cleansing an easy matter, while the can is provided with an inner lid or stopper, that alike serves to stay any tampering with the contents and to keep out the dust. There are, however, some who still maintain that the quality of the milk is injured in the transit, but this we are inclined to think is a mistake. Country milk, well managed, has a better flavour, and will keep longer after its arrival than London milk just drawn.

There was a time, and not so long since, when his spare milk was often in the way of the farmer: he really did not know what to do with it. Here, however, is a ready-money business open to his hand, that may be conducted with far less trouble than the manufacture of butter, cheese, or pork.

page of glibbling on one side, a row of comfortable well-

H A Y.

BY CUTHBERT W. JOHNSON, F.R.S.

The produce of our grass lands varies in amount in different districts to a greater extent than perhaps any of our ordinary field crops. For those variations we must chiefly assign the widely different amount of moisture of our spring months. Thus in the last six years the rainfall at Croydon in March, April, and May has been in inches as follows:

	1865.	1866.	1867.	1868.	1869.	1870.
March ...	0.82	1.65	2.44	0.81	1.31	1.44
April ...	0.37	1.90	1.95	1.72	1.04	0.38
May	3.36	1.63	1.55	0.78	3.47	0.72
Total.	4.55	5.18	5.94	3.31	5.82	2.54

We see, then, that in the three chief hay-producing months, we had in Surrey a rainfall in 1869 of about 582 tons of water per acre—and this was a great hay year. In the present year to June the 1st, we had only in these months a downfall of about 254 tons per acre, or not half that of 1869; our hay crop therefore is this season miserably deficient (an inch of rain is about 100 tons per acre). We are all well aware how much the amount of rain influences the mode of farming in different portions of our island; that our grass-producing or western counties are those where the rainfall is the greatest, whilst cereals are chiefly cultivated in our drier or eastern counties. This rainfall differs to a much greater extent than is commonly understood. Thus in the month of April in the present year we have noted that our Surrey rainfall was only equal to about 38 tons of water per acre. But in the western districts the fall during this month per acre was 174 tons at Barnstaple, 291 at Bodmin, 172 at Derby, and 238 at Manchester. The amount of water which our water meads receive, and the largeness of their produce tend to illustrate the same fact, that it is the deficiency of moisture to which our bad hay seasons are owing. The sewage-irrigated meads bear similar testimony. We find at Croydon that unless we annually apply to these meadows from 4,000 to 6,000 tons of sewage per acre, the greatest advantage from these is not derived. Now this is only equal to a rainfall of from 40 to 60 inches, an amount which only equals the downfall of some of our western grass-producing districts. It is true that other explanations of the beneficial results of irrigating grass land have been suggested, but they none of them obviate the necessity of a very large supply of water. I have in another place briefly referred to some of these explanations.

The good effect produced upon the grasses by the use of certain waters is well known. The reason why other springs are of little or no advantage in irrigation is not so well understood. Various theories have been propounded, to clear up the difficulty; but none of these appear to be of general application. More than half a century since, the celebrated Davy applied himself to the question. In his fishing days on the banks of the Berkshire Kennet and the Hampshire Itchin, he had noted the noble meads in their valleys, watered by only the bright springs issuing from the chalk formation. Here he found water producing the most luxuriant growth of grass—water in which he found but slight traces of organic matter. It abounded with carbonate of lime and carbonic acid gas; but, then, Davy noted that the soil it irrigated rested on the chalk formation. The chemical composition of the water, therefore, afforded Davy little aid in explaining its fertilizing power. This great philo-

sopher, however, carried his thermometer with him; he found that the temperature of the soil beneath the irrigating water was commonly eleven degrees higher than the surface of the water, even when that water had a thin covering of ice. The water, therefore, concluded Davy, keeps the grasses warm—preserves them from the effects of low and rapid transitions of temperature. This good effect, it is very probable, may be produced by the waters issuing from the chalk, which Davy was used to haunt in his days of fly-fishing, for the temperature of some of the springs of that formation is very considerable and uniform. The water of the Surrey Wandle, for instance, is of the temperature of about 50 degrees in all seasons; its stream in consequence never freezes. The temperature, therefore, of such waters may reasonably be expected to produce considerable benefit to the grasses over which they flow. But, then, we find that even these waters are materially increased in their irrigating value by the admixture of foreign substances. The bright chalk waters of the Itchin become sensibly more valuable to the irrigator after they have passed through the city of Winchester; and the same remark applies to other streams. In the case of the Clipstone meads, below the town of Mansfield, we are told by Mr. J. E. Denison, when describing the valuable water meadows formed by the Duke of Portland (*Jour. Roy. Ag. Soc.* vol. i., p. 362), "Soft water is the best; mineral water and water from peat, mosses, and bogs, are found to be injurious. After strong rains, the washings of streets and sewers of the town of Mansfield, which discharge themselves into the Mann, give great additional efficacy to the water. It will sometimes deposit a sediment, in one watering, of the thickness of a sheet of paper." The same remark applies to the water of the Wandle. Its fertilizing power is very greatly increased as it flows through a well-inhabited district towards the Thames. All natural waters, indeed, contain foreign substances. The water of the Holy Well from the Malvern Hills was found by Phillips to contain about 14.61 grains per gallon of various salts; even in rain water we detect ammonia and nitric acid. It is of great importance that these facts should be generally understood, and the water meads of our country extended. The enormous amount of grass produced upon the water meadows is too little known. And this great produce, let us remark, is not confined to the sewage-irrigated meads of Edinburgh, Croydon, and Mansfield. It is true that on those meadows more than thirty tons of grass per acre are annually produced; but then some of the watered lands of our Southern chalk formations yield nearly as much, although the water is bright and colourless. A Wiltshire farmer, Mr. J. Coombes, of Tisbury, long since described their produce, when he was remarking (*Farm. Mag.*, vol. xlvii., p. 217) upon "what may be considered the average produce of the water meadows in South Wilts." In doing so, he observed, "I will take a meadow of 20 acres, depastured in spring by sheep. The spring feed of this meadow, as fed in April, will keep 400 couples of sheep 25 days, during which time these 400 couples will fold ten acres of arable land, and it will after this yield in the first and second cuttings of grass, about 40 tons of hay. As I have said, this may be considered the average produce of these water meadows." These are facts which I would earnestly commend to the consideration of the landowner. They involve questions of the most vital importance to our agriculturists—the

increased production of animal food. I need hardly remind the reader that this, the most profitable branch of English farming, is not likely to become less remunerative as our population increases, and skilled labourers more numerous.

Upon the Croydon sewage-irrigated meads at South Norwood (which are on the London basin clay) the following is the length in inches of crops of Italian rye-grass grown there in the year 1867:—

1st crop.....	35
2nd do.....	40
3rd do.....	42
4th do.....	32
5th do.....	24
6th do.....	14

187 in., or 15 ft. 7 in.

In some experiments, carried on in 1867 by Mr. J. C. Morton on the farm of the Metropolis Sewage Company at Barking, some equally important results were obtained (*Bath and West of Eng. Soc. Jour.*, 1868). In one of these great operations, to 56 acres of Italian rye-grass about 300,000 tons of sewage were applied. From these 56 acres 2,488 tons of grass were cut.

It is a question of considerable importance to have decided, the comparative value of the grass produced upon lands irrigated, and not irrigated. This was ascertained by Mr. J. B. Lawes. He observed (*Jour. Roy. Ag. Soc.* vol. xxiv., p. 80): "It was obviously of great importance to determine the proportion of dry or solid substance contained in the produce cut, weighed, and given to the animals, in a green and very succulent condition; to determine the difference in composition due to the application of sewage; and also that of the successive crops taken at different periods of the season. To this end samples of 2½ lbs. of the unsewaged, or 5 lbs. of the sewaged grass, were taken from every load as soon as it was weighed at the homestead, the samples from each plot respectively being mixed together day by day as taken, until the cutting of the plot was completed. Each such mixed sample was exposed on sheets of canvas in the open air until sufficiently dry. It was then stored in sacks, and finally cut into coarse chaff, well mixed, weighed, and a weighed portion of the mixture taken for the purposes of analysis. 50 ounces of the coarsely cut chaff were taken in each case, and each of these samples was carefully divided into 4 equal parts; two of which were fully dried at 212 deg. F. to determine the absolute dry substance, and then burnt to determine the mineral matter, and a third was finely ground, and a portion of it sent to Professor Way for analysis.

"It should here be remarked that there are many practical difficulties in the way of getting accurate results in regard to the amount of dry substance in large bulks of green produce such as those in question. Cut in the morning, as the crops always were, the grass generally held a good deal of superficial as well as other moisture, and, with equal conditions of weather, the heavier the crop the greater the amount of water so retained. Again, if the weather were dry and hot, the grass would lose moisture considerably between the time of cutting and that of weighing and sampling at the farm bridgings; or, if rainy, the grass would be more or less saturated with water. To add to these difficulties, which are almost inseparable from such an inquiry, the taking of the samples, and their partial drying and preservation, were necessarily left in the hands of those unpractised in such work.

"It will be obvious from the above considerations, that the exact figures given which relate to or involve the question of the proportion of dry substance in the produce must be accepted with some reservation; though it is believed that at any rate the direction and more general

indications of the results on the point may fully be relied upon. The results given of the analyses of the dry substance itself will, of course, be much less affected by the irregularities referred to; and the differences in its composition according to the difference in the conditions of growth are points well worthy of a careful consideration in a hitherto untrodden field of inquiry.

"The following table then shows the mean composition (per cent.) of the dry substance of the grass produced without and with sewage, and in each successive crop in the season of 1861:

	Un-sewaged.	Sewaged.		
	Plot 1.	Plot 2.	Plot 3.	Plot 4.
Number of Analyses } giving the means ... }	5	7	9	9
Nitrogenous substance } N × 6.3 ... }	13.08	18.67	18.92	19.78
Fatty matter (ether } extract) ... }	3.21	3.54	3.53	3.44
Woody fibre ... }	28.80	29.34	30.15	29.13
Other non-nitrogenous } substances ... }	45.66	37.09	35.94	35.92
Mineral matter (ash) ... }	9.25	11.36	11.46	11.73
	100.00	100.00	100.00	100.00

The chief point of remark is, that the solid matter of the much more luxuriant and succulent sewaged grass contained a considerably higher proportion of nitrogenous substance than that of the unsewaged. It also contained somewhat more, both of the impure waxy or fatty matter extracted by ether, and of mineral matter which may be taken to indicate a less advanced or ripe condition at the time of cutting. But, owing to the generally less ripe and more succulent condition of the sewaged than the unsewaged grass, it is highly probable that a larger proportion of its nitrogenous substance was in an immature condition; and, so far as it was so, it would be less available for the formation of the nitrogenous compounds of flesh or milk. It would at any rate be unsafe, without further evidence on the point, to attribute the higher milk-yielding quality of the dry substance of the sewaged grass unconditionally to its higher proportion of nitrogenous substance."

Having thus noted the effect of water of varying degrees of impurity alone upon our grass land, next let us examine how their produce may be increased by artificial dressings where water for irrigation is not available. How can this produce be improved in quantity and quality? "A few years since," observes Mr. Bowick (*Jour. Roy. Ag. Soc.*, vol. xxiii., p. 60), "it was hardly allowed that these are pretty much in the farmer's own hands. Put on ammoniacal manures, and you get a strong bulky produce, in which the ranker grasses predominate. Apply phosphatic dressings, and the clovers and finer grasses presently appear. Prepare a combination of the two, and a desirable result should follow. Our manure manufacturers of repute, who have characters to lose, do this ready to our hand; and there can be no great hazard in putting on from 20s. to 30s. worth of such dressings per acre—in damp weather in February or March—whilst the prospect of a profitable return is highly encouraging. This refers to grass land which receives such applications regularly, or which is otherwise in good condition; with exhausted soils, more liberal treatment is required. The following plan has been tried here extensively, and invariably with satisfactory results. Draw out a dunghill about Christmas, containing 300 yards of good yard-manure. Throw up in a heap six feet high, and mix with one ton of Peru-

vian guano, two fous half-inch bones, and two tons of salt. Turn a time or two, till the whole becomes a rich saponaceous mass. Then cart on the turf not later than February; apply to twenty acres; spread, chain harrow, and spread again. After a week or two little will be seen of it; but at hay-time, as well as on the after-math, the results are readily visible. Similarly, by the application of hot lime at from one to two tons per acre on pieces of sour grasses or under trees where the *Dactylis glomerata* abounds in all its coarse luxuriance, much improvement in the herbage is produced." If farm manure is not to be had, then 1 cwt. of guano, 1 cwt. of nitrate of soda, and 2 cwt. of common salt per acre, is a good dressing for artificial grasses. We have long contended that our grass lands have never obtained that share of the farmer's attention which they will sooner or later obtain. This remark is not confined to those pastures to which nature has been bountiful, but extends to those poor yearly more-and-more-impooverished upland grass lands that the holder is so wont to plough up. It was at the conclusion of a debate on the breaking up of our pastures that the chairman of the Dorchester Club reminded his brother-farmers (*Farm. Mag.*, vol. liii., p. 265) that they had hitherto looked at the question principally from a tenant's point of view, but he thought they should hardly bid adieu to it without taking a landlord's view of the subject; and he would say this, that in breaking up these lands they were turning rabbit land into land for the use of the human kind, so that the landlord must stultify himself if, seeing the benefit that would result to himself, to his tenants, and to the community at large, he should oppose the judicious cultivation of such land as they had under review. But there was no doubt it was also a serious consideration to them, because landlords were aware that if land was broken up and injudiciously managed, considerable crops might be drawn from that land for two or three years, and after that it was impooverished for generations. Therefore there were two or three considerations of importance to the landlord. He should certainly not have a moveable tenant, or a tenant likely to move in a short time; secondly, he should take care to have a skilful tenant, and one who knew how to do the business and afterwards cultivate the land aright; and thirdly, he should take care the tenant was a man of capital—a man who had all his other land in good cultivation, and had a little extra money to go to work with in the cultivation of an increased quantity of arable land.

Having produced our grass—next as to its conversion into hay. Now, as I have in another place remarked, this operation is often too long delayed. In a valuable prize essay on hay-making, by Mr. T. Bowick, of Stoneleigh, in Warwickshire, he observes (*Jour. Roy. Ag. Soc.* vol. xxiii., p. 48.):

"Of course the weather is almost everything in hay-making. Thus, referring to the four years 1858, '59, '60, and '61, there were in Warwickshire:

	Rainy days.		Depth of rain.	
	June.	July.	June.	July.
1858	4	8	2.51	2.48
1859	11	8	2.45	2.95
1860	27	12	5.70	1.95
1861	18	25	3.01	4.30

Of the value of machines in haymaking, during these years, Mr. Bowick observes: In the two dryer years hay was well and easily got; while in the two latter the operation bore a complete contrast to our earlier experience. In 1860, in particular, the chief difficulty was how to make hay in cloudy weather alternating with pouring rain; and the chief lesson learnt was, that a strong staff of hands is essential. We managed, with one of Burgess and Key's implements, to dispense with half-a-dozen able-bodied mowers, while another half-dozen were also fre-

quently taken from their work on pressing occasions. As regards the mowing-machine in that unfavourable season, although there were many annoyances arising from stoppages among tangled and heavy crops, yet we never lost an hour's carrying by keeping it at work, while it gave us a power over the whole operation which could not otherwise have been obtained. Improved machinery, as the haymaker, horse-rake, and mowing-machine, has tended greatly to diminish the amount of manual labour needed. The former implement has been more or less before the public for the past fifty years. Though many improvements have been made, its principle still remains unchanged. Scarcely second in importance for extensive crops is the horse-rake. Even where it is not employed for windrowing, there is a great saving of labour by dispensing with hand-rakes for clearing the ground. The use of carts, instead of waggons, in hay-carrying, is a great advantage, for one strong horse will take nearly as much on an old-fashioned broad-wheeled dung-cart (furnished with suitable gearing) as many folks choose to place on a waggon drawn by two or three horses. The cart can be left beside the rick, while the horse returns for another load, by having three props, one fastened to each shaft, and the other at the tail of the cart. It is a good practice, for hay that has been injured by rain in harvesting, to add a peck of salt to a ton of hay. Mr. Bowick prefers adding to the hay a mixture, which many have tried, both in making the ricks in summer and in using them in winter. The point aimed at is to give an aromatic flavour which shall be intrinsically good and safe in itself, and which shall at the same time render the hay or clover palatable to the stock fed upon it. This is accomplished by strewing a little of the following mixture in the rick, while in the process of erection:

Fenugreek, powdered	...	...	...	112 lbs.
Pimento	...	...	...	4 "
Aniseed	...	...	...	4 "
Carraways	...	...	...	4 "
Cumine	...	...	...	2 "

An outlay of 2s. 6d. per ton will afford a sufficient application in the majority of cases. And that horses or cattle will consume the compound in preference to better lots not similarly treated, we have had repeated and lengthened observation. An inquiry being made as to how it affected the health of the animals fed upon it, we were able last season thus to reply: 'Our beasts, numbering 170 head, came out with more than average bloom in spring; and the cow doctor's bill, from November to April inclusive (the hay-consuming months), has not run over three-pence per head.'" The great object, it must be remembered, in haymaking, is to preserve in the hay all the saccharine and other soluble matters of the grasses; to dry in the juices; to avoid the ill effects of drenching rains. The process adopted around London has been well described by Mr. R. Smith, in his prize essay on grass land (*Jour. Roy. Ag. Soc.*, vol. ix., p. 20). "There the mowers perform their task by the acre, the haymakers being paid by the day. On an average five (boys, women, and men) is a fair proportion to each mower; much, of course depends on the weather. The course in fine weather is: *First day*—All grass cut before 9 o'clock is carefully 'tedded' out, and, if possible, is moved again before 1 o'clock; then it is 'hacked' into small rows; then they return to the first mowed, and place it in small 'grass cocks.' On the *second day*—All the grass cut after 9 o'clock on the first day, and before 9 o'clock on the second day is 'tedded;' and then they shake out the grass cocks of the first day into small rows; the hay is then moved once or twice before dinner; after dinner the more forward hay is raked into small double 'winrows;' then, after attending to other portions of the hay, it is made into small cocks. On the *third day*—After attending to

the hay in less advanced stages, the forward hay is shaken out again into round patches, or winrows, if a heavy crop, and again moved over before 1 o'clock, after which it is carried. Care is taken in all cases not to have a preponderance of mowers; in fact, not to have more hay down at any one period than can be managed upon the established process. The 'haymaker' has now partially superseded manual labour; it expedites the work; but in wet seasons fine spreading of the hay exposes it more to the ill effects of the rain. The cheapest way to get hay," adds Mr. Smith, "and to insure the greatest value out again, is to harvest it quickly, by a sufficiency of labour." Those who rely entirely upon the sun never have good weather." Such is the mode of making hay near the metropolis—a very different system is adopted in our northern and western counties, and in Scotland. For there, the haymaking season is commonly much more rainy than with us. At a recent meeting of the Morayshire Farmers' Club, Mr. Walker (Leuchars) remarked, that "he had perhaps more experience in the way of making hay than any gentleman present. The way they made hay in the county of Fife, so far back as forty or fifty year ago, was to cut it and let it lie for two or three days, the time depending upon the strength of the hay. When hay was left in the swathe as cut, it would stand a great deal of rain, but if they turned it over and over, it was easily spoiled. After lying for two or three days in the swathe, he would turn it over with the handle of a fork, then put it into cole and it would stand two or three good showers; then put three or four of the small coles into one, and allow it to stand till it could be put into stack. They could not in this country depend upon weather for making the hay, as in England." The expense of cutting the grass was estimated by the chairman of the Club, to be in Morayshire 4s. 6d. an acre by the scythe, and about 2s. 6d. by the machine.

The nutritive quality of our hay is, of course, a primary consideration. Meadow hay was some little time since laboriously examined by Professor Way. His examination of the natural grasses was made after they had been dried in a temperature of 212 degrees. The results which he obtained must therefore be, as he observed, somewhat modified, when we regard them as in the state of hay; for however dry it may appear, no grass can be made absolutely dry without artificial heat, the usual proportion of moisture in well-made hay being about 16 per cent.; and a grass which has been artificially dried, will in the air

absorb from it about this degree of moisture. From the per-centage of albuminous or fatty matter in the dry specimens, therefore, about one-sixth is to be deducted to ascertain the quantity present in the hay. With this deduction, the following table will give the lowest, highest, and the average quantities per cent. in the specimens of about 22 natural grasses, which he examined:

	Low.	High.	Average.
Flesh-forming principles	6.08 ...	17.29 ...	10.93
Fat-producing principles	2.51 ...	3.67 ...	3.05
Heat-giving principles	38.03 ...	57.82 ...	45.57

In about 15 dried artificial grasses he found:

	Low.	High.	Average.
Flesh-forming principles	10.34 ...	24.60 ...	19.03
Fat-producing principles	2.51 ...	4.77 ...	3.65
Heat-giving principles	33.15 ...	49.65 ...	41.29

The ordinary varieties of hay, dried at 212 deg., analyzed by various chemists, yielded the amount per cent. of ash annexed to their names in the following table, and the composition of that ash per cent. I have also added in the subjoined columns:

	Meadow.	Clover.	Sainfoin.
Ash per Cent. ...	8.7	11.17	6.36
Sand and silica ...	25.1	2.6	3.2
Potash ...	19.9	16.1	31.9
Soda ...	7.8	40.7	—
Lime ...	8.2	21.9	24.3
Magnesia ...	2.0	8.3	5.0
Alumina ...	—	—	—
Oxide of iron ...	1.9	0.5	0.6
Chloride of potassium...	4.7	—	6.2
Common salt ...	13.1	4.7	0.8
Phosphoric acid ...	14.4	4.1	9.4
Sulphuric acid...	3.4	1.1	3.3
Carbonic acid ...	—	—	15.2

These facts are full of interest to the haymaker. And it is no objection to their value that I refer to them in an extraordinary season, when owing to the dryness of the spring months there has been hardly any grass to cut, or, if there was, a very limited growth; it was nearly hay before it was mown. I have shown that in Surrey we had only 2.54 inches of rain in March, April, and May of the present year, and I may add, that not any fell from the 16th of May until the 16th of June, and then the amount was only 0.09 of an inch; and not any has fallen from that day till the time I am writing (the 24th of June).

NEW FOREST FARMING.

There is an agricultural enigma which, although continually under discussion, does not even in this advanced age appear to be approaching to anything like a satisfactory solution. So surely as any observant gentleman speaks to our position or prospects so certainly does he refer to the millions of acres of land in this country that are still suffered to lie in waste. He then gradually goes on to show that, were this neglected soil only brought into cultivation, such a course would be attended with every advantage to those mainly concerned in the business. And here of course arises a very startling paradox. The competition for farms is becoming keener than ever; the emigration schemes are gradually extending, and yet the landlords in the face of all this obstinately refuse to increase their rent-rolls. Would they only map out more farms neither the tenant nor the labourer need be driven to seek an occupation elsewhere.

During the last few months this argument has been pointed in one particular direction. Meetings at short

intervals have been held at Botley, Lynton, Romsey, and back again to Botley, all with an eye to the New Forest; while it is scarcely too much to say that this agitation has originated over the experience and enterprise of one man. If not so continually seeking the public gaze, a Mr. William Dickinson is almost as famous, and in much the same way as Mr. Mechi. After a lengthy career in business in London he has taken as bodily to farming on the Forest, where from time to time he has given the world the results of his experiments and investigations, which he may be said to have summed up in a challenge that he sent to this Journal early in March last. In this he said, "The amount of rent I pay the Crown for 430 acres of land is £816 per annum—that is, for rent and interest upon capital expended in improvements by the Crown, at my request. The staple of many thousand acres round the two farms I hold, four miles apart (mostly planted with fir trees), is as fine for agricultural purposes as is usually found in any

county, very superior to that round London, and the climate superior to any I have hitherto met with in any other part of England. The land wants nothing but simple honest farming, by resident farmers. I say resident farmers, because both farms I hold were farmed by the Crown up to the time I took them, and produced, I am told, very little indeed. They now produce heavy crops of the finest grain of all kinds, the finest roots; and growing grass 2 feet 9 inches high was shown at the fat cattle show at Christmas at Mr. George Gibbs' stand dug up from the open field and sent there. I have no objection to show the last year's produce of the New Forest Farms (swedes only excepted, they are eaten), white wheat, red April wheat, barley, oats, both kinds of mangolds, and carrots, against the produce of any farm in England, not for a money wager, but the benefit of the public. The highest quotation for last year's wheat in the London market, on the 21st ult., was 48s. per qr. or £12 per load (being five qrs.); the highest price at Southampton was £11 5s. per load; my last sale-return from Guildford on the 21st was £13 15s. per load. My barley is equally good, but has not yet been offered for sale. My red and yellow mangolds both got second prizes at Birmingham, and my carrots were commended." About this same time the Botley Club, the members of which had previously paid Mr. Dickinson the high compliment of declining to enter into competition against his roots, after a long sitting decided that woods, plantations, and commons "would pay to break up and cultivate," that all the remaining lands of the New Forest "should be offered to public competition," and so forth. At a second meeting of the same Club, it was resolved to draw more attention to the millions of acres lying waste, with a view to its cultivation, "as a means of employing our surplus population;" as at Lymington it was declared that the condition of the New Forest was "not satisfactory," that "it should be enclosed and cultivated as speedily as possible," and that the Government be "memorialized to that effect." At Romsey only last week some further conference took place, the result of which was the expression of an opinion that "it would be conducive to the public good that the New Forest should, after the rights and privileges of the commoners and others are fairly satisfied, be brought gradually into the market for sale, reserving such portions as may be required for public recreation;" while a more direct proposal that the Forest be enclosed and set out in large and small farms, on long leases, fell to the ground for want of a seconder.

Reports of these meetings have from time to time appeared in our columns, as, however much or little the resolutions actually adopted might infer, the chief speakers, like Mr. Blundell, Captain Maxse, and Mr. Dickinson, looked to carry all before them. At the last meeting, however, at Romsey, a report of which appears in our paper of this day, the proposal to attack the New Forest forthwith was by no means so unanimously espoused. The landlords, like Mr. Beech, the chairman, and Mr. Cowper Temple, the present representative of the Palmerston property in this county, were by no means so sanguine, while some of the leading farmers, like Mr. Trask, were more directly opposed to any scheme which should compel either owners or occupiers to break up their waste lands. One of the chief means to the end would, according to Captain Maxse, be the re-establishment of the small-farm system, although nothing, under the preliminary difficulties consequent on such an undertaking, would threaten to break down so readily. Our own solution of the case, or rather perhaps trial of the experiment, would start from an exactly contrary direction. It has so happened that within the last few days we have driven through the New Forest, and that we have paid a visit to that New Park which has been cut, as it were, fairly

out of the thick of it. The approach to this is park-like indeed, as no man could well wish for a nobler entrance to his home. There is an expansive range, old timber in clumps or single sticks, all belted by the woodlands, as in fact the very realization of a country gentleman's demesne. And it is here that good Mr. Dickinson has settled himself down to grow great cuttings of rye-grass, to increase tons on tons his crops of turnips and mangolds, and to cultivate corn that shall take the first prizes at the shows, and make the best prices in the market. But still, the impression from this visit, pleasing as it was, did not go to rank the tenant of New Park as a farmer—that is, as a man who lived by his business. There was something rather of the tone of the philosopher, of the experimentalist, who in his retirement devoted himself to researches which, if they succeeded, might become a public good, and which, if they failed could be of no great consequence to the gentleman who busied himself about them. It is in this light that we would regard the New Park farm; it is properly the home-farm of a Park, and as such, and as nothing more would we in the outset make it an example. The Crown could do nothing with the place. Mr. Dickinson has done much with it; but even he, perhaps, could scarcely say at how great a cost. Mr. Beech, the other day, speaking on behalf of the labourer, said "it was evident that the time was coming when the New Forest must share the same destiny that had overtaken some other forests. But he did not desire that it should follow the same course as Epping Forest, because there they saw a large tract of country, which formed the delight and enjoyment of the inhabitants of London, converted into private parks and private residences, and he was not sure that, if the Crown looked to making the most money out of that portion of the Forest which came to them, it would not find it better to sell it to a number of rich people, who would make parks and gardens, than to allow it to be sold for agricultural purposes." Nor, are we so sure but this would be in every way the best thing that could be done. Let thousand-acre plots be laid out; let New Parks be multiplied; let the wealthy and enthusiastic be in the first instance invited to take up the cultivation of the Forest, and the labourer will profit far more than he will suffer from the intrusion. As Mr. Trask puts it, "there is a considerable amount of land not growing corn at the present time which might be improved so as to become capable of growing it; but at the same time there is a vast amount of land now growing corn which pays nothing at all." There are many patriots who would be well pleased to play Columbus here, even if they wearied after a while and gave over the new country to their followers.

TREATMENT OF GALLED BACK.—The celebrated veterinary surgeon, George H. Dadd, gives in the *Prairie Farmer* the following: So soon as an abrasion is discovered on the back of a horse, the animal should be excused from duty for a few days; the abraded parts should be dressed twice daily with a portion of the tincture of aloes and myrrh. This simple treatment will soon heal the parts. Should there be no abrasion, but simple swelling, attended with heat, pain, and tenderness, the parts should be frequently sponged with cold water. Occasionally the skin undergoes the process of hardening (induration). This is a condition of the parts known to the farriers of old as "siftast," and the treatment is as follows: Procure one ounce of iodine and smear the indurated spot with a portion of the same twice daily. Some cases of galled back and shoulders are due to negligence and abuse, yet many animals, owing to a peculiarity of constitution, will "chafe," as the saying is, in those parts which come in contact with the collar and saddle, and neither human foresight nor mechanical means can prevent the same.

THE BATH AND WEST OF ENGLAND SOCIETY, AND SOUTHERN
COUNTIES ASSOCIATION.

MEETING AT TAUNTON.

"It will not be necessary to detail the reasons which have caused the Society, in the 75th year of its existence, to hold, for the first time, its annual meeting in the summer at a distance from the city in which it was originally founded. Another opportunity may present itself for giving some account of the past history of the oldest agricultural Society in England. It may suffice to say, on this occasion, that the present plans of operation bid fair to fulfil the original purpose of its establishment more completely than ever. Actuated by this conviction, the members of the Society as originally constituted decided to take into consideration a plan for extending the operations of the Society by holding a summer meeting for the exhibition of breeding stock and implements at different places in successive years." And, again, "The towns of Taunton and Bridgwater promptly and liberally responded to the proposal to hold the meeting at one of those places. It was decided that the Society's first meeting should be held at Taunton." So says the Official Report from the Committee, as read at the Annual Meeting of the Bath and West of England Society on the show-ground at Taunton, on Wednesday, June 9, 1852. It is amusing enough now to note the pride with which the Council on broaching this peripatetic experiment spoke of the prizes as "amounting in the whole to £484, distributed in the following manner—viz., £148 for cattle, £99 for sheep, £30 for pigs, £40 for horses, and £167 for implements, which last item includes a prize which is a new and striking feature in agricultural exhibitions, peculiar to this Society, being the prize of £20 for the most economical collection of implements suited to tenants occupying arable land not exceeding 100 acres. It has been responded to by the implement makers, and it is hoped that it will be productive of much practical utility, especially to those whose funds for the purchase of implements is necessarily limited." Then the Judges' Committee went on to report how "the names of 126 exhibitors have been entered for competition, consisting of 77 exhibits of stock and 49 exhibitors of implements. There are 238 entries of stock, and the entries of implements are upwards of 400." And how in the whole "the number of head of cattle amounts to 379."

Bearing in mind the time which has elapsed, and the agricultural improvement which has been going on in this time, it is doubtful whether the second visit of the Bath Society to Taunton is altogether so satisfactory and encouraging as might have been anticipated. Considering the calibre and scope of the now united West and Southern Societies, the entries are curiously small; nor save in some certain exceptional cases, is this limited competition counterbalanced by any very remarkable merit. Testing the meeting, indeed, by our three leading breeds of cattle, little or no progress is observable save with the Herefords. There are actually one third less of Devons, and scarcely half-a-dozen more Shorthorns exhibited at Taunton in 1870 than there were to be found here eighteen years previously. Against this, however, it may be argued that experience in the interim has taught breeders to send into public only such as are really superior animals. But it is not so. A strong proportion of the stock is decidedly inferior, and it frequently happened that the winning

beasts fairly placed themselves. According to the prize list, the judges were very liberal in their commendations; but many of these could only have been bestowed upon a comparison with something still worse, rather than from any close approach to the prize standard of excellence.

The Devons threaten so far to offer no great front during the show season, and the Somerset Devons more especially are quite out of force. In fact, it is hard to understand how Mr. Farthing's royal heifer *Pretty Maid* could have been kept in at Falmouth the other day, as one of the best on the ground, so lumpy and unsightly has she become in her quarter, so sadly has she trained off as to be no longer worthy of her name. Whereas, Lord Falmouth's *Narcissus*, also first in his class at the Cornwall Meeting, goes more to realize his title, having fine character, a bloodlike head, and a somewhat wild expressive eye. Then he has a deep, massive frame, with plenty of substance, at no sacrifice of quality. There was not much against him, the *Stowey* high commendation being a particularly plain beast; nor was there any competition to speak of amongst the yearlings, where Mr. Davy won with one of his high-bred animals, the second best being a long slack-framed young bull that requires a deal more time. Mr. Smith's second cow, neat, clean, and pure, was much more entitled to a place, while *Actress*, at over ten years of age, was made up very fat, although even her high patchy condition could not quite disguise her blood-like bearing, nor carry one away from that sweet head and deer-like glance; but still she is fast getting out of public form. There were two or three more nice cows in this class, and Mr. Dorsetshire Smith's two-year-old, if not so weighty, was far more sightly than the *Pretty Maid* placed before her. The pick and pride, however, of the Devons was Mr. Davy's yearling heifer *Tempress*, a half-sister to the prize cow—so level, so admirable in the rounding of her frame, and so full of breeding, that she had placed herself long before the judges had arrived at her second. The class, in truth, was otherwise only moderate enough, and *Duchess*, at best, but a bad second; but the judges bestowed upon it a general commendation.

"We shall probably not err very materially if we should rest our opinion of the Shorthorns as now, more than ever, the dominant breed of cattle in this country, upon the exhibition which is made of it in 1870, as compared with that in 1852 in the very home of the Devon." So said our contemporary the *Gardeners' Chronicle* in an article calling attention to the Taunton Show in connection with the merits of Shorthorns, as published on the Saturday previous to the opening of the meeting. The result, however, hardly went to maintain, in this instance at least, any such ascendancy for "the dominant breed," as had been inferred. As we said last week, it was numerically the weakest represented of the three national breeds, and, with the exception perhaps of Mr. Stratton's second prize yearling heifer, there is not an animal in the entry that should promise to make any great mark at Oxford. Lord Sudeley's white bull has gone off since last season, as all bulls will do when their show condition is brought into use, and he so looks to stand more out at his shoulders than ever; but there is still

a deal to like about Mandarin, what with his long straight frame and fine quality, and we quite expect to see him beat the Churchill Butterfly if they meet at Oxford. This beast has the better forehead, but, as a set-off, he is very bad and vulgar about his quarter, as he lacks much of the style of the other, and is, indeed, a commonly fair bull, of some size, and seemingly of more constitution than the other; but then he is half a year or more the elder. There was nothing else worthy of mention in the class; and, of the three or four two-year-olds, there was nothing beyond the winners to look at. Bythis has gone on well, and Majesty, with a good coat and nice touch, has the makings of a good bull about him, while the judges must have travelled very much out of their way to highly commend such a thing as they did. There were four cows in all entered, every one of which received some notice, while it was a nice point between Mr. Garne and Mr. Stratton for first, although we quite go with the award. Pride of the Heath, handsome, lady-like, long, roomy and light of bone, is already well known about the country, having during last season taken the chief prizes in Worcestershire, Warwickshire, and Northamptonshire. Beyond this she is nearly two years older than Coriander, who, having never been out before, was quite fresh and blooming. She is a useful, well-covered animal, looking of course more square and trim, but wanting something of the refined feminine character of her rival. Another first appearance from Burderop is the two-year-old Peersess, a long, deep heifer, of great substance and good flesh, that had no difficulty in disposing of La Belle Hélène, who shows but little advance on her yearling form, which was never more than second-rate. There is, on the contrary, however, a vast improvement observable in the best Royal calf, Flower Girl, who has dropped to her leg, and is now growing into a really stylish charming heifer, so that the Manchester award would seem to be gathering confirmation. Not that the judges here by any means held to it, for they placed Gertrude, from the same herd, and a merely commended calf at Manchester, first, while, as second to her, they put Flower Girl the best of all at Manchester. Gertrude is some months older than the other, as she is level enough, but short and vulgar forward, and so far as the two be concerned, there can be little question but that the Royal reading was the better one. The Yorkshire entry, Lady Highborn, also commended at the Royal, is ripening into a very nice heifer, but Lord Sudeley's Ceres, then in so much favour, now commanded no attention, and was altogether passed over in the liberal allowance of commendations appended to the award.

Manifestly the Shorthorn man and the Hereford man who were called on to act in company over these two breeds did not get on very well together. Mr. Savidge, it may be assumed, had it very much his own way with the Shorthorns; but although Mr. Yeomans was said to have had his son in the ring with him! the differences over the white faces were on reference given in favour of the Shorthorn judge. And there was something to differ over, as, for example, in the capital show of yearling heifers, about the best lot of Herefords we have seen got together in one class for many a day. And these were probably too much for the judges, for smart, bloodlike, and wealthy as is Mr. Thomas' Sunbeam, there were many would have it that Mr. Allen's second, from Mr. Rogers, of the Grove, was a better, or Mr. Tudge's highly-commended Lady Brandon a better than either of those placed before her. Lady Brandon was the best calf at Manchester, where, however, neither of the other two were entered; while it was sufficiently manifest at Taunton that Mr. Thomas Thomas must have established in Glamorganshire a very superior herd of Herefords. His best of all the

bulls, Sir John the Third, is as magnificent a specimen of the breed as we have ever seen. He is full of style and quality, backed by good size, a great back, and so forth; then he has a fine coat, is of a good colour, fashionably faced with white, and instead of being a sleepy, sluggish, over-done brute, is as lively as a kitten, and as fierce as a bulldog; his temper, in fact, was almost his only drawback, and it was a service of some danger to look him over. Mr. Baldwin's second is a son of Lady Asford, and Mr. Arkwright's commendation showed a deal of breeding; but the judges qualified the compliment by also noticing two or three very indifferent bulls, one of which, in the face of no competition, took a prize at Southampton; and they coupled with him the "Royal" Stow, never an animal of much pretensions in good company. We spoke after Hereford Fair to the merits of Mr. Turner's "nice thick, high quality yearling Trojan," who has since been doing well, and, barring being a little narrow behind, promises in every way to be the best of his year; but the class was not a strong one, although sundry commendations, as usual, were tacked on to the award. The Hampton Beauty is a rather delicate-looking cow, and it is a question whether Mr. Thomas should not have been first again here with a very good serviceable cow, while Mr. Allen matched his last year's entry with one of the Westonbury Fairies, although with not so successful a result. The prize heifer Silver Star has trained off sadly from her yearling form, as she is growing very gaudy and patchy, and it was so far fortunate that she had but one to meet and beat at Taunton. Noticeably strong as was the show of Herefords, many of the best of these were bred away from Herefordshire. The best man, indeed, does not go direct to Hereford for his blood, as Mr. Thomas' Sir John the Third was bred by Mr. Rawlings in Shropshire; and Mr. Thomas' Lizzie, at home at Cowbridge; while the best heifer, Sunbeam, is the produce of Sir John the Third and Lizzie, the first prize bull and second prize cow. What capital proof this is!

The Sussex beasts offered, as might have been expected so far from home, but a poor front of it. Both the bulls were very moderate, but the two prize cows were good, and the Heasman's sent in a pair of fairish heifers. The best Jersey bull was a wonderfully good one at all points, and the second best quite good enough to win in good company. These were backed by some nice cows, the neatest of which was put second, but happily without any of that unseemly disturbance which attended the placing of the Islanders at Southampton. In fact, the Devon and Sussex judges pulled very well together, whereas the Shorthorn and Hereford couple scarcely succeeded even in satisfying each other.

As we were enabled to report last week, the strong point of the Taunton Meeting is no question the capital entry of Somerset and Dorset horned sheep, where in every way some praiseworthy progress is observable. Indeed, those who know the breed best were by no means prepared for the extraordinary improvement shown in these sheep. So long as they managed to get a bit of fat on the loin and to have them ready early as house-lamb, little more was sought after. Now, however, they unite more size with more symmetry, set off as they are by those grand curling horns; and at Oxford, if we may augur from this home-show, the Dorsets and Somersets will well maintain their right to that distinction as a breed which the Royal Society has at length accorded them in the arrangement of the classes. Noticeably enough, at Southampton last year, although as handy, there were not in all a dozen entries of these sheep, whereas at Taunton there were upwards of twenty shearing rams in competition, with numerous commendations appended to the actual awards. Mr. Henry Mayo, who

has given much attention to his flock, clearly understands not merely how to breed a sheep, but how to show him; and his rams were very artistically turned out. Smart, however, as is the winning shearling, Mr. Herbert Farthing's second was almost equally good; and in the smaller class of old rams, a sheep from Nether Stowey of fine character and size had a long way the best of it. There was a time when Mr. Danger was altogether too strong for his friends and neighbours, but his flock now in the hands of Mr. Bond can reach no higher than seconds or commendations. Mr. Farthing's pen of ewes had also more spread and use about them; and in a capital class, where everything came in for some compliment, they were unmistakably the biggest and best. In truth, generally good as the three classes were, they were thought to have been very properly appraised; as were the smaller and more active Exmoors, also in greater force, and really running into something like competition. But, when enforcing a certain economical arrangement, the West of England Society, as we have already shown, calls upon two men of different tastes to judge Shorthorns and Herefords, as it entrusts horses of all kinds to one agricultural and one "nag" authority, so it puts a Southdown fancier in couples with somebody nearer home to get through the Horns and Downs. And here more particularly the system broke down. If there were little or no complaint amongst the Dorsets and Somersets, the Sussex breeders fairly stood aghast over the capricious and altogether inexplicable reading of a Southdown, as here delivered. First of all the judges took a very neat, true shearling from Buckland, and this they placed first. They next selected a sour headed, lop-eared animal, as all over one of the worst sheep the Heasmans have ever entered, and this they placed second; and then they commended and highly commended three rams of Mr. Rigden's, standing close along-side, any one of which for Down character, style, or quality, was better than their second prize. In fact, Mr. Rigden should have been first, if not first and second, and after him Sir William Throckmorton. All the Heasmans' sheep were below their standard, and Mr. Neville-Grenville, Mr. Harding, and Mr. Brook had nothing that could come into competition with the Southdown-bred rams. Amongst the older sheep, it was, alas! only confusion worse confounded. Sir William Throckmorton's first prize in an excellent class of old rams at Manchester was now merely commended, although at three years old he does not seem to have suffered much from wear-and-tear. On the contrary, Mr. Rigden's two-shear, second at Southampton, has done well in the interim, there being considerable improvement on his first-year's form; and he got the turn of fortune's wheel as first and best. But then, to separate these two famous sheep the judges did precisely as they had done in the previous class, that is they selected one of the very worst sheep in the entry as their second prize! This was Lord Portsmouth's happily named No. 2, a significant title that must have gained him no. 2 place on the prize list, to which he could have in such company no other claim, for a plainer meaner sheep at most points has seldom been seen. A very bloodlike, if not very large ram of Mr. Penfold's was highly commended, and then hired for Lord Walsingham; but as a matter of consistency, Mr. Woods should have also hired, or if possible, have bought outright the renowned No. 2, whose merit altogether passeth show. Mr. Rigden did not send his ewes, and Mr. Grenville's pen was accordingly pronounced to be superior to that of Sir William Throckmorton.

Barring Mr. Morrison's shearling, a very moderate one, and not to compare with his last year's specimen, Mr. Rawlence took all the prizes from Hampshires, of which there was a short and indifferent show; and the Shrop-

shires, as might have been expected, were in no force although here occurred one of the sensations of the meeting. Lord Falmouth's entries, which had been winning last week in Cornwall, were disqualified, as unfairly shorn, and certainly the appearance of the two-shear ram, more especially, went far to condemn him. He is otherwise a great grand sheep, and a long way the best, not of his class, for there was no class, but of the breed. The best shearing was a useful sheep of some quality, and Lord Chesham's still very neat rams are getting more Shropshire character, the more especially about their heads; but the ewes are still all of the Downes, as they are certainly of a very different type to Mr. Horton's black faces, which in a class, reduced to three entries, came all the way for a commendation. The inspector drew out his pruning knife again in the following section of Oxford Downs, where he disqualified the Burghfield pen of ewes, much to Mr. Milton Druce's astonishment and disgust, and in this case an appeal was straightway lodged after the following fashion:—"To the Secretary of the Bath and West of England Society, Show Yard, Taunton, June 7, 1870. SIR,—With reference to my pen of Oxfordshire Ewes, No. 305, 'unfairly shorn,' I beg to say that my certificate of entry is perfectly correct, and I can bring evidence to prove it. I will thank you to lay this letter before the Council. I am, Sir, your obedient servant, A. F. Milton Druce." Otherwise the Oxford Down classes were of but little mark, the breeders evidently holding back the strength of their hands for Oxford, for which there is an extraordinary entry, one man having, as it is said, between 20 and 30 nominations in the shearing class. Mr. Wallis' old sheep distinguished himself at Leicester and Manchester, and Mr. Charles Gillett's ewes were very good indeed.

The Messrs. Gould took all the first prizes for Leicesters, and they also exhibited in the Devon Long-wool classes, where the sheep pretty generally seemed to be Leicesters, or Leicesters once removed; and straight-way the rumour of a protest got about. But Mr. Bartholomew would know that down his way there are breeders who exhibit Leicesters and also Lincolns, the inference being that two distinct flocks are maintained; and certainly the Poltimore Leicesters are of a finer type than the Devon Long-wools, which look, beyond a certain rough coarse character, to have no remarkable merit as either a new or an old breed. The highest-bred Leicester as it struck us was Mr. Tremaine's second-prize shearling, the first at Falmouth the other day, and that on the score of style and quality might have been first again here. The Hill-men still hold off; and almost the only good Cotswolds were those supplied from the late Mr. Gillett's flock. Otherwise, in so small an entry there were never perhaps so many bad sheep; as certainly there should not be at a show of such calibre as that of the old West of England Society.

The exhibition of horses was much after the same fashion—that is, the classes were mainly made up of two or three good and the remainder as decidedly bad. And yet where horses went far to judge themselves, never did two old hands so potter about as Messrs. Howard and Thurnall. Great as are the attractions of the ring-side, people got weary of watching, and went away and came back again, only to find these slow-tops now walking, now trotting, now cantering, and now stripping some wretched animal that might have been drafted at half a glance. This is a very conscientious way of proceeding no doubt; but we believe that a man may bother his own eye by dwelling so much, and towards the end of the day, when the judges seemed to be really as tired of it as the spectators, some of the awards gave anything but satisfaction. There were three

or four particularly nice hunting horses, at the head of which was a Pontifex three-year-old, called Splash-water, an airy, sweet stylish horse, with the "manners" of a park hack, and altogether delightful riding action. The Lincolnshire judge bought him forthwith, as it was said for Mr. Chaplin, and Splashwater, no doubt, will be seen again in the ring. The three four-year-olds placed were again all very good; the winner being worth the most as a matter of weight, but the grey is the neater nag of the two, and Mr. Michelmores's three and four-year-olds, both worth looking after. In fact, had the filly been ridden she should have been put second to the Yorkshire horse, as Mr. Battams' Irish chesnut is a vulgar, servant's sort of animal, neither remarkable for looks nor action. There was a deal of talk over another Irish nag, Hunting Horn, that, as a raw colt, took a prize at Southampton, while he was here pronounced to be the best of the all-aged class. He is a narrow high horse, but a slashing goer, and with such upright shoulders, rather to be commended as a second-class steeplechaser than as a pleasant horse to ride. Mr. Battams had a couple of useful horses in this class; but the competition was by no means keen, and the whole lot might bear a mediocriter mark. A half-brother to Splashwater was entered amongst the yearlings, and another bloodlike promising colt he is, with the walk of a race horse and the makings of a Leicestershire hunter. And over his head the judges put a quick varmint hackney thing, with a bob-tail, that could no doubt move a bit; but in a class of hunting colts or fillies a more extraordinary mistake was never committed. It is only to be hoped that the judges may be induced to write their own report for the Society's *Journal*, and so take the opportunity of explaining what so far looks like an inexplicable award. Mr. Battams' big chesnut cob is cut out to carry an alderman or a banker, and the London dealers should look him up forthwith; and so most assuredly they showed Mr. Ballard's pony—a very perfect little horse by Hospodar, standing some thirteen hands and a-half high. He has a beautiful lean head, a clean neck, fine shoulders, a round barrel, and famous thighs and quarters. In fact, he is as full of style and fashion as he can be, whether you throw the rein on his neck and let him stand still, as well he knows how, or set him going. The only thing against the Cowbridge pet is that he is ridden in a very severe long ported bit, against which he looked to bore a little in his faster paces. Of course he was first, as was a merry little high-stepping chesnut in the next class; but neither of their seconds was well selected, and no doubt there were better amongst the remainder. Mr. Trot's bay poked his head out in a ring-saffle, but in Mr. Ballard's bridle, and with Mr. Ballard to ride him, he would have shown very differently, and at three years old, with plenty of time to make him, was the most serviceable pony of his class; and he was not placed even second.

The best cart stallion was a long way the best of the lot—a deep weighty good-looking grey, that could move; while the second prize was a very moderate beast, and none of the others of such mark. Mr. Tice's brown two-year-old also showed to great advantage in the ring, being, indeed, a very taking colt of a capital colour, with good ends and plenty of liberty for a cart horse. The best looking, if not, indeed, the only good looking, cart mare was Mr. Gollidge's Wiltshire brown, but she was lame, and so straightway disqualified, as we trust from some hereditary defect, for unsoundness in a brood mare is otherwise of little or no detriment. The world, however, for a wonder was heartily sick of the horse-ring by the time the turn came for the cart horses, and the blaze of the afternoon sun left the twain moving them

here and there, and there and back again, like an over-played game at drafts.

The pig show, taken right through, was decidedly good, and the judges occasionally commended whole classes. As usual, however, the big pigs did not tell much; and of the two classes of boars, the first in each alone claimed any particular attention. The Bedford pigs certainly seem to be doing and showing better and better; although, whether the credit of this be due to the breed or the management, we will not stay to discuss here. The prizes and the commentary thereon would run much the same with the large sows, saving that Mr. Dove fairly beat both Bedfordshire and Lincolnshire in the couples with two very admirable young white sows, bred by Mr. Rake, of Bristol; who, however famous he may be this time, we confess to have never heard of before. In the small breeds, Mr. Ware, from Cornwall, took first and second prizes for old boars with own brothers, and two of the very best pigs on the ground. They are of the improved Essex breed which would seem to have taken fresh root further west, and to have wafted the fame of Fisher Hobbs to the very Land's End. The younger class of small boars was by no means so good; but the small sows, in both classes of which the awards went precisely the same way, had much merit, the elder single entry sows being one of the very best in the show. And at the head of this stands Messrs. Duckerings' Lily, half sister to Little Queen, about the most renowned pig of her era. The Berkshires had this year a section to themselves, and they proved how thoroughly they deserved the compliment; for some of the best pigs, and the very best farmer's pigs, were to be found here. The advantages of Science with Practice were further pointed by far away the best boar having been bred and reared at the Cirencester College. Giving, as a racing man would say, Mr. Heber Humfrey and Sir William Throckmorton "lots of weight" in the way of age, for he was only a day too old for the younger class, Sambo's superiority as a high-quality but still true Berkshire was very manifest. His awkward age let in Mr. Stewart for both premiums amongst the juniors, where the College and Mr. Humfrey had again some very good entries, but Mr. Stewart enjoys an established repute for Berkshires. The whole class of sows was commended, and when the judges had reduced their field to five they were still in something of a difficulty, so altogether admirable was the entry. Very noticeably the winner turned up in a sow with rather too much white about her, shown by the Duckerings but bred by Mr. Griggs in Essex; and thus from thirteen entries eight prizes go to Lincolnshire, of four entries from the Britannia farms, three are returned as winners, while Mr. Stewart takes precisely a similar proportion, three prizes and one blank. There was no competition in the class of young sows in couples, for Mr. Bailey, of Swindon, who had made some entries, did not care to send on.

The non-prize system of the West of England Society would seem to be fast bringing the implement business to a crisis. Either on the ground or at the trials it is scarcely possible to imagine the indifference which was displayed by the visitors to so important a section of the show. Although the field was within a stone's throw of the entrance to "the yard," as it is called in contradistinction, very few people beyond the exhibitors or their staff cared to give even a passing visit, and as neither the rye for the reapers nor the grass for the mowers afforded much opportunity for the display of good work, the trials, as a contemporary has it, were "somewhat mild." Certain of the manufacturers positively refused to cut into such poor crops, but Woods had out a new reaper that was said to have not made much mark, and the Howards, the Hornshys, and Burgess and Key were also represented in

the field. The ploughing was more interesting, and Pirie, shepherded by Fowler and Co., was declared to have achieved some noticeable improvement even on the very perfect implement we have already in use. Of course, some of the great houses, like the Rausomes and the Howards, also had a bout or two; but only imagine a ploughing match without prizes! a salad without the dressing, an opera without the orchestra, or a battle fought with blank cartridge. As one straightforward fellow told us with a significant smile, "of course we did the best work, sir," and no wonder if the Society has quietly dropped out these trials from its own official report. They were certainly never so tame as at Taunton; but, only let the Council offer, say, £100 in premiums, for novelties on the stands or in the field, and a new spirit would be infused into these proceedings. We gave in our last week's number a list of the agricultural implement makers exhibiting, and these, without any such incentive or attraction, had to vie with premiums not only for cattle and sheep, but for poultry and flowers, and lucky numbers in the Fine Arts lottery.

The following is a list of the exhibitors of implements :

Afleck, Swindon; Amies, Barford, and Co., Peterborough; Andrews, Melksham; Ashby, Jeffery, and Luke, Stamford; Baker, Wisbech; Baker, Compton, Newbury; Baker, Bristol; Bamlett, Thirsk; Bayliss, Jones, and Bayliss, Wolverhampton; Beach and Co., Dudley; Beale, Taunton; Bentall, Maldon; Bell Brothers, London; Beverley Iron and Waggon Company, Beverley; Beare, Liverton, Newton Abbot; Belcher, Gee, and Co., Gloucester; Boby, Bury St. Edmunds; Boulton and Co., Norwich; Bradford and Co., Manchester; Brenton, Polbathic, Cornwall; Bristol Implement Company, Bristol; Bristol Waggon Works Company, Bristol; Browne and Co., Bridgwater; Brock, Bristol; Brown Brothers, Lyme Regis; Brown and May, Devizes; Burman, Taunton; Burgess and Key, London; Cambridge E. and Co., Bristol; Carson and Sons, London; Carson and Toone, Warminster; Carter and Co., London; Clayton and Shuttleworth, Lincoln; Coleman and Morton, Chelmsford; Colthurst, Small, and Co., Taunton; Colthurst, Symons, and Co., Bridgwater; Corbett, Shrewsbury; Cranston, Birmingham; Cullingford, Stratford; Davey, Devonport; Davis, London; Day, Bridgwater; Day, Crewe; Day, Son, and Hewitt, London; Dear, Southampton; Deuing and Co., Chard; Denton, Wolverhampton; Dodge, London; Duffield, London; Eddy, Kennford, Exeter; Fisher, Taunton; Follows and Bate, Manchester; Fowler and Co., Leeds; Fox, Walter, and Co., London; Fuller, Bath; Gardner, Gloucester; Garrett and Sons, Saxmundham; Garton and King Exeter; Gibbons, Wantage; Gliddon, Taunton; Goss, Plymouth; Gray and Co., Glasgow; Haward, Tyler, and Co., London; Hardon, Manchester; Hayman and Co., Exeter; Haynes and Sons, London; Headley and Son, Cambridge; Heard, London; Heap, Manchester; Hellard, Taunton; Hill and Smith, Brierley Hill; Hindley, Bourton, Dorset; Hilton and Co., London; Hill, Yeovil; Hobbs, Basingstoke; Hoobes and Son, Norwich; Hornsby, Grantham; Howard, Bedford; Hudspeth, Haltwhistle; Humphries, Pershore; Hunt, Earls Colne; Hutchings, Exmouth; Huxtable, Ottery St. Mary; Inman, Stratford; Jaque, Abergavenny; James, Cheltenham; Johnson, London; Jones, London; Jones, Gloucester; Kallend and Son, Taunton; Kiddle, Salisbury; King, London; Larkworthy and Co., Lowesmoor; Le Butt, Bury St. Edmund's; Lee, Gloucester; Lewin, Poole; Lewis and Hoole, Shrewsbury; Lyon, London; Main and Co., London; Major and Co., Bridgwater; Marshall, London; Marshall, Sons, and Co., Gainsborough; Marshall, Upton Pyne; McNaught and Smith, Worcester; Menuel and Co., London; Milford, Kenn; Milburn and Co., London; Milford, Thorverton; Mitchell and Co., Manchester; Moule's Patent Earth Closet Company, London; Nell, Harrison, and Co., London; Newham and Son, Bath; Nicholson, Newark; O'Hanlan and Co., Bristol; Page and Co., Bedford; Parnall and Son, St. Thomas, Exeter; Parham, Bath; Peace, Bridgwater; Penney and Co., Lincoln; Perkins and Bellamy, Ross; Perman, Salisbury; Petter,

Yeovil; Phillips, Newton Abbott; Picksley, Sims, and Co., Leigh; Piggott Brothers, London; Plowman, Bridgwater; Powis C. and Co., London; Powis J. and Co., London; Priest and Woolnough, Kingston-on-Thames; Ramsbottom and Co., Leeds; Ransomes, Sims, and Head, Ipswich; Reading Iron Works, Reading; Reeves, Westbury; Rendle, London; Richards, Wincanton; Richmond and Chandler, Salford; Roberts and Sons, Bridgwater; Robey and Co., Lincoln; Robinson, Wembdon; Rollins, London; Ruston, Proctor, and Co., Lincoln; Samuelson and Co., Banbury; Savery, Taunton; Sawney, Beverley; Silvester, London; Simpson and Co., London; Simpson and Son, Melksham; Smith and Sons, Chard; Smith and Grace, Thrapston; Southwell and Co., Rugeley; Spong and Co., London; Standfield and Crosse, Exeter; Stiles, London; Sutton and Sons, Reading; Tasker and Sons, Andover; Thomas, Bridging; Thomson, Perth; Thompson, Brothers, Bridgwater; Tipper, Birmingham; Tuck and Son, Bath; Turner, Ipswich; Tuxford and Sons, Boston; Vezey, Bath; Waide, Leeds; Wallis and Steevens, Basingstoke; Watson, Andover; Wensley, Mark; Winter, Wiveliscombe; Wise Brothers, Bristol; Wood, London; Woods, Cocksedge, and Warner, Stowmarket; Woofe, Bedford; Worssam and Co., Chelsea.

PRIZE LIST.

CATTLE.

DEVONS.

JUDGES (and for Sussex and Channel Islands Cattle):—

J. Piteher, Hailsham, Hurst-Green.
R. Warren, Childokeford, Blandford.

Bulls, exceeding two and not exceeding four years old.—First prize, £20, Viscount Falmouth, Tregothnan, Probuss (Narcissus); second, £10, J. Howard Buller, Downes, Crediton; highly commended, Walter Farthing, Stowey Court, Bridgwater (Duke of Gotthelney); commended, J. Davy, (Duke of Flitton 4th).

Bulls, not exceeding two years old.—First prize, £20, J. Davy, Flitton Barton, North Molton (Duke of Flitton 5th); second, £10, W. Smith, Hoopern, Exeter (Pennsylvania); highly commended, J. Jackman, Hexworthy, Launceston; commended, J. A. Smith, Bradford Peverell, Dorchester (Duke of York).

Cows, in calf, or in milk.—First prize, £15, J. Davy (Actress); second, £13, W. Smith, Hoopern (Musk); highly commended, J. A. Smith (Daisy); commended, J. A. Smith (Pet).

Heifers, in calf, or in milk.—First prize, £15, Walter Farthing (Pretty Maid); second, £10, J. A. Smith (Picture).

Heifers, not exceeding two years old.—First prize, £10, J. Davy (Temptress 2nd); second, £5, W. Smith (Duchess) highly commended, T. Hawkes Risdon, Washford, Taunton, (Alexandra). The class commended.

SHORTHORNS.

JUDGES (and for Herefords):—

M. Savidge, Sarsden, Chipping Norton.
W. Yeoman, Stretton Court, Hereford.

Bulls, exceeding two and not exceeding four years.—First prize, £20, G. Garne, Churchill Heath, Chipping Norton (Royal Butterfly 20th); second, £10, Lord Sadeley, Toddington, Winchcomb (Manderin); highly commended, Rev. R. B. Kennard, Marnhull, Blandford (Oxford Duke).

Bulls, not exceeding two years.—First prize, £20, Lady Emily Pigot, Branches Park, Newmarket (Bythis); second, £10, R. Stratton, Burderop, Swindon (Majesty); highly commended, G. Hitchman, Long Ashton, Bristol (Chancellor).

Cows, in calf, or in milk.—First prize, £15, G. Garne (Pride of the Heath); second, £10, R. Stratton (Coriander); highly commended, O. Ilosegood, Dillington, Ilminster (Ursula 15th); commended, J. Dove, Hambrook House, Hambrook (Cherish).

Heifers, in calf, or in milk.—First prize, £15, R. Stratton (Peeress); second, £10, Lady Emily Pigot (La Belle Hélène); highly commended, W. H. Hewett, Norton Court, Taunton (Violet).

Heifers, not exceeding two years old.—First prize, £10, R. Stratton (Gertrude); second, £5, R. Stratton (Flower Girl); highly commended, Rev. R. B. Kennard (Oxford Duchess), J. Webb, Fladbury, Pershore (Bella), J. T. Robinson, Leckby

Palace, Asenby, Thirsk (Lady Hightborne), and Lady Emily Pigot (Mautilina 2nd); commended, J. Dove (Bankeia Rose), and W. H. Hewett (Annette 3rd).

HEREFORDS.

Bulls exceeding two and not exceeding four years.—First prize, £20, T. Thomas, St. Hilary, Cowbridge, Glamorgan (Sir John 3rd); second, £10, J. Baldwin, Ludington, Stratford-on-Avon (Lord Ashford); highly commended, J. Gifford, North Cadbury, Castle Cary (Brigadier) and N. Benjafield, Short's Green Farm, Motcombe, Shaftesbury (Theodore); commended, J. H. Arkwright, Hampton Court, Leominster (Sir Richard) and J. Morris, Town House, Madley, Hereford (Stow).

Bulls not exceeding two years old.—First prize, £20, P. Turner, The Leen, Pembridge, Leominster (Trojan); second, £10, H. N. Edwards, Broadward, Leominster (Sir John); highly commended, J. Harding, Bicton, Shrewsbury (Count Fosco).

Cows in calf, or in milk.—First prize, £15, J. H. Arkwright (Hampton Beauty); second, £10, T. Thomas (Lizzie); highly commended, J. D. Allen, Tisbury, Salisbury (Fairy 3rd).

Heifers in calf, or in milk.—First prize, £15, W. Tudge, Adforton, Leintwardine (Silver Star); second, £10, P. Turner (Livia).

Heifers not exceeding two years.—First prize, £10, T. Thomas (Sunbeam); second, £5, J. D. Allen (Lovely); highly commended, J. Harding (Dahlia), W. Tudge (Lady Brandon); commended, P. Turner (Butterfly), J. H. Arkwright (Lively), J. Morris (Chignon), T. Fenn, Stonbrook House Ludlow (Duchess of Bedford 6th).

SUSSEX.

Bulls not exceeding two years.—First prize, £20, J. Turvill, Hartley Park Farm, Alton (Young Martin); second, £10, G. Jenner, Parsonage House, Uddimore, Rye (Young Taunton).

Cows in calf, or in milk.—First prize, £15, Tilden Smith, Knell, Beckley, Ashord, Sussex (Fagz); second, £10, J. Turvill (Rose); highly commended, Tilden Smith (Fatty).

Heifers in calf, or in milk.—First prize, £15, Messrs. J. and A. Heasman, Augmering, Arundel (Southampton); second, £10, J. and A. Heasman (Beauty); commended, G. Jenner (Young Cooke).

CHANNEL ISLANDS.

Bulls, not exceeding four years.—First prize, £10, G. Digby Wingfield Digby, Sherborne Castle, Sherborne (Sir Jerry); second, £5, H. Compton, Manor House, Minstead, Lyndhurst (Prince); highly commended, R. C. Priddle, North Stoneham, Southampton (Briton); commended, W. C. Drake Esdaile, Burley Manor, Ringwood (Marquis), and W. Gibbs, Tynesfield, Bristol (Red Knight).

Cows in calf, or in milk.—First prize, £10, W. Gibbs; second, £5, H. Compton (Ada). The class commended.

SHEEP.

LEICESTERS.

JUDGES (and for Other Long-wool Sheep):—

W. Bartholomew, Waddington Heath, Lincoln.

T. Brown, Martram, Downham Market.

Yearling rams.—First prize, £10, J. and A. E. Gould, Poltimore, Exeter; second, £5, J. Tremain, Polsue, Grampound, Coruwall.

Rams of any other age.—First prize, £10, J. and A. E. Gould; second, £5, G. Turner, Bramford Speke, Exeter; highly commended, J. Tremain.

Pens of five yearling ewes.—First prize, £10, J. and A. E. Gould; second, £5, J. B. Corner, Longforth, Wellington.

COTSWOLDS.

Yearling rams.—First prize, £10, the executors of the late T. Gillett, Kilkenny, Faringdon; second, £5, the executors of the late T. Gillett.

Rams of any other age.—First prize, £10, the executors of the late T. Gillett, Kilkenny, Faringdon Oxford; second, £5, T. B. Browne, Salperton Park, Andoversford; commended, J. Williams, Caerady, Cowbridge, Glamorganshire.

Pens of five yearling ewes.—First prize, £10, the executors of the late T. Gillett; second, £5, J. Williams; commended, T. B. Browne.

DEVON LONGWOOLS.

Yearling rams.—First prize, £10, R. Corner, Torweston, Williton, Somerset; second, £5, R. Corner; highly com-

mended J. and A. E. Gould, Poltimore, Exeter; commended, R. Corner.

Rams of any other age.—First prize £10, Elizabeth Gibbings, Higher Brenton, Kennford, Exeter; second, £5, R. Corner; highly commended, G. Kingdon, Rodmore, Devon.

Pens of five yearling ewes.—First prize, £10, J. B. Corner; second, £5, J. B. Corner.

SOUTH-DOWNS.

JUDGES (and for Short-wool Sheep):—

F. Budd, Hatchwarren Farm, Basingstoke.

H. Woods, Merton, Tretford.

Yearling rams.—First prize, £10, Sir W. Throckmorton, Bart., Buckland, Faringdon, Berks; second, £5, J. and A. Heasman, Augmering, Arundel; highly commended, W. Rigden, Hove, Brighton; commended, W. Rigden (for two more rams).

Rams of any other age.—First prize, £10, W. Rigden; second, £5, the Earl of Portsmouth, Hurstbourne Park, Whitechurch, Hants; highly commended, Sir W. Throckmorton and H. H. Penfold, Selsey, Chichester; commended, Sir W. Throckmorton.

Pens of five yearling ewes.—First prize, £10, R. Neville-Grenville, M.P., Butleigh-court, Glastonbury; second, £5, Sir W. Throckmorton.

HAMPSHIRE DOWNS.

Yearling rams.—First prize, £10, A. Morrison, Fonthill House, Tisbury; second, £5, J. Rawlence, Bulbridge, Wilton, Salisbury.

Rams of any other age.—First prize, £10, J. Rawlence; second, £5, J. Rawlence; commended, J. Moore, Littlecott, Pewsey.

Pens of five yearling ewes.—First prize, £10, J. Rawlence; second, £5, J. Rawlence; highly commended, J. Barton, Jun., Hackwood, Basingstoke.

SHROPSHIRE.

Yearling rams.—First prize, £10, H. Wood, Pucknall Farm, Romsey; second, £5, Lord Chesham, Chesham, Latimer, Bucks; commended, Lord Chesham.

Rams of any other age.—No award.

Pens of five yearling ewes.—First prize, Lord Chesham; second, £5, H. Wood; highly commended, T. Horton, Ilanage Grange, Shrewsbury.

OXFORDSHIRE DOWNS.

Yearling rams.—First prize, £10, C. Gillett, Cote House, Bampton, Oxfordshire; second, £5, C. Gillett.

Rams of any other age.—First prize, £10, G. Wallis, Old Shifford, Bampton, Faringdon; second, £5, C. Gillett.

Pens of five yearling ewes.—First prize, £10, C. Gillett; second, £5, E. Gillett, Upton Down, Burford.

SOMERSET AND DORSET HORNS.

Yearling rams.—First prize, £20, H. Mayo, Coker's Frome, Dorchester; second, £5, H. Farthing, Nether Stowey, Bridgwater; highly commended, H. Mayo, J. W. James, Map-powder Court, Blandford, A. J. Pitfield, Eype, Bridport; commended, E. Gapper Legg, Coombe Down, Beaminster.

Rams of any other age.—First prize, £10, H. Farthing; second, £5, A. Bond, Huntstile, Bridgwater.

Pens of five yearling ewes.—First prize, £10, H. Farthing; second, £5, J. Culverwell, Classey Farm, Bridgwater; highly commended, R. Welch, Stocklinch, Ilminster, A. Bond, Huntstile, W. B. Peren, Compton House, South Petherton; commended, H. Mayo.

EXMOOR AND OTHER MOUNTAIN SHEEP.

Rams of any age.—First prize, £10, J. Quartly, West Molland, South Molton, Devon; second, £5, J. Davy; commended, J. Quartly.

Pens of five ewes of any age.—First prize, £5, Sir T. Dyke Ackland, Bart., Holnicote, Minehead; second, £3, W. Smith, Hoopern.

INSPECTOR OF SHEARING:—H. Bone, Avon, Ringwood.

HORSES.

JUDGES:—F. C. Howard, Temple Brewer, Sleaford.

H. Thurnall, Royston.

FOR AGRICULTURAL PURPOSES.

Stallions foaled before 1868.—First prize, £25, J. Hitchcock, Chitterne All Saints, Heytesbury, Wilts (Lion); second £15, J. Joyce, Great Wadham, South Molton (Young

Matchless); highly commended, William Pocock, Edington Burtle, Bridgwater (Young Invincible).

Stallions foaled in 1868.—First prize, £20, W. Tyce, Westonzoylead, Bridgwater (Young President); second, £10, J. Hitchcock (The Brown Duke). Highly commended, H. L. Heath, Weare, Weston-super-Mare (Farmer's Glory).

Mares and foals or in foal.—First prize, £15, J. Hutton, East Breat, Weston-super-Mare (Blossom); second, £5, Mrs. Elizabeth Burbidge, South Wraxhall, Bradford-on-Avon, Wilts (Blossom); commended, E. Gibbs, Chitterne, Heytesbury.

HUNTERS.

Mares or geldings, foaled before the 1st January, 1866.—First prize, £25, C. Champney, Theale, Wells (Hunting Horn); second, £10, G. B. Battams, Kilworthy, Tavistock, Devon (Seneschal); commended, G. B. Battams (Dartington); N. Chichester, Newport, Barnstaple (Privateer).

Mares or geldings, foaled in 1866.—First prize, £25, G. B. Battams (Epicure); second, £10, G. B. Battams (Grimaldi); highly commended, J. Michelmore, Berry Pomeroy, Totness (Lady Maud).

Fillies or geldings foaled in 1867.—First prize, £10, J. T. Robinson, Leckby Palace, Asenby, Thirsk (Splashwater); second, £5, G. B. Battams (Tophorne); commended, E. Ashley, Honiton (Harkaway).

Colts or fillies foaled in 1869.—First prize, £10, J. Joyce, Great Wadham, South Molton; second, £5, J. T. Robinson (Bellringer); commended, E. Ashley.

HACKS.

Mares or geldings, not more than six years, nor exceeding 15 hands.—First prize, £15, G. B. Battams (Gladiator); second, £5, W. B. Peren, Compton House, South Petherton (Comet).

PONIES.

Mares or geldings, not exceeding 14 hands.—First prize, £10, J. S. Ballards, The Verlands, Cowbridge (Chicken Hazard); second, £5, W. S. Gibbs, Pitminster House, Taunton (Banker); commended, Rev. T. H. House, Anderson Rectory, Blandford.

Mares or geldings, not exceeding 13 hands.—First prize, J. Thomas, Cardiff (Minnie); second, £5, J. Louch, Langport (Feggy); highly commended, J. Trott, Southill, Barton (Collumpton); commended, J. Copins, St. Cleer's, Taunton (Little Joe).

PIGS.

JUDGES:—J. Coate, Hammoon, Blandford.
J. Smith, Henley-in-Arden.

LARGE BREED.

Boars above one year and not exceeding two.—First prize, £5, J. and F. Howard, Britannia Farms, Bedford; second, £3, R. E. Duckering and Son, Northorpe, Kirton Lindsey, Lincolnshire.

Boars not exceeding one year old.—First prize, £5, R. E. Duckering and Son; second, £3, R. E. Duckering and Son.

Breeding sow in farrow, or with litter.—First prize, £5, J. and F. Howard; second, £3, R. E. Duckering and Son. The class highly commended.

Pens of two breeding sows, not exceeding nine months old. First prize, £5, J. Dove, Hambrook; second, J. and F. Howard.

SMALL BREED.

Boars, above one year old, and not exceeding two.—First prize, £5, W. M. Ware, Newham House, Helstone, Cornwall; second, £3, W. M. Ware. The class highly commended.

Boar, not exceeding one year old.—First prize, £5, T. R. Cornish, Wolfsgrove, Bishop's Teignton, Teignmouth; second, £3, R. E. Duckering and Son; highly commended, T. Taylor.

Breeding sows in farrow, or with litter.—First prize, £5, R. E. Duckering and Son; second, £3, T. Taylor, Pool, Taunton. The class highly commended.

Pens of breeding sows, not exceeding nine months old.—First prize, £5, R. E. Duckering and Son; second, £3, T. Taylor.

BERKSHIRES.

Boars, above one year old, and not exceeding two.—First prize, £5, R. Swanwick, Royal Agricultural College Farm, Cirencester; second, £3, H. Humfrey, Kingstone Farm, Strivenham.

Boars, not exceeding one year old.—First prize, £5, A.

Stewart, Saint Bridge House, Gloucester; second, £3, A. Stewart.

Breeding sows in farrow, or with litter.—First prize, £5, R. E. Duckering and Son; second, £3, A. Stewart. The class highly commended.

Pens of two breeding sows, not exceeding nine months old.—First prize, £5, R. Swanwick; second, £3, H. Humfrey.

HORSE SHOEING.

First prize, — Sawyer; second, J. Batten; third, B. Tucker. Commended: T. King, G. Humphries, and G. Ayres.

THE ANNUAL MEETING

Was held in the Council Tent on Wednesday. Sir Stafford Northcote, M.P., President for the year, who only arrived in England from Quebec on the previous day, took the chair.

Mr. GOODWIN, the secretary, then read the following

REPORT.

The steady progress and financial prosperity of the Society afford legitimate ground for congratulation on the occasion of its 93rd anniversary meeting. The funded stock, which during the year has been augmented by the purchase of £576 8s. additional three per cent. consols, now amounts to £5,500, invested in the names of Sir John Thomas Buller Duckworth, Bart., Mr. Thomas Dyke Acland, M.P., and Mr. Jonathan Gray, the trustees of the Society. The Council have to lament the removal, by death, of several valued members, including Lord Taunton, who, so recently as the year 1865, filled the office of president, and who evinced a lively interest in promoting the Society's second visit to a locality with which he had long been honourably associated; but they have the satisfaction to report an encouraging addition to the list of subscribing members. There are at present on the Society's books 82 life members, 142 governors subscribing £2 or upwards annually, 648 members subscribing £1 annually, and 225 members subscribing 10s. annually. The past year has witnessed the termination of the long-pending suit of *Byrne v. Wintle*, which involved a collateral issue whether the Society was entitled to receive in full an annuity of £25 from the late Mr. Slack, of Bath, and the Council regret to report that as the pure personality of the testator proved insufficient to meet the demands with which he had charged it, the Master of the Rolls has ordered the transfer of £49 14s. 7d. consols to the Society in full settlement of its claims. The costs of the society as allowed on taxation, have, however, been paid out of the testator's estate. It is to be hoped that the contemplated meeting at Guildford during the ensuing year will firmly cement the union recently contracted between the Western and Southern counties, and tend to the development of the agricultural and commercial resources of the two great districts, which, though geographically remote, have in many respects a community of interest.

The Council congratulate the members on the very encouraging auspices under which the Society for a second time visits the town of Taunton, where its first migratory meeting was held eighteen years ago; and a comparison of the entries of stock and implements on the two occasions may be satisfactorily cited in illustration of the advantage of changing the place of meeting from year to year.

At the Taunton meeting in 1852 there were 241 entries of stock, and the implements enumerated and described in the catalogue were 486 in number. At the present meeting there are 520 entries of stock, the largest number ever made for the Society's own prizes; whilst there are 175 exhibitors of implements, and not less than 2,965 articles, including 50 steam engines.

In order to encourage pictures of higher merit than those usually shown at the Society's meetings, the Council have this year granted the sum of £100 to enable the Arts Committee to render the Art Union more popular and attractive by the offer of prizes of greater value than the unassisted proceeds from the sale of Art Union tickets would justify. As every member of the Society who has complied with the regulation published in the Society's official programme is entitled to a chance, it is hoped that this arrangement will prove generally satisfactory.

With the commencement of a third series of the Society's Journal it was thought desirous to publish two parts or volumes annually, and the volumes published in accordance with this resolution have been forwarded in due course to all members entitled to receive them. The arrangement, however, is too costly to permit of its continuance, and it is proposed after the present year to limit the publication to one part or volume only. In accordance with this arrangement, the second volume of the Journal, 3rd series, will be published as soon as possible after the Guildford meeting in 1871; but it is hoped that reports of the Taunton meeting, published separately but corresponding in type, form and size with those of the Journal itself, may be in the hands of members within a brief period after the termination of the meeting.

The Council, having regard to the usage of the Society that the President for any year shall be non-resident in the county wherein the annual meeting is held, recommend that the Right Hon. the Earl of Cork and Orrery, Lord-Lieutenant of the County of Somerset, be elected President for the year ending with the Guildford meeting. They also recommend that the Right Hon. Sir Stafford Northcote, Bart., and Edward Brydges Williams, Esq., M.P., be elected vice-presidents. And they further recommend that the following members of the Society, whose names have been conspicuously published in the showyard in accordance with the bye-laws of the Society, be appointed members of the Council to supply vacancies occurring by retirement, rotation, and other causes:—

EASTERN DIVISION.

Bush, Clement, Weston, Bath.
 Danger, Thomas, Rowford Lodge, Taunton.
 Duckham, Thomas, Baysham Court, Ross.
 Gray, John, Kingweston, Somerton.
 King, J. Webb, West Everley, Marlborough.
 Knollys, J. E., Fitzhead Court, Taunton.
 Poole, Gabriel S., Brent Knoll, Weston-super-Mare.
 Stratton, Richard, Burderop, Swindon.
 Williams, Herbert, Stinsford, Dorchester.

WESTERN DIVISION.

Boscawen, Hon. and Rev. J. T., Lamorran, Probus.
 Brent, Robert, Woodbury, Exeter.
 Davy, John Tanner, Rose Ash, Southmolton.
 Daw, John, Exeter.
 Daw, R. R. M., Exeter.
 Gordon, Charles, Wiscombe Park, Honiton.
 Kennaway, J. H., M.P., Escott, Ottery St. Mary.
 Hole, James, Knowle House, Dunster.
 Holly, J. H., Oaklands, Okehampton.
 Thynne, Rev. A., Penstowe, Stratton, Cornwall.

SOUTHERN DIVISION.

Dickinson, W., New Park, Lynton, Hants.
 Grenfell, Arthur, Shalford, near Guildford.
 Portal, Wyndham, Maltranger, Basingstoke.
 Rigden, W., Hove Farm, Brighton.
 Shackel, George, Erleigh Court, Reading.
 Simmonds, W. B., M.P., Abbot's Barton, Winchester.
 Spiers, R. J., Oxford.
 Stebbing, J. R., St. Andrew's Lodge, Southampton.
 Turner, J. S., Chyngton, Seaford.

ELECTED WITHOUT REFERENCE TO DISTRICTS.

Allen, James D., Pyt House, Tisbury.
 Druce, A. F., Milton, Burghfield, Reading.
 Robertson, Henry, Over Stowey, Bridgwater.
 Vidal, E. U., Cornborough, Bideford.
 Williams, E. W., Herringstone, Dorchester.

Mr. ACLAND, M.P., moved the adoption of the report.

Mr. MURCH seconded the resolution, which was carried unanimously.

Mr. JONATHAN GRAY proposed as President for the current year the Earl of Cork and Orrery.

Mr. KNOLLYS seconded the resolution, which was carried.

The proposed Vice-Presidents and members of Council were also elected, and certain formal votes of thanks passed.

THE BATH AND WEST OF ENGLAND SOCIETY'S SHEEP SHOW.

TO THE EDITOR OF THE MARK LANE EXPRESS.

SIR,—In answer to my protest, I received the following letter from the secretary of the Bath and West of England Society. I am, sir, your obedient servant,
 Burghfield, June 18, 1870. A. F. MILTON DRUCE.

[COPY.]

Show-yard, Taunton, June 7, 1870.

To A. F. Milton Druce, Esq.

Dear Sir,—The inspector of shearing has reported to the disqualifying committee that your pen of ewes (No. 305 in the catalogue) are unfairly shorn, not as to time, but the mode of shearing; and the council, having given their best consideration to the matter, feel bound to support the decision of the inspector and disqualifying committee.

I am, dear sir, yours obediently,
 JOSIAH GOODWIN, Secretary.

We, the undersigned, do hereby certify that we saw the shearing ewes exhibited by Mr. Druce at the Taunton Show early in the month of April, and that they were all fairly and barely shorn. Witness our hands this 17th day of June, 1870:

(Signed) William Cooper, Burghfield.
 Richard Wm. Keep, Burghfield.
 Levi Hancox (working bailiff).
 Joseph Collett (shepherd).

Mr. Francis Budd, one of the judges of shortwool sheep at Taunton, writes against our remarks on the placing of the Southdowns. He commences his letter with an absurd attack on a gentleman who had no more to do with our criticism, knew no more of what would appear, and was no more consulted upon the sheep show than Mr. Budd himself. We omit only the opening of his letter, which runs on in this way:

"Had the remarks in your paper emanated from a person who really understood anything about what a sheep should be, it would have given me pleasure to prove that the sheep at Taunton were judged by the hand as well as by the eye, which may account for your not being able to understand why the prizes were given to the animals you condemn. To practical men it does appear a burlesque on agricultural writing that persons who are well known to have no experience in the things they write about should feel themselves qualified to impugn the judgment of men who, if they do not, ought to know something about their business. Too often, as it may probably be in your case, the remarks do not originate with the writer, but with disappointed exhibitors. Comparisons are generally odious; but I would ask you to look at the report of the Bath and West of England Society's exhibition in the *Bell's Weekly Messenger* of this week, which is written by a practical man, and mark the difference between his report and your own.

I am, sir, your obedient servant,
 "FRANCIS BUDD.

"Hatch Warren, Basingstoke, June 16."

We thoroughly agree with Mr. Budd in his remarks as to "men who if they do not ought to know something about their business;" while as to our criticism "originating with disappointed exhibitors," so far as we remember, we scarcely exchanged a word with any of the exhibitors whose sheep were so curiously set aside, and certainly not a syllable with Mr. Rigden, who, as we maintain, was one of the chief sufferers in this way. But what warranty here has Mr. Budd, who, according to his own account, judges sheep blindfold, for his assertion as to persons writing of things of which they have no experience? If this impertinence is intended to apply to ourselves, we may say that for nearly twenty years we have attended all the chief agricultural shows, and that during that period we have been continually invited to act as judge in certain classes—at the West of England Meetings amongst others—although we should not, perhaps, judge a Southdown after the manner of Mr. Francis Budd, of Hatch. In order, however, to do Mr. Budd every possible justice we give side-by-side the reports of *Bell's Weekly Messenger* and the *Mark Lane Express* on the Southdown show at Taunton.

BELL'S WEEKLY MESSENGER.

In the aggregate the Southdowns were notably good, nearly all the specimens exhibited being entitled to the application of that adjective, while many deserved it in the comparative and some in the superlative degree. Among the best were the entries of Sir William Throckmorton, Mr. Rigden, Mr. Neville-Grenville, M.P., and Messrs. J. and A. Heasman. Sir W. Throckmorton's first prize shearing ram was indeed one of immense excellence—so true in mould, with so completely the Down character, that it would be almost equally difficult to single out merits or discover faults. It would be perfectly true to say that he has a beautiful head, or that he is good in any particular point of structure; but as he is so evenly good all over, we should scarcely know where to begin. We are glad to see exhibitors in many instances giving as much of the pedigree of their sheep as may be necessary to afford a clue to sources whence the blood has been derived; and it is but fair to the breeders of the nearer progenitors that they should have their share of the credit when prizes are won. The catalogue entry shows that the splendid sheep in question was by Mr. Henry Webb's No. 33, dam by Sexton—a description which doubtless will make Southdown breeders sufficiently acquainted with his blood. Mr. Rigden's first prize ram, a two-shear, in the aged class, was not in form quite so near perfection as his younger neighbour, but he was an unquestionably fine sheep, with a perfect head, masculine, and at the same time characteristically Southdown. A slight failing in the mid-rib did not debar his pretensions to first-class merit. Neck, bosom, and neck-vein were as good as could be desired, and his general style was most attractive. The Earl of Portsmouth had also a good-handling clever sheep in this class, not perhaps so immediately taking to the eye as Mr. Rigden's, or as some others, exhibited by Messrs. Heasman, Mr. Penfold, and Sir W.

THE MARK LANE EXPRESS.

If there were little or no complaint amongst the Dorsets and Somersets, the Sussex breeders fairly stood aghast over the capricious and altogether inexplicable reading of a Southdown, as here delivered. First of all the judges took a very neat, true shearing from Buckland, and this they placed first. They next selected a sour-headed, lop-eared animal, as all over one of the worst sheep the Heasmans have ever entered, and this they placed second; and then they commended and highly commended three rams of Mr. Rigden's, standing close along-side, any one of which for Down character, style, or quality, was better than their second prize. In fact, Mr. Rigden should have been first, if not first and second, and after him Sir William Throckmorton. All the Heasman's sheep were below their standard, and Mr. Neville-Grenville, Mr. Harding, and Mr. Brook had nothing that could come into competition with the Southdown-bred rams. Amongst the older sheep, it was, alas! only confusion worse confounded. Sir William Throckmorton's first prize in an excellent class of old rams at Manchester was now merely commended, although at three years old he does not seem to have suffered much from wear-and-tear. On the contrary, Mr. Rigden's two-shear, second at Southampton, has done well in the interim, there being considerable improvement on his first-year's form; and he got the turn of fortune's wheel as first and best. But then, to separate these two famous sheep the judges did precisely as they had done in the previous class, that is they selected one of the very worst sheep in the entry as their second prize! This was Lord Portsmouth's happily named No. 2, a significant title that must have gained him no. 2 place on the prize list, to which he could have in such company no other claim, for a plainer meaner sheep at most points has seldom been seen. A very bloodlike, if not very large ram of Mr. Penfold's was

Throckmorton, but one that will bear inspection and improve upon acquaintance. For one-year-old ewes (pens of five) Sir W. Throckmorton took second to Mr. Neville-Grenville.

highly commended, and then hired for Lord Walsingham; but as a matter of consistency, Mr. Woods should have also hired, or if possible, have bought outright the renowned No. 2, whose merit altogether passeth show. Mr. Rigden did not send his ewes, and Mr. Grenville's pen was accordingly pronounced to be superior to that of Sir William Throckmorton.

It is only to be hoped that all these Southdown sheep may come together again at Oxford, where Mr. Budd may learn something from men who "know something about their business." As he asks for it, our impression is that Mr. Budd was never even selected as a recognised judge of Southdowns at Taunton, where, if he attempted any great lead in this way, he probably only bothered his colleague, who should really know something about this branch of their business.

JUDGING BY POINTS.

The following letter has been addressed by Lord Kinnaid to the Highland Agricultural Society:—

Dear Mr. Menzies,—I wish you would ask the directors of the Highland Society, at their first meeting, if they would agree to appoint a small committee of gentlemen who have acted as judges to consider whether it would not be possible to frame a set of rules for the guidance of judges at their shows, according to *points*, after the manner in which prizes are accorded in rifle-matches. It might be tried first with the Shorthorn class. The plan would, I am sure, give very general satisfaction. Certain points being specified, the judges would have to report their opinion on each individual point, rather than their impression of the merits of the animal generally, and by this means the exhibitors would be satisfied on what grounds their animal was rejected or approved of.

I do not like generally to question the decision of judges, and I know how difficult it is to obtain the services of experienced hands, owing in many instances to their having some interest in the stock exhibited; but still this difficulty can be overcome. Witness the judging at Inverness, Aberdeen, and Dundee, where it was at once seen by the way the judges set to work that they were well qualified for their duties. How different was the case in Edinburgh! There the gentlemen evidently had no experience in judging. There was scarcely a decision which was in accordance with the opinion of the many good judges in the yard. I should prefer not bringing my own ease forward, but it was so singular and so much to the point, and being naturally better acquainted with my own case than any other, that I must mention it.

Mr. Young, the manager for Sir W. Stirling-Maxwell—and there is not a better judge of Shorthorns in Scotland—volunteered to tell me before the judges went round, that his heifer was fairly beaten by mine; and I will venture to say, though the surprise of those looking on was great, no one could have been more surprised than Mr. Young himself at finding his heifer placed before mine. I may say *ex uno disce omnes*. I am certain that a small committee of practical men would find no difficulty in fixing the relative value of the different points in a Shorthorn; and a schedule attached to these rules, very good, good, indifferent, or bad, with relative numbers, each judge filling these up in the schedules, would lead to very satisfactory decisions, and allay much of the dissatisfaction which prevailed, to a very great extent, at the last show in Edinburgh, among the fanciers of Shorthorns.—KINNAIRD.

ON THE GROWTH OF ROOT CROPS.

BY THE NORTHERN FARMER.

The absolute necessity of having a liberal supply of winter food compels stockowners to devote a very large amount of attention to the cultivation of those root crops which suit their situation and soil, and, as a rule, the farmer's prosperity is proportionate to the quantity grown and to the success which he attains in their cultivation. The whole of the after-crops in the rotation—corn, hay, and grass—are materially affected by the treatment given to the field when preparing for seed; and in green crop, if deeply stirred and thoroughly worked, and the manure applied with no sparing hand, the succeeding crops require no care, growing with extreme luxuriance. It is easy to know the crop that is growing on a congenial soil, full of the elements of nutrition; and, on the other hand, there is no mistaking the imperfectly worked and poorly-manured soil, by the stunted and miserable appearance of the crop at every period of its growth, however favourable may be the character of the season. Fully recognizing the beneficial results to themselves which can be secured by a judicious and liberal outlay for labour and manure at this stage of their rotation, we find the most spirited and, as an almost unerring consequence, the most successful farmers in every district making the most strenuous efforts to manure well, supplementing the contents of their own yards and dung-hills by large quantities of purchased manure, frequently drawing it great distances at enormous expense. The return for such a heavy expenditure cannot possibly be immediate, but must be waited for through every year to which the rotation extends, each season's crop being benefited in proportion to the original outlay, and returning as surely its share of the profit. While not affecting to despise the efficacy of artificial manures, or the good which accrues to the crop from their use, we yet invariably find the thoroughly practical man placing his chief dependence upon farmyard dung, considering no amount of labour too great or too expensive which has for its object the collection, carriage, or application of such an invaluable material. Taking this manure as the base, success in root-growing will be most readily achieved by a combination of manures, one or other of the popular phosphatic fertilisers, now so extensively manufactured, taking second place, and to render it quicker in its action a portion of nitrogenous manure mixed with it, say a third or fourth, and for which purpose pure Peruvian guano suits admirably. Speaking experimentally, so highly do we approve of a phosphatic manure, slightly dashed with another, the constituents of which are chiefly ammoniacal, that, however abundant might be the supply of farmyard manure, we would not consider the crop had been done justice to unless a dressing of this mixture had been given in addition. When dung alone is used the rootlets cannot possibly extract nourishment until of considerable strength, and in unfavourable seasons the plants in consequence linger so long before coming to the hoe, that much time is unavoidably lost; and in the case of turnips the fly is extremely apt to cause serious injury in the earlier and most critical period of their existence. When an auxiliary manure, such as we have described, has been used, the plants, if the character of the season is such as to give them the slightest chance, grow rapidly, and forced on by the quickening influence of the ammonia speedily outgrow all danger from the attacks of the fly.

The phosphates now becoming assimilated the plants assume the hue of health and vigour, and spreading a net-work of roots through the dung are comparatively little affected by the most lengthened drought, eventually returning the heaviest crop which the nature and capabilities of the soil permit it to yield.

The earth gives its increase in exact proportion to the treatment which it receives from the husbandman, as surely as the animal system grows and strengthens or becomes stunted and enfeebled in accordance with the supply of food, whether sufficient in quantity and rich in quality or the contrary. To stint the supply of manure, therefore, is to reduce and lower at its very source the amount of available plants, food; weakening not only the crop to which it is immediately applied, but every succeeding crop of the rotation; rendering the young plants of the turnips, &c., less able to stand the vicissitudes of the weather; and the inevitable result to the farmer is a heavy pecuniary loss. The actual expense of preparing an acre of land for green crops in first-class style is not so very much greater than what it costs to perform the same operation in a niggardly or negligent manner; the small sum saved bearing no comparison to the superiority and extra value of the crop grown on the land which has been properly attended to. To manure poorly effects no reduction on rent, taxation, or labour; all remain exactly the same; and the whole difference lies in the value of a few loads of dung, or cwts. of guano or superphosphates to each acre. The additional expenditure looks so small when this view of the matter is taken, that it appears at first sight rather surprising there should be so much land put out of hand each season imperfectly nourished. Such a very apparent mistake cannot altogether be the result of either carelessness, apathy, or ignorance on the part of agriculturists, the principal reason we believe being the want of sufficient capital to embark in a business which to command success involves a very large outlay.

It is but reasonable to suppose that there are few men who would grudge a little extra expenditure if they possessed the cash, when they are perfectly well aware that by so doing their receipts from the soil thus treated would be little short of doubled, and on some land even more than doubled.

The preparation for green crop commences in autumn, and should be proceeded with immediately on the removal of the corn, as the dryness and friability of the soil in September and October offers many facilities for successful culture, which are completely lost when the operation is delayed until a later period. Ease in working, and the destruction of weeds by the sun, which is still powerful, are two advantages of considerable importance, and well worthy of a little attention on the part of the cultivator to secure. Land worked during winter, after having become sodden by heavy rains, is not only more laborious for both horses and men in the first instance, but also greatly increases the labour of preparation at seed time. Not only is money lost, but time, at the busiest season of the whole year, and in catching weather the delay occasioned by giving the extra ploughing or grubbing, according to the implement used, may be sufficient to lose the only opportunity afforded for getting the crop in seasonably; and with the land in good condition, it is now almost universally con-

ceded by agriculturists that the grubber is, of all others, the implement most suited to prepare the soil for the reception of green crops. When powerfully worked, it loosens the soil to a considerable depth, without bringing up the poisonous subsoil; by its peculiar action, the whole stratum of earth coming under its influence is thoroughly broken up and disintegrated, and all roots of weeds are loosened, brought to the surface, separated from the adhering soil, submitted to the sun's heat, and finally got rid of. There is now such a wide field to choose from, that no difficulty need be experienced in getting a form of grubber which will work satisfactorily on any kind of land, and if one form of implement has an advantage over another, we think that it more especially rests with the mode in which it clears itself from the accumulated soil, weeds, and stubble. That which clears itself by a backward movement we consider greatly preferable to one which lifts straight up, the former disengaging itself much quicker and more effectually than the latter, and with less exertion on the part of the operator. Whatever form of implement may be selected there is one essential point in connection with the whole of them when they come to be used, viz., the necessity of having the motive power sufficiently strong to keep up a considerable rate of speed. If the horses are not powerful enough to keep up a continuously steady pull much of the advantage that might reasonably be expected from the operation will be lost, as the tines will slip through the ground without breaking it up, and the farmer will be in some danger of condemning the whole system as futile and unsatisfactory before he has had an opportunity of being able to judge of its merits. On land of moderate texture, four strong horses will usually be sufficient, but if, after being a few hours at it, they appear fatigued or distressed, a fifth should be added, and continued as well from feelings of humanity as from motives of economy.

The extra power shows at once, the implement now spinning along, smashing up and displacing the soil thoroughly, and altogether performing the work with so much speed and efficiency as to much more than compensate for the increased expense. When five horses are used, it is more convenient to put three abreast in front with equalizing bars, the draught chain getting down between the pair behind so as to be attached directly to the head of the grubber. A mistake is sometimes made in having the tines of the implement so light in substance as to render it utterly unable to catch such a hold of the soil as to be able to break it up properly, the fault seldom however being with the original maker, but rather through neglect in getting them relaid after having being worn down from work. They ought not to be less than an inch and a quarter square, and worked with the square side to the front instead of the angle, which is frequently done, apparently with the object of lessening the draught, which probably it does, but the work in that case is not so well done. When the grubber is powerfully horsed the two operations of broad-sharing and cultivating may be combined and both objects attained to perfection. To do this it is quite unnecessary to use the broad or duck-footed shares usually affixed when the eradication of weeds is solely desired. We look upon them as useless incumbrances to a highly valuable implement, and quite obsolete in the requirements of modern agriculture.

The ordinary grubbing shares sink at once to the full depth, are not so liable to be clogged, materially lighten the labour on the horses, and, while tearing the soil to pieces, shake out the weeds at the same time most effectually. A cross stroke of the grubber, mounted in this way, will render the land both mellow and clean, the harrow following to level the surface and spread the weeds to the sun's influence, leaving the entire field ready for the plough. One furrow will, of course, be amply suffi-

cient, the land being so well softened previously, but however soft it may be the ploughing should not be omitted, as it is of great service in burying the roots of all weeds that may have had possession of the soil, and by it a small portion of fresh soil can be brought up to be aerated and prepared by the frosts and rains of winter to enter into new combinations and so aid in the growth and healthy development of future crops.

When spring comes round, and a commencement is made to prepare the land for the seed, the good effects of autumn culture become at once apparent. Assuming that the precaution has been taken of working only when the land was dry, it will now be found in exactly the condition in which it was left six months before, dry, friable, soft, and mellow, and above all as thoroughly free from root-weeds as if such things had never had existence on that field.

On most lands light of surface the plough need not now be used at all, a double turn of the grubber being all that is necessary to put the surface in first-rate order for drilling. To the farmer this is a great boon, as it enables him to get over the work quickly, saving both time and labour. This, however, is but the least of the advantages it affords him, as the grubber stirring every particle of soil, but not exposing it to the parching influence of the sun, enables it to retain the winter sap, so necessary for the rapid and even germination of the seed, and the crop gets a start which in some seasons it will keep and plainly show during the entire period of growth. The excessive and unavoidable evaporation which at once takes place on land when turned over by the plough in spring and early summer, ought to be sufficient inducement to all farmers holding light land to forego its use as much as possible, giving the grubber the preference in every instance where the business in hand can be accomplished by it.

The roots most popular with agriculturists are the mangel and turnip as cattle food, and for horses the carrot is largely grown in some districts, forming a very useful article of diet. By its use a considerable saving in corn is effected, and being in season during the most of the time when the working animals of the farm are necessarily very much restricted to dry and binding food, a daily feed of this root aids materially in preserving them in healthy vigour. We restrict ourselves to a few leading points in connection with the uses and cultivation of these crops, considering that when successfully grown they put the farmer in possession of such abundance as to render him quite independent of any other source for his supply of green winter food. With white turnips and kindred varieties ready for use by the first of September, the yellows and swedes following in succession, and carrying the stock on to the middle of March or first week in April, with a store of mangels in proportion to the number of animals kept, house-feeding can be sustained with ease until the beginning of July, leaving but two months of the year unprovided for.

Mangel-wurzel, when the conditions for its growth are favourable, is, from its extraordinary keeping qualities and capability of returning a large amount of produce, a great acquisition to the large stockholder. A benign climate, strong and fertile loam, deep culture, thorough pulverization, and abundant manure of good quality, are all essentials for complete success; and when combined, so grateful is this plant for kind treatment, that sixty tons, and even over it in some exceptionally favourable instances, may be raised from the statute acre. On medium soils from twenty-five to thirty tons constitutes a good crop, and to have the latter weight the treatment must be liberal. With but ordinary care the weight per acre is from twelve to twenty tons to the acre, the roots, however thick they may be in the ground, weighing but little in the aggregate when of small size. Such a light crop of

mangel is not profitable, and the swede may with great propriety be substituted, as this crop on light land will with an equal expenditure of manure give better results than the other. There is now a larger number of varieties of the mangel to choose from than there was formerly, and are classed as "Long," "Intermediate," and "Globe." The "Improved Long Red," or "Elvetham," is a capital variety to grow, as food for milking cows—not imparting such a strong taste to the butter as some of the other sorts. To be grown successfully it requires rather a deep and free soil; yet, with abundant manuring it can be brought to a large weight per acre on soils of but very moderate quality. The "Orange Globe," and the "Oval" of the same colour, are both excellent varieties, growing to great perfection on the shallower soils, and are in consequence very popular with agriculturists. For purely feeding purposes they rather excel the "Reds," and succeeding so universally, and moreover being such abundant croppers, are yearly rising in estimation.

While it is quite possible to give turnips an over-dose of manure, and by so doing injure their feeding and keeping qualities to a very serious extent, it is scarcely possible to do the same to mangel wurzel, roots of 28lbs. weight when split open being as sound at the core as specimens of half that size. Its capability of standing a large amount of forcing on rich land, and with rich manure, combined with its well-known immunity from disease, render it doubly valuable to farmers who are fortunate enough to hold land of first-class quality, such men being rendered nearly independent of all other forage crops. If necessary, a sufficient quantity can be grown to serve the whole year, as with care it will keep perfectly sound for fifteen months after being lifted. Thirty tons of well-rotted sappy farm-yard dung, with the addition of 7 cwt. superphosphate, or its equivalent in money-value of any other suitable fertilizer, will in general prove an excellent dressing for a statute acre. The plant being able to assimilate such a large amount of food, ought to be a strong inducement to manure heavily, a few extra cwt. of portable manure paying their own cost over and over again, by the increased weight of roots. The seed may be sown any time, from the 15th of April to the same time in May, the latter period proving quite as good as the former, when the newly-planted seed is favoured with seasonable and refreshing showers. The true seed of the plant being contained within a capsule of rather rough exterior, creates a difficulty in delivering it regularly when attempted to be sown by the ordinary turnip machines, however ingeniously they may be arranged or altered for the purpose. The cup of the corn-drill lifting it up, and emptying into the hopper with unvarying regularity, and without risk of stoppage from the seeds clogging together, is a superior plan to any of those that force it through a hole in the side of the seed-box, with the aid of a revolving spindle or brush. Those who possess a corn-drill can manage easily, whether grown in drills or on the flat, and save themselves both trouble and annoyance, the time required for the actual sowing of the seed being scarcely worth mentioning. When a few acres only are grown, they may be dibbled or sown in a continuous line, in a rut formed by the counter of the turnip sower, a little earth being drawn over them before rolling. Either plan does very well for small occupancies, and is much better than trying to manage with the turnip-sower, which leads only to disappointment. From four to six pounds of seed is ample to secure a good braird, with sufficient plant; but as there is sometimes a difficulty in doing this, many farmers sow from eight to ten pounds to the acre when using the machine. The mangel is very susceptible of frost, and in consequence should be lifted early, the occurrence of sharp frosts early in November

acting as a warning to store, if possible, about the first week of that month. Frosted mangels are not only unwholesome, but, as our readers have lately had convincing proof, absolutely poisonous, to sheep and cattle. A strong effort should be made to store in time, and to cover up in such a way as to render them impervious to the severest frosts.

Although mangel-wurzel enables cows to give a large supply of milk, it is of a poorer quality than when they are turnip-fed, and not nearly so productive of cream. The butter made from it has also a slightly acid taste, not so powerful as that of turnips perhaps, but much more difficult wholly to remove, or even to obviate to a passable degree. The thinness of the milk, when wholly mangel-fed, and this unpleasant taste, make it imperative to feed with bran, grains, crushed corn, or a portion of cake during the whole time this root is being used with milch cows. Farm-horses eat it with great apparent relish, and thrive well on it; and by its use a moderate saving in oats can be effected. When grated and mixed with chopped hay, a very agreeable and appetising mess is formed, both filling and nourishing, and highly conducive to the health of the animals. If grating is objected to on the score of extra trouble, the whole roots, thrown into the feeding-box with the cut hay, do almost equally well, the saliva of the horse and abundant sap of the root itself moistening the chaff abundantly.

The Carrot, on soils favourable to the growth of this root, becomes the crop, of all others, capable of returning the largest amount of cash to the grower. This can be accomplished by liberal treatment, and to some extent adopting the garden culture of the plant—viz., by lessening the distance between the rows, and using hand instead of horse labour for stirring the intervening spaces and keeping down weeds. In this way a very large crop can be obtained; and, carrots always bearing a much higher value than mangels or turnips, the money that may be realised from an acre is something enormous.

With the usual field culture, the drills being 28 inches apart, 12 tons of white Belgian carrots may be regarded as a very fair crop, and 15 tons as a really good one. Supposing them to be sold at 40s. a ton, from £24 to £30 will thus be realised from an acre, either sum being considerable, and certainly quite sufficient to clear all the expenses of cultivation and leave a handsome profit besides. The carrot delights in a deep sandy loam; but on most soils of average character, provided they are fresh and moderately free from stones, it may be grown very successfully. It is pretty generally considered that the manure for carrots should be placed on the land and ploughed in late in autumn or beginning of winter to ensure its decay, and thereby prevent it from interrupting the growth of the roots or making them fork, which is very injurious, and lightens the crop to a serious extent. Although good in theory, this method is apt to be troublesome in practice, and its advantages can be fully met by turning the dung which is to be applied to them a couple of times so as to have it well rotted before being put in the drills, and all danger from injury may be thus completely obviated. The ground should be well worked and rendered as friable as possible for this crop, as the young plants are rather delicate in the earlier stages of their growth. A little extra attention in this way will be well repaid by the superiority of the roots when they come to be lifted. From four to five pounds of seed is ample for an acre; there is not the slightest advantage to be gained in giving more, as it only adds to the labour of thinning, and, even with the quantity named, there will be a superabundance of plants if the necessary conditions for ensuring a successful hit have been attended to. Mixing with damp sand for a week or ten days previous to sowing hastens germination, and enables the distribution of the

seeds to be effected with regularity and conveniently. There is no necessity for using a machine when sowing carrot seed, as an active man will sow it nearly as fast as he can walk, after a very little practice, and so evenly that not a single blank will be found in the rows when it appears on the surface. As soon as it can be done with safety, the hoe should be brought into requisition, as much to break whatever crust may have formed as to check the growth of annual weeds; for both reasons this operation should not be neglected. The thinning of carrots requires to be gone about with some judgment, as what might otherwise have been a capital crop may easily, by injudicious and untimely thinning, turn out an almost total failure. It should not be attempted until the plants have attained considerable strength; and, however urgently they may appear to require thinning, it should never be done in dry weather. The pulling up of the plants opens the soil for the admission of air and heat to the yet weak and tender rootlets, and this, combined with the loosening of the soil, gives them a check at the most critical period of their growth, which the most favourable weather afterwards is seldom able to overcome. Again, when the carrot is thinned early, it is extremely apt to be cut by the wireworm—an enemy which it altogether escapes when the season is a little advanced. We prefer delaying this important operation even as late as the first week in August, if July happens to be a very dry month and affords no chance of a few days of moist or wet weather, the result invariably being a good crop, the plant having still three months to mature and perfect its growth. Unless on land highly favourable to the growth of this crop, the plants need not be set farther apart than from four to six inches, the best roots being frequently those that are close to, or, in fact, crushing each other. When grown solely for home consumption the usual application of the carrot is as food for the farm-horse, a daily feed saving corn and gives a fine gloss to the skin, besides keeping the animals in good condition. From 14 to 21 lbs. in a single feed is a liberal allowance, anything over the latter quantity being apt to affect the kidneys and induce excessive staling. They may be given grated or cut into strips, but there is no danger in giving them whole, and it saves trouble.

In giving carrots to milch cows, the only recommendation they have is the absence of all unpleasant taste in the butter, as the milk is neither so abundant in quantity nor so rich in quality as that obtained from turnip-feeding. Some years ago we instituted a series of experiments with different roots, the whole extending over a period of about four months, and the conclusion we came to after such a lengthened trial was exactly that which we have here recorded. In storing the carrot, from four to five feet is wide enough for the pits, tapering to a point at the height of about four, the whole neatly thatched and bound tightly down, no other covering being required, frost doing it, apparently, no material injury. When stored dry, and thatched so as to be impervious to rain, the roots will keep good for six months.

The Turnip.—This plant grows freely in most soils. Even heavy clays can be made to produce good crops, when improved by drainage and subsoiling; and on this account it is regarded by all farmers as their principal mainstay for the supply of winter food. It is brought to greatest perfection on light friable soils, and delights in a warm and rather moist climate. These favourable conditions being available, it remains with the farmer himself to ensure complete success by adding an enlightened system of cultivation and liberal treatment. In the spring preparation of the soil for this crop it is highly essential that it should be made exceedingly fine before the seed is sown, as it is thus brought into close connection with the seed, moisture is retained, and germination hastened.

The gritty fineness attained by mechanical means is altogether different from the soft, velvety tilth which is the result of autumn culture and timely exposure to atmospheric influence; and every effort should be made to have the land in this condition at the period of sowing. Long strawy dung is not suitable for placing in the drills, as it keeps the soil too loose and open, admits air and light, and in every way exercises an injurious influence on the plants in the earlier stages of their growth. In general, one turning will be sufficient to secure the necessary amount of decomposition in the farmyard manure, and when applied to the land in a state of fermentation, the heat evolved during the further progress of putrefaction must to some extent raise the temperature of the soil, and thereby hasten germination. Unlike the mangel, the turnip will not bear an unlimited amount of forcing, the bulbs decaying in immense quantities when forced beyond a certain point by too large a supply of manure, or when grown on very rich land. On ordinary land, however, they are seldom overdone, more frequently suffering from insufficient nourishment than from too great a quantity. A one-horse load of dung, weighing say 12 cwt., divided into three heaps, each heap 16½ ft. apart, the whole spread over seven drills, amounts to as nearly as possible 53 loads to the statute acre, a quantity of manure when of good quality able, with the assistance of a little portable manure, to grow a splendid crop of turnips. Bone superphosphate is a capital auxiliary to the dung, and will always pay for itself by the rapidity with which it pushes on the young plants, hastening their development into the rough leaf, and greatly lessening the danger from fly. For the latter purpose nothing can be better than Peruvian guano, but the very high price which must now be paid for it amounts almost to prohibition, and actually compels farmers to look out for cheaper substitutes, however favourably they may view the article as a high class fertilizer. Superphosphates have the very important advantage over guano that they are, as sent out by the best houses, invariably worth considerably more in net cash than is charged by the manufacturer, a fact which consumers are by no means disposed to overlook. With the amount of dung we have indicated, 5 cwt. of superphosphate, costing at present quotations 32s. 6d., forms a very liberal dressing for an acre. No preparation is required further than to pass through a fine riddle, break the lumps and apply to the land. Mixing with decayed vegetable mould, as used to be done with excellent effect when guano was largely used, is not now necessary, the auxiliary manures now in vogue being bulkier and easier distributed. When spread over the dung it will be quite near enough the surface, the counter of the machine sinking so deep as to all but lay the seed on the top of it. Some care is necessary in reversing the drills, not to lay on too much earth, as in that case the plants must struggle for weeks before the roots can reach the food which has been placed underneath, and on the other hand it is highly necessary that a thin covering of soil should be over the manure to retain the moisture, and to prevent the dung from being torn up by the operation of sowing, always a most unsightly thing, and to some extent a loss of material. Various opinions are held as to the quantity of seed most desirable to sow to an acre, many advocating thick sowing on the ground of securing immunity from the attacks of insects, considering that when a thick plant is obtained as many may possibly escape as will stock the ground, however numerous may be their enemies. This object, however, is not always attained, and when it happens that the plants get on without a check they weaken each other, the roots becoming intertwined, and the trouble of thinning is greatly increased unless it is done very early, a probability which cannot always be

calculated on. We consider 2½ lbs. to the statute acre ample seeding, and a machine that will sow a thin uninterrupted line is a very valuable one to the farmer. The one which was awarded a silver medal last year at the Manchester show seems to overcome this difficulty better than any that has yet come under our notice. The seed conveyed to the down pipe by the revolution of a grooved cylinder pours down in an uninterrupted stream without the slightest risk or chance of failure, and the amount per acre can be regulated with the greatest nicety. The minimum quantity of seed being used, the thinning process is wonderfully accelerated, and the plants from having acquired a hardness of habit and suffering no injury from the earth being disturbed about them push on without the slightest check.

The seed-time of the turnip varies very much in different climates and soils, the first week of May being perfectly safe on heavy land wherever situated, and the 15th of June not too late on light land in southern dis-

tricts enjoying a genial climate. If too early sown far south they are extremely apt to mildew early in the season, become affected with dry rot, and keep over the winter badly. The very opposite is the case as we go north, early sowing being necessary to ensure success, both as to obtaining a large crop and having the roots sound and of good keeping quality.

The after-culture consists in keeping the surface well stirred by both hand and horse-hoes until it can no longer be done without injury to the roots and foliage. By strict attention to this material point all the advantages of a bare fallow are secured, and a valuable crop besides. We have set no stress on the eradication of weeds, considering that if the land has been properly and seasonably prepared, and the drill culture begun sufficiently early, they will never succeed in getting a firm hold; so that the mere cleaning of the soil becomes a matter so easy and simple as to be altogether unworthy of serious consideration.

STERILITY IN SOILS.

At the last monthly meeting of the Hexham Farmers' Club, Mr. H. R. GODDARD said: Of course, the terms fertility and infertility are only relative; at different times and in different places their signification may alter much, and therefore it may be necessary just to state the meaning we wish to place upon them. Simply, and without attempting a laboured definition, a soil may be said to be unfruitful when its produce is below an average, even when ordinary care has been bestowed upon it in preparing it for and in getting in the seed. The causes of infertility may be divided into two classes: those that are natural and those that result from the course of management, or rather mismanagement, pursued. Among the natural causes of infertility we shall find some that at first sight we should say were beyond our power to remedy—situation as influencing the climate, for instance; but it is surprising how much climatic influences may be modified. We often hear complaints of the lateness of a district retarding the ripening of the corn, until autumn weather renders the harvest precarious and spoils the quality of the grain. Highlying land may be protected and materially sheltered by plantations judiciously placed, but the effect that high farming alone has is wonderful. I was over an estate some time since, and had frequent opportunity of observing two farms—one lay in a hollow slightly falling to the south, and sheltered on all sides; the other consisted of poorer land, over 100 feet higher, and with a much worse aspect. Any one would have classed the first as an early and the other as a late farm; the latter was taken in hand by the proprietor, well farmed, and the corn top-dressed; the other was badly farmed, and the consequence was they changed places, and the corn was safely stacked on the exposed land; while on the other it was still standing in the field. Again, the temperature of a district will be affected by the rainfall and by the facilities existing for passing the water off the land; undrained land, where the water is retained by beds or bands of clay, and rendered stagnant, will be found colder than the same will be when properly drained. In both these particulars large woods or forests have an injurious effect; they both increase the rainfall of the district and prevent the water from evaporating from the surface, or being carried off by the wind. Cases have been recorded where springs, never known to have failed, have become dry when neighbouring plantations have been removed, and have re-

mained so until a fresh growth has covered the land. The removal of large forests is calculated to make a country both warmer and drier, and for this reason in naturally humid climates much wood is not a thing to be desired. Other natural causes of infertility may be found in the soil itself, and before passing to these it may be as well just to glance at its composition and functions. We know that the soil is the source from which plants derive all their inorganic or mineral as well as a portion of their organic constituents, and therefore what we find in the plant we may rest assured of finding in the soil. The ashes of all plants seem to contain variable quantities of the following substances: Potash, soda, lime, magnesia, oxide of iron, silica, phosphoric acid, sulphuric acid, and chlorine, all being found in compounds more or less complex, none of them being uncombined. Now, by careful experiment it has been found that plants cannot thrive if any one of these substances be wanting in the soil, and consequently that a soil cannot bear a productive crop, unless all the constituents wanted by the plant are present in sufficient quantity and in such a form that the plant can absorb them. Potash, for instance, might exist in the soil in the form of felspar or mica, but not being present in a soluble form, the plant would not derive any benefit. Thus we see that it is not merely necessary that all the constituents of the plant should exist in the soil, but also that they should exist in an available form; and it is for this reason that analysis cannot give us always a correct idea of the comparative fertility or infertility of a soil; for, though it will reveal the absence of any substance, it cannot always show whether they are present in such a form that the plant can make use of them. We see, then, two causes which might render an otherwise fertile soil unfruitful—viz., the absence, or the comparative absence of some necessary constituent, or its presence in an unavailable form. Again, infertility may be due, not to a deficiency of anything, but to the presence of something in the soil which has an injurious influence upon vegetation. If organic matter be present in an active state of decomposition, it prevents the healthy growth of plants, and vegetable acids are produced, which often have a most injurious effect; these are often found inland, where an excess of water keeps the air from permeating it. Decaying matter absorbs oxygen, and for this cause a large quantity of it is not a desirable thing. Iron, too, present in its lowest form of combination with oxygen has a very deleterious effect, and it is often found in peaty soils, or in a subsoil of blue clay. Things of this sort may often be noticed in soils which have been newly broken up. I saw a crop of oats last year upon a

marsh adjoining the Thames, the largest I ever saw; plenty of the straw was nearly the size of my little finger, whereas the year before, the field being fresh ploughed out, the oats had completely failed. This might be due to the presence of some deleterious substance, which disappeared when the soil was laid open to the action of the air. In cases of this sort lime seems to be of great benefit; it neutralises any organic acids which may exist in the soil, and it assists the decomposition of vegetable matter, and with efficient tillage generally succeeds in removing these injurious substances. But one thing which may be said more than any other to affect the fertility of a soil is the presence of stagnant water, no matter whether it comes from above or rises from below, and this from many reasons. The temperature of the soil is cooled, not only by the constant evaporation from its surface, and the growth of the plant retarded, but all the pores of the soil being filled, the atmosphere has not the power to penetrate to act upon the substances there, and prepare them for plant food. It not only acts directly as a poison on the plant, but, by keeping out the air, tends to promote the increase of protoxide of iron and organic acids. The herbage found upon wet grass land is sufficiently characteristic. On tillage lands the furrows, often bare, or at best covered with spindly corn, show the injury produced; but who can estimate the harm done by working such land in a wet state, as is often almost necessary, or the amount of manure wasted by its being washed off the land? Land naturally fertile may be rendered unproductive by over-cropping; all that is readily available for the use of the plant may thus be removed, but the soil itself aids and assists those who give it an opportunity to recover. The soil is not a dead, inert mass, as we are apt to think; it is highly complex in its structure, and its insoluble parts are perpetually being acted upon by atmospheric and other causes, which prepare them for the plant. Tillage, besides, being necessary in suiting the mechanical condition of the soil for the reception of the crop we destine for it, is thus instrumental in preparing its nourishment, by enabling the air to gain access to all its pores, and to effect those chemical changes which are necessary. Too much importance cannot be placed upon all tillage operations being efficiently carried out. We sometimes find land worn out by over-cropping, possessing a good depth of soil which has never been turned over. Deep ploughing brings this to the surface, it becomes mixed with the impoverished soil, and materially assists in its improvement. Lime, too, may advantageously be applied to land in this state; it seems to act upon the constituents of the soil, and helps to render them available for the use of the plant. Thus we may say that it assists the soil to elaborate from itself what otherwise we should have to bestow. I have heard of land being overlimed, and can easily imagine where it has been continuously applied and then discontinued that the soil would feel the lack of the stimulus it gave, unless supported by an increased supply of manure. But this should be no argument against the application of lime; for by increasing the crops it gives the material for the manufacture of that manure which is necessary to sustain the land at its increased standard of fertility. Rain and dew have a great influence, and a considerable manurial value. In their fall they bring with them from the air ammonia and nitric acid, which are absorbed by the soil of a clayey, loamy, or peaty character. The quantity, though not large in itself, yet becomes important when we consider the amount of rain and dew constantly falling; and the effect upon the crop of any nitrogenous manure we all know. They bring with them, too, carbonic acid absorbed from the air, and many things insoluble in pure water are thus to a certain extent made soluble. Water charged with carbonic acid in contact with bone earth or insoluble phosphate of lime can even take a portion of this into solution. Drainage is, I think, the first improvement on poor and wet lands, and not merely for the reasons stated above, but because so much manure is wasted or washed away when applied to land undrained. Draining is necessarily an expensive process, and it is of the utmost importance to do it thoroughly, so as to avoid any risk of having to do it over again. I have seen a great deal of drainage rendered inefficient by attempting to keep in the old furrows, which are seldom at regular distances, often varying from 8 or 10 to 14 yards. Outfalls are often left in such an unprotected state that they become stopped, and a great portion of the labour and expense rendered useless. Every farmer should, for his own interest, see that they are gone through at least once a year. Rabbits frequently enter

them when not grated. Last summer on one farm I had three main drains taken up stopped in this way. There are great varieties of soils; we speak of clayey, sandy, peaty soils, and there are endless modifications of these. Either of them pure would be absolutely infertile, not merely from its chemical, but from its mechanical condition. Nothing could thrive in an absolutely pure clay, even if it possessed all that the plant required; we, therefore, endeavour to modify soils which contain an overwhelming amount of either clay, sand, or peat by the admixture of what will alter its texture and improve its composition. There are soils so suited as to have the means for improving them in close proximity. The poor sandy land of Norfolk has been wonderfully improved through the application of the marl, which lay almost close to the surface, and this has been used to an enormous extent through Kent, Berkshire, Lincolnshire, and Cheshire; in fact, wherever the marl was to be found, and the soil seemed to repay its application. Peat land in Lincolnshire has been thus improved, trenches being dug, sometimes to considerable depth, and the subsoil laid upon the surface. Perhaps the most wonderful instance of the improvement of a barren soil took place in the north of Scotland, on the estate of, I think, the Marquis of Tweeddale. The soil was a useless peat. The proprietor having discovered a good soil underneath, made canals thoroughly intersecting the land; into these the peat was thrown and floated away, and the productive soil was rendered available for cultivation. No matter how fertile a soil may be, it cannot be continually cropped without adequate manuring, and it is of great importance that all land should be provided with sufficient and suitable accommodation for the manufacture of manure. The position of the land with regard to obtaining manures from other sources has a great effect upon the degree of fertility to which it will be raised. Proximity to a large town, or direct and speedy communication with one, affords great opportunity for improvement. Perhaps there never was a time when greater facilities were available for making improvements general. The theory and practice of draining is better understood, we have more efficient implements of tillage, while steam is lending her mighty power to enable us to plough and to subsoil in a way which could not before be done. Supplies of manure are now being brought from the other side of the world to take the place of what is not returned to the soil. Never was there a greater amount of attention bestowed upon this subject, not merely in obtaining from abroad, but in manufacturing at home. We hear of refuse from our manufactories of all sorts being brought to the aid of agriculture, while even the primeval ocean seems to be rendering up its deposits. The potash which is largely obtained from the salt mines of Germany must have been deposited there from the sea, to which it had been carried down in the constant washings from the land. Thus we see that we derive benefit from what was robbed from the ancient lands, and we know not what changes may yet take place to render available for future generations the vast quantity of alluvium and sewage constantly being carried to the sea. Geologists hold that the same causes which have resulted in the formation of the land we now inhabit are still at work. We have streams and rivers carrying to the ocean, to be deposited in its bed, the elements of future soils which only need the action of those volcanic agencies which are so actively at work in some parts of our globe, and to a less extent even here, to raise them above the sea, and thus render them available for cultivation. Though this may be the case, and though the sewage now descending into the sea may not be ultimately lost, if one takes a broad view of the thing, still we personally should be benefited if the difficulties could be overcome of collecting, concentrating, and rendering it economically available.

The CHAIRMAN said Mr. Goddard's paper exhibited a considerable amount of knowledge of the subject, and much care in its preparation. He told an agriculturist, the other day, that Mr. Goddard was to read a paper on wet lands. He believed almost any land could be made fertile by a sufficient amount of manuring, but then the question always came before them, "Will it pay?" It was the consideration of that question that was the most important—in what way could they fertilise these very poor soils without throwing their money away? The cause of sterility should be carefully noted down, so that, bearing these in mind, they could go the right way about restoring the fertility of the soil. Steam cultivation, which was beginning to be appreciated in this

neighbourhood, was of great advantage. The result, as it seemed to him, was to bring to the surface the poor subsoil by ploughing deeper than usual, and thus lessen the produce of the first crop. But the autumnal digging by steam cultivation broke the soil thoroughly up, and still left the surface-soil on the top to be exposed to the winter's frosts, winds, and rains; and in spring, instead of coming to work a hard and disagreeable soil, they would find it quite mellow, and would scarcely think it was the same field as before. The atmosphere was made to do the work for them during the winter, instead of waiting till spring, and having to work the land over and over again, because, being exposed to the air, the atmosphere did the work for them, which they would otherwise have to do at great expense. In that way they got the full value of the ammoniacal qualities to be derived from the atmosphere, and from the rain which brought it from the atmosphere. As to liming, Mr. Goddard did not think they could overlime land; but he had seen land thoroughly exhausted by a bad farmer by liming. That farmer merely used the lime as a sort of pickpocket for robbing the land of the little that was left in it. In good farming, where a proper use was made of the produce, and justice was done to the farm, a judicious use of lime would naturally increase the value of the land.

Mr. EDWARD ROWELL said the question appeared to him to be, What was the condition of the soils they had to operate upon in this district or county? In many instances they were in a very exhausted state; but whether the fault was in the system of cultivation adopted by the agriculturists of Northumberland, or from the imperfect application of manure, it was not for him to say. The fact, however, was patent to them all, as they passed through the country, that many soils were in such an exhausted condition that the question arose whether, considering the high wages they had to pay, and the taxes that were laid upon them, it was really worth cultivation or not. He held that land, though liberally supplied with dung, would become exhausted. On Tyneside, thirty years ago, they could get a good crop of turnips without any application of artificial manures; but they could not now secure the crops of turnips which once ornamented and beautified the fields on Tyneside. Yet there must be some cause for this. Some of the most important constituents must have become exhausted. The question was, What was the best plan to be adopted to render that soil as fertile as it was formerly? There was no question but that the expense in the cultivation of land was much greater now than it was thirty years ago on Tyneside. In referring to this matter, he might state that the ever-esteemed founder of their club, the late Mr. John Grey, introduced in this neighbourhood, though among an unwilling and prejudiced tenantry, the five-course system of husbandry. In his humble opinion, it was a well-matured thought, worthy of his far-seeing mind; and by adopting this system, and allowing the land to lie one year in grass, it gave it an opportunity of resuscitating itself as it were—of regaining some of its exhausted properties. The soil, in his opinion, had been exhausted of some of its important constituents, and the five-course system should be improved upon, the land not only being allowed to lie in grass a single year, but for four or five years. Artificial manures simply act as stimulants: in themselves they did not contain that amount of organic matter that would add materially to the fertility of the soil, but they stimulated the soil, and pushed it so as to make it grow that which it was not naturally capable of growing. Artificial manures were exhaustive in their effect; and there was no principle which they could adopt which would invigorate the land and restore it to its original condition so thoroughly as to allow it to rest, and to depasture it with sheep and cattle.

Mr. JOSEPH LEE, as to over-liming of land, had seen land in his own neighbourhood so impoverished by it that it could not be restored to its original fertility. But on soils, not accustomed to lime, he believed nothing paid so well as lime. Land limed from generation to generation, however, got exhausted of vegetable matter and the other things so necessary for the growth of good crops; but if used judiciously, lime was of great advantage. From his own experience of thirty years upon his farm, he might say that a portion of it, which lay at a distance from the steading, had never had a particle of manure upon it, and yet it was in much better condition than the other. The land is always three years in grass; and for the sake of keeping his farm in condition, he generally let it

lie two years in grass, and some parts of it five, six, or seven years in grass. He has had experience, as a farmer, of very unfertile soil. If they applied manure or dissolved bones to the amount of £4 per acre, they would produce turnips at a cheaper rate per ton than they could by only expending £3 per acre on manures.

Mr. TROTTER, the secretary, said that Messrs. Lawes and Gilbert, of Roddamstead, grew wheat and barley, each upon the same land, for a period of between twenty and thirty years, by simply using artificial manures, and the crops were increasing, instead of going back. It was not absolutely necessary to let the soil lie in fallow, in order that it might refresh itself. He thought the true theory of farming was to begin by taking the water and the large stones, if there were any, out of the land; for, so long as there were large stones in it, they would never get the land thoroughly ploughed; and until they got deep tillage, and the bottom of the soil manured, as well as the top, they would never have good crops. With respect to allowing land to lie at rest, he believed they got better crops on the four-course than they did on the five-course system; invariably he got better crops of oats after the land only lay one year than when it lay two years. A very good theory went to prove this: When clover grass was well up in height, the roots went well down into the soil, and there were few better manures of the soil than roots of clover. When the land was allowed to lie two years in pasture, whickens grew upon the land, and they got a double crop; they ploughed it for oats, but the whickens got among the oats, and robbed them of part of their nourishment, and lessened the value of the crop.

Mr. GODDARD said there was some little misapprehension respecting what he stated about liming land. Land could be over-limed, but what he meant to say was, that after the land had been limed and increased crops of oats and straw obtained, a larger amount of manure should be applied to the land, so that it would not have cause to suffer much. Providing manure was not returned, it would afford the best opportunity of deteriorating and depreciating the value of the land.

Mr. DRYDEN said that if poor land had been limed and drained, and its surface not broken up, it would have been worth double the value it was now. There was no difficulty in reclaiming land on the general principles laid down by Mr. Goddard; but would it pay? Many improvements might be carried out if the tenants had long leases or compensation for such improvements. On not only poor soil under cultivation, but grass land in the higher districts, hundreds of acres might be rendered of greater value in many ways were it not for obstacles thrown in the way, for purposes he need not refer to on this occasion, but of which they were well aware. These lands could be improved at much less cost, and made better land than the poor, exhausted soils to which reference had been made; and if the owners of this land felt the proper philanthropic spirit, they would see to the improvement of it for the good of the community at large.

The CHAIRMAN stated that he was not in favour of allowing land to rest, as he believed it was merely a matter of calculation, "Will it pay or not?" Poor land, once drained, might be forced to grow crops by the proper application of manures.

Mr. CHRISTOPHER GRAY said he had had some little experience in the management of poor lands, and he agreed with Mr. Rowell as to the advisability of allowing it to rest in grass. It would naturally refresh itself, and when ploughed up again they would get better crops of anything with the application of lime and proper management. But he happened to have a different kind of soil as well on his farm, which would not refresh itself by lying in grass. By letting this land lie in grass two years he got, as Mr. Trotter said, a worse crop of oats. Had not the late respected receiver of the Greenwich Hospital Estates allowed him to adopt the four-course system, the best management he could have afforded would not have brought the crops up to the mark. He farmed other portions of his farm on the five, six, and seven-course system; for he found by this means he got better crops on these light soils, and better grass afterwards. The four-course system was the best for poor soils that would not refresh themselves, but the five, six, and seven-course system was better where the land, if allowed to lie in grass, would refresh itself.

A vote of thanks was carried unanimously to Mr. Goddard.

FARMING COVENANTS.

A Paper read by Mr. E. P. SQUAREY, of Salisbury, at the Institution of Surveyors.

The principle which ought to govern farming covenants would seem to be, that the tenant should have the freest and most unrestricted use of the lands and premises, consistent with the maintenance and yielding up of the freehold at the end of his tenancy in an unimpaired and uninjured condition. The interest of landlord and tenant coincide in this abstract formula, but its application is interfered with in practice through various reservations by the landlord, and by the endeavour to define and limit the use of the land in such directions as may consort, not with the conditions of greatest production, but the prevention of deterioration of the soil. It would be an obvious waste of time to describe, however concisely, the various forms of agreement, with their almost illimitable number of covenants, which prevail, and control cultivation in various parts of England and Wales. Those whom I address need no description of present conditions of tenancy; but rather that, however incapably, I may indicate the relaxations and modifications, in whatever direction, which appear likely to conduce to increased production without injuriously affecting the interests of the landlord. I propose, therefore, to deal with the separate questions of rent, covenants as to cropping, repairs, and entries between outgoing and incoming tenants. The payment of rent is obviously all-important. Under all forms of tenancy at rack-rent it is prudent to reserve it quarterly; and in the last year or half-year of the tenancy, to reserve the last quarter's rent in advance. This is a protection against a dishonest tenant, and need not be enforced against a good one. The payment of the tithe rent-charge and the consequent letting of farms to the tenants free of tithes has some advantages, inasmuch as the landlord is protected from the contingency of loss by the failure of the tenant to pay the current tithes on his occupation. Where farms are let tithe-free, care must be taken to deduct the tithe rent-charge in arriving at the assessment of the farms for poor-rate and property-tax, so long as the rental of lands is adopted as a basis of rateable value. The payment of land-tax, fire insurance, quit rents, and other exceptional charges, are matters of agreement; but, as a rule, they are best payable by the landlord. How far the preferential position of the landlord over other creditors for rent due is really beneficial to the interests of either party, is open to grave doubt; less care in the selection of tenants doubtless arises under this system, and a thrifty, hard-working tenant is sometimes impeded in obtaining further capital by this special exception in favour of the landlord. One ill consequence is clear—a failing tenant is allowed by the landlord to remain longer on a farm, to its probable deterioration, than if all parties stood on an equal footing. Covenants as to management vary so completely in almost every district of England and Wales, that my remarks must necessarily be confined to the broad principles which should influence their application. Where leases for terms beyond twelve years are granted to tenants of undoubted character and capital, I venture to think that no covenants as to cropping are necessary until the last four years of the term. It is a matter of experience that excessive continuous cropping, without the assistance of large quantities of artificial manure, or the fattening of cattle and sheep on extraneous food, is unprofitable to the occupier; hence, with a moderately long interest, a tenant may be reasonably trusted to pursue such a course of management as not to unduly impoverish his land for occupation in the last four years of his tenancy. During this period of free action, some limitations, dependent on the character of the soil and its locality, may be insisted on for the consuming proportions (to be governed by circumstances) of the hay, straw, fodder, root, and other green crops, on the demise. Assuming these conditions, the management of the last four years should be simple, yet stringent in the extreme. The cropping should be limited to two-fifths, half, or two-thirds of the arable land to corn, as the case may be, with moderate proportions of pulse to be harvested. The green and root crops should be con-

sumed on the premises, except under special conditions; and an entry and quit, on convenient and equitable terms, should be clearly defined. The land should be given up clean and in good order; and herein lies the key to the position, if the liberal policy I have indicated is carried out: The covenants of the last four years of the term should be stringently enforced; and compensation for breach of these, or the terms of quit, or of proper and thoroughly cleanly management of the land (not according to custom of country, but according to the best rules of husbandry) should be distinctly insisted upon. In some of the best farmed districts of England these conditions are recognized by landlord and tenant, whilst in other localities it is the exception for a farm to be given up in proper condition; and in these latter cases, if the condition and management form the subject of arbitration, the whole matter is too frequently adjusted on terms which are lenient, and highly favourable to the outgoing tenant. At an institution of great importance and consideration, "The Farmers' Club," a paper has recently been read by Mr. Masfen on "Farm Agreements," which, highly valuable and suggestive in itself, has elicited more valuable conclusions in the resulting discussions. I earnestly commended a perusal of this paper and discussion to the members of the Institution of Surveyors. The lecturer refers to, and discusses with much acumen, the farm agreement of Mr. Cadle, for which the Royal Agricultural Society's prize was given in 1868, and the valuable opinions of my friend Mr. Randall, of Chadbury, on the same subject, elicited by a discussion at the Midland Farmers Club. Mr. Randall has the courage to suggest a new principle for the adjustment of entries between outgoing and incoming tenants, which, like all suggestions from him, deserves the highest consideration. His view is, that no land should be given up to an incoming tenant in a condition of uncleanness, which would cost more than £2 10s. per acre to properly clean. If, in the opinions of the valuers, the cost would be less, the outgoing tenant would be entitled to receive the difference from the incomer; if more, the incoming tenant would be credited with such difference. I am hardly prepared to adopt a datum of £2 10s. per acre, or any larger or less sum, dependent on soil and locality, or to recognise that a tenant should be paid a premium for giving up lands in simply good condition, and thus fulfilling his covenants; but I fully concur in enforcing the severest penalties on the outgoing tenant, whose covenants, whether in the direction of clean farming, cropping, or general dilapidations, have been broken. The application of this sterner discipline would greatly conduce to improved farming and increased production over an immense area of England and Wales. It is with some hesitation that I include in this paper an outline of the cropping which is adopted on the various soils of England and Wales, inasmuch as the variety of soils and climate produce important and infinitesimal modifications of each course, which are yet further affected by the proportions of arable, pasture, and meadow land on each farm. On very light soils a five-field course prevails, viz., two-fifths corn, one-fifth roots or green crops, two-fifths clover and ryegrass; and where the old ley is broken up, a portion is sown to rape or turnips before wheat. No pulse crop to be harvested in this course. It is usually within the discretion of the farmer in what order the two-fifths corn crops shall follow. On lands possessing more staple and of greater depth, the four-field course is almost universally adopted—viz., one-half corn, one-quarter roots, and one-quarter clover and pulse; the proportion of pulse which may be permissible fluctuates according to the quality of the land from one-eighth to one-twelfth. In this case, also, the sequence of corn and green crops should be at the option of the tenant. The three-field course, with its modifications converting it in some cases to the six-field shift, applies to the rich, deep, strong soils which, alas! are exceptional over the broad area of England. Its ordinary formula would be two-thirds corn, one-ninth clover, one-ninth roots or fallow,

one-ninth pulse. It will be obvious that these forms of cropping are merely the skeletons of management, which permit endless modifications of catch crops between corn and roots. With the views previously propounded, it is clear I have only introduced the preceding paragraph to be some guide to the farming of the last four years of a reasonably long term. It is now to be considered how far this elasticity in cropping, which I have ventured to suggest, where long leases are to be granted, may be extended to tenancies determinable by 6, 12, or 24 months' notice. In discussing these conditions, I must dismiss, with much regret, the actively operative but apparently sentimental consideration of "good feeling and good understanding" which, however esthetically unreliable and unsound, has, over very many large estates in this country, co-existed with excellent farming and large and expensive improvements. It is obvious that, under a yearly or two-yearly tenancy, it would be a most unwise liberality which would concede perfect freedom of cropping or application of all produce to the tenant. In these cases any relaxation of the ordinary covenants as to cropping, or sale of produce ordinarily consumed on the farm, must be coupled with special stipulations as to return of manures or extraneous food to be consumed by the stock. A system of Tenant Right, however valuable for the protection of the occupier under these contingently short tenancies, leaves the landlord's interest dangerously exposed, if any general concession as to cropping without limitation or stipulations is made; hence, the landlord or agent of an estate where short tenancies exist must exercise a continuous surveillance of the property, if the remotest departure from rule-of-thumb cropping and covenants is to be permitted. On the other hand, I do think that the cultivation and production of farms under these shorter tenancies may be greatly improved by the concession of a Tenant Right for oilcake and artificial manures applied to green crops within a reasonable period of the termination of a tenancy: I do not suggest the details of such Tenant Right; but the experience of Lincolnshire and other counties would be a valuable reliable foundation for the extension of the practice over our country. But, as I conclude this portion of my subject, before me rises the recollection of various localities in England and Wales to which the most sanguine of improvers would scarcely apply the liberally elastic conditions I have suggested. The thin, poor, wet clays, often of considerable elevation, in the damp climates of a line of country extending from Cornwall, through Wales, to Lancashire, Westmoreland, and Cumberland; the weak, hot, burning gravels, and the occasionally incompressible sands, where situated in an inhospitable and unattractive district, command, unfortunately, no class of tenants to whom these liberties may be safely granted. New capital will not be drawn to these places. I say "new capital," because it happens often enough, that, through long years of thrift, tenants are found on these farms who have money; but they progress not by producing, but by saving. The average tenant of these districts lives from hand to mouth, and could not, if he would, supply the conditions which alone justify the relaxation of his ordinary management. It has been suggested to me, that the further growth of wealth may and will beneficially affect these neglected districts, as it has others, heretofore, seemingly as desolate. I venture, if not to ignore, at least to depreciate this influence in these special cases. The competition will be keener for what is desirable, but will very remotely affect the areas which I have described in such gloomy colours. An advance of the cost of manual labour, and a permanently lower range of corn prices, may and ought to modify the character of produce of these farms. In these cases every aid should be given by the landlord and agent to develop such changes; in these directions it may be possible to concede greater freedom of management. The ordinary covenants for the keeping a defined number of sheep or cattle on a farm, should obviously be as elastic as the covenants for cropping, which I have indicated in the foregoing remarks. With equal stringency, the maintenance of a full proportion of live stock must be enforced during the last four years. The management of dairy farms can scarcely be affected by any of the foregoing considerations, except that a reasonable Tenant-Right should be given to the occupier of strictly grass farms for oilcake or other artificial food which he may have consumed during the last two years of his tenancy. Further, the consumption of oilcake or other kindred food during any period of his tenancy should justify the sale

of a certain quantity of hay. Repairs are a large and important feature in farm agreements, and probably lead to more questions, troublesome of solution, between the landlord and tenant, than any other condition of tenure. The ordinary arrangements are—1. Where all repairs are borne by the landlord; 2. Where all are borne by the tenant; 3. Where the landlord provides the materials and the tenant pays the labour; 4. Where the landlord finds the materials and shares with the tenant the cost of labour. It is obvious that these varied conditions proportionably affect the rent which is payable, and theoretically it would seem to be of little importance by whom the necessary reparation is made; practically, however, it is far otherwise. Left to themselves, and without any liability to make good the wear and tear which inevitably happens to farm buildings, the tenant is too frequently careless of the cost of these repairs, and permits waste and injury to his premises, which, had he an interest in their economical maintenance, would never arise. On the other hand, when the entire onus of repair is thrown on the tenant, he is too much disposed to evade, as far as possible, his liability; hence things go undone which, falling in themselves at the outset, by the end of a long occupation assume very serious proportions. Arbitrations or legal proceedings are frequently necessary for their settlement, and it is exceptional if, in such cases, the tenant is not relieved of a portion of the liability which, directly or indirectly, should properly fall upon him. For myself, I am inclined to the belief, that the fourth adjustment of the liability, *i. e.*, the division of the cost of labour by the landlord and tenant, most fairly meets the difficulties of the case. The tenant's proportion of expenditure is limited to an amount which is more than balanced by the comfort and advantage of the maintenance, in proper condition, of his premises; and to avoid the large liability which is certain to result from neglect of prompt repairs, he will certainly be continually pressing on his landlord or agent the necessity for keeping things in good order. Let me suggest, as exceptions to the materials to be provided by the landlord, straw for thatching, and glass and leadwork; further, the tenant should be bound to do the carriage of materials for repairs within reasonable distance. As with land, so with buildings, dilapidations at the termination of a tenancy, should be more strictly enforced than is now the usual custom; but it is clear that the tenant should be only liable for a legitimate and necessary reparation, and not for restoration or reinstatement. The periods and conditions of entry on farms, and the power to hold over certain portions of the premises after the expiration of the term, by the outgoing tenant, and the right of pre-entry to prepare for turnips and wheat, by the incoming tenant, are singularly varied over England and Wales. It would be a waste of your time to describe them in detail; but I rejoice that the energy of some members of this Institution has led to the collection of information upon these points from the body generally, which, when collated and digested, will be as valuable as interesting. It is, however, within the province of this Institution to direct their efforts to a modification of some of the tedious, inconvenient, and expensive conditions by which many entries are now hampered. As an extreme instance of tediousness, I may mention that in some of the west country Lady-day entries, it is fifteen months after the expiration of a tenancy before the incoming tenant has entire possession of the occupation. I need not again enlarge on the costly character of the Surrey, Sussex, and Kent entries, which really uselessly absorb no inconsiderable portion of a tenant's capital. Where it is possible, there can be no doubt of the wise policy of the purchase by the landlord, of a large proportion of the items of these expensive entries, and thus reducing the cost of entry and securing the application of the tenant's capital in more profitable directions. It is obvious that tenants will usually pay at least 5 per cent. in the shape of rent on the capital thus economised; from a variety of causes, it happens that few landlords are disposed to deal broadly with the purchase of these rights. It is, however, for our consideration whether, in granting long leases, it may not be desirable to make some effort to extinguish a portion if not the whole of these outrageous conditions. It is clear that the best entry is that which permits the incoming tenant to set himself down in his occupation at the least possible expenditure of capital without prejudice to the interests of the outgoing tenant. The Wiltshire Michaelmas entries, for instance, appear to involve these conditions; the incoming tenant has

a pre-entry given him for turnips and wheat of defined date and area, which he tills at his own discretion, without charge for rent, rates, or taxes. Even in these cases, however, a question of Tenant Right crops up. Where the land on which a crop of turnips has been consumed is given up to an incoming tenant, as an entry for his wheat crop, custom has, during the last few years, established the payment of half the value of the tillages and artificial manure of such preceding crop to be paid by the incoming-tenant. It is a matter of regret that the value of oilcake, or other artificial food, does not, without special agreement, come into the same category; but I am sanguine that custom, in this direction, is being quietly but certainly established. It is with some hesitation that I introduce game; but the reservation is so usual and important a feature in the ordinary agricultural lease and agreement, that it may not properly be left unnoticed. The political and moral aspect of this question is scarcely within the province of our Institution. Apart from this, I regard the preservation of game and the rights of sporting as a simple matter of agreement between the landlord and tenant. It is, however, to be regretted that the preservation of ground game and rabbits is occasionally carried to such an extent as to be utterly inconsistent with good cultivation, and too frequently productive of misunderstanding and quarrels between landlord and tenant. I may

now shortly summarise the results which I venture to anticipate from the adoption of more liberal covenants. Chief amongst them, I am certain of great general increased production of all farm produce, from the conviction that, with perfect liberty of action, a farmer will only sow his land when it is in the fittest and ripest condition for perfecting a crop; the conditions incident to such fitness involving the growth of large proportions of green crop, and the consequent maintenance of a great stock of sheep or cattle. 2. The probability of more permanent occupations of farms by the same tenants: Once free to manage his lands in the fashion which he thinks most profitable, the tenant will be most unwilling to be reduced to the four corners of his cropping covenants in the last years of his term. He will make every effort to remain on his occupation by the payment of the most extreme rent, consistent with his getting a living, before the strict covenants as to cropping in the last years of his term would come into operation. I believe that the adoption of these suggestions would necessitate great care in the selection of men of capital and experience as tenants; but I am sanguine enough to believe that it would tend, not only to the benefit of the State, but to the increased income of the landlord, and certainly to the comfort and prosperity of the occupier.

ON THE PREVENTION OF CATTLE DISEASES.

At the meeting of the Cirencester Chamber of Agriculture, Professor McBride, of the Royal Agricultural College, introduced the subject of cattle disease. Mr. Edmonds presided.

Professor McBRIDE said agriculturists have, from the earliest times, until a very recent period, looked upon the diseases of the lower animals as a necessary evil, and one over which they had little or no control. In fact, they resembled much the "peculiar people" of the present day, who quietly stand by and allow disease to destroy life without the least attempt to protect themselves or their families from its devastating effects. Happily for the stock-owners of the present day the sun has thrown its last rays on the good old times when men gloried in being ignorant under the plea of being practical. In those days men were content with the education inherited from their fathers, and as a result never ventured to supplement it. The nineteenth century, however, is a progressive, age, and it indicates true progress when any body of men acknowledge a necessity for further information. I am happy to say that this Chamber, although young, is thoroughly imbued with the true spirit of inquiry; this statement can be verified by looking at the immense amount of original work done by your committees under the able management of its office-bearers. The subject I have chosen is of paramount importance to the nation at large; to the consumer as well as the producer. The prosperity or ruin of hundreds of stock-owners depends in a great measure upon a thorough knowledge of this subject. Sooner or later cattle diseases must be recognised as a public question. You are doubtless aware that no country in the world can compete with us in raising the quality of cattle exhibited at our annual shows; and further, I have no hesitation in saying that there is no country so lax as our own in staying the progress of preventable diseases. We throw away millions of money yearly, having little or no return; a loss that would not be tolerated in any other branch of industry but agriculture. Perhaps you may think I have used the wrong words—"thrown away"—because some, while allowing the gold coins to slip through their fingers, grasp a few shillings as the salvage of diseased animals, and allow them to pass into the hands of some unsuspecting individual who, in a short time, sends them elsewhere amongst healthy stock, thus supplying the disease with its hundreds of fresh victims, and insuring its rapid and sure distribution over the length and breadth of our isles. Is this not worse than "thrown away?" This is no imaginary picture. I could give many such facts from my own experience, and in not a few cases the biter has been bitten. What else could he expect when he encouraged such a system of traffic? This is not as it should be. Why is it so? The answer is simple. You have not availed yourselves of a science which is economic in

all its bearings. One would have thought that the enormous amount of cash invested in live stock in this country would, at least, have secured as large a share of science in its treatment as that of the crops, but such is not the case. We rarely hear of agricultural societies experimenting upon diseased animals or tracing the causes of disease or their results. A superficial observer would imagine that the preservation of live stock was foreign to the interests of agriculture by the little interest such societies take in this matter. These are plain truths, and however difficult they may be to digest they are worthy of some attention. Perhaps a few of you present may think that my statements as to the great losses too general, or fanciful, or that the pictures are overdrawn. If such be your opinion you cannot have the slightest idea of the great mortality amongst our domestic animals. I will give you statistics to show that animals do die in large numbers from preventable diseases which you may prove at your leisure, and I have no doubt that you will find matters even worse than I have depicted:

1. At a recent meeting of the Derbyshire Agricultural Society, Dr. Hitchman stated that in Derbyshire $16\frac{1}{2}$ per cent. animals perish annually from pleuro-pneumonia.

2. Professor Ferguson, of Dublin, in 1866, stated that 46 per cent. of dairy stock died, or had to be sold, on account of being affected with pleuro-pneumonia; and in 1867, when supervision was exercised, it was reduced to $17\frac{1}{2}$ per cent.

3. At Glasgow, in one dairy, where cows were kept to the extent of 1,600, the annual loss from pleuro-pneumonia was on an average 25 per cent.

4. Statistics collected by Professor McCall, of Glasgow, show that in that city alone the loss from preventable diseases was £77,999—the loss in the above dairy was excluded.

5. Mr. W. Smith, M. R. C. V. S., in a paper upon "the Cattle Plague in Norfolk," which he read at the recent meeting of the British Association, states that, during the prevalence of the disease in that county, "when the movements of cattle were restricted by licences, and close inspection was maintained, the lung disease was held in abeyance, and the mouth-and-foot disease, except at the outbreak of the pest, quite disappeared, but very soon after the checks to the propagation of the disease were removed our old enemies re-appeared."

In evidence of this he placed before the meeting the following figures, which he had compiled from the books of the Norfolk Farmers' Cattle Insurance Company. The stock insured by that office during its twenty years' career had been valued at more than £2,000,000; the experience of the company Mr. Smith therefore regarded as "valuable and reliable."

The table exhibits a percentage of loss "upon the whole number of neat stock insured." In 1858 the loss from pleuro-pneumonia amounted to 63½ per cent.; in 1859, to 45 per cent.; in 1860, to 47½ per cent.; in 1861, to 47¼ per cent.; in 1862, to 46½ per cent.; in 1863, to 35 per cent.; in 1864, to 35 per cent.; in 1865, to 26 per cent.; in 1866, to 1 per cent.; in 1867, to 8 per cent.; and in 1868, up to August 17, to 30 per cent. As soon as the movements of cattle were restricted, and fairs and markets prohibited, this hitherto incurable and most destructive of diseases almost disappeared. But at the present time, when "the free movements of beasts are again permitted, pleuro-pneumonia is once more asserting its malignant supremacy"—malignant indeed, when we find that in less than eight months of the present year, nearly one-third of the animals insured have perished, while the average loss of 1866 and 1867 was only 4½ per cent.

6. *The Fifth Medical Report of Privy Council.*—The statistics being principally compiled from Insurance books, which must be understated from the fact that great risks were refused, and animals showing the least symptoms of disease were rejected.

The number of cattle which die annually in North Britain is thus discovered to be 47,893, and the money value of them to exceed £500,000, a large number and large sum, and evidently too large to pass unnoticed as it does. Above one-half of the total number lost is by pleuro-pneumonia, a disease which was unknown in this country before 1849. But, compared with England or Ireland, the loss in Scotland is small. For the sake of calculation assuming it to be correct, and taking the rate of mortality from our Scotch tables, which are low rates for Ireland, we find the annual loss to be £1,132,687 7s. 5d. In these two kingdoms, therefore, we have an annual drain upon agricultural capital amounting to £1,642,771, or taking the real value of Irish cattle, close upon two millions each year. If in 1860 the whole of the United Kingdom had (as I believe it at least to have had) the same rate of mortality as Scotland, in that year there died of disease, in Great Britain and Ireland 374,048 horned cattle, having a total money value of £3,805,939 8s., and if the Mid-Lothian experience of the causes of death be applied to this matter, we may infer that more than half the loss was due to the pleuro-pneumonia—in round numbers may be estimated, £3,805,939 a year; £317,161 a month; £79,290 a week; and £11,327 a day. This is under the proper estimate, as taking six years, we find an annual loss of four millions. The number of cattle imported in 1860 was 104,569, and their value may be estimated as £36,552. The deaths from pleuro-pneumonia represented considerably above twice the value of these imports. As one year cannot be considered a sufficiently fair estimate, we may give the calculations for the six years ending 1860. The value of animals lost amounted to a grand total of £25,934,650. Of this number there died from pleuro-pneumonia considerably above one million during the six years, and these represented a value of about twelve millions sterling. The loss by disease was four times the number imported, and by pleuro-pneumonia it exceeded twice that number. In large towns the mortality of cows very greatly exceeds any proportion which I have stated—it has amounted to more than 50 per cent. The reports of 88 Edinburgh dairies ordinarily containing about 1,839 cows, out of which, in one year, 791 diseased cows were sold to butchers, and slaughtered for human food, and 284 were sold as food for pigs. It will be seen that of the total number of cows kept in Edinburgh, 58½ per cent. were sold diseased, of which 43 per cent. were sold to butchers for human food, and 15½ per cent. as food for pigs. The total value of the 1,075 diseased animals when first bought, at the very moderate average of £13 10s. each, is £14,712 10s. There was realised by their sale, calculating the value of the 791 sold to butchers at an average of £5 each, and the 284 sold for pig feeding at 10s. each, the sum of £4,097. The net annual loss for diseased cows in Edinburgh alone may therefore be estimated at £10,415. In Dublin the average losses for 20 years ending the 1st July, 1862 (viz., since the very first appearance of pleuro-pneumonia in the United Kingdom), amount to 51.11 per cent. on the 12,000 cows kept. Further, in London and its suburbs there is an annual loss of at least £80,000. The time at our disposal is so limited that I can only hope to consider one of the great classes of disease. I had, however, intended to describe epizootic and enzootic—the latter being those dependent upon local causes; but as the

first class is of the greatest importance to this Chamber, I am reluctantly compelled to omit epizootic disorders till a future time, when we may have opportunity for its discussion. I shall endeavour in this lecture to describe—1. What is meant by the term epizootic. 2. How introduced, and why retained in our country. 3. Are we safe from further outbreaks of cattle plague? 4. The prevention of such diseases. I shall hope to point out what agriculturists must do before the Legislature can reasonably be expected to assist you; and further suggest what this Chamber should do as a pioneer in this great movement. Epizootics are defined by our greatest authority upon this subject as "that class of diseases which spread from one country to another without regard to climate, soil, breed of animals, or any circumstances except those of favouring or impeding the communication of a special virus, the propagation of a living entity from a diseased animal to a living, healthy one." Such being the definition of this class, it will further our object much if we consider briefly how introduced. It is truly a mortifying spectacle to behold one of the greatest nations in the world, rich in science, thus allowing only four diseases—viz., pleuro-pneumonia (lung disease), epizootic aptha (foot-and-mouth disease), cattle plague, and variola ovina (small-pox in sheep)—to be our every-day terror, and drain our pockets to the extent that they do. What weakness to permit even for one day the introduction of such diseases as are foreign to our soil. Before 1842 our cattle and sheep were not devastated by such diseases, and it was only when Sir Robert Peel thought it necessary to increase the supply of meat for the people that he allowed free trade in cattle. By so doing he unwittingly introduced foreign diseases, which have ever since been a curse to the agricultural interests. These disorders were new to the stockowners of this country. They would not believe they were either infectious or contagious. The causes given were numerous, such as the filthy condition of cow-houses; excessive heat or excessive cold; dry weather, wet weather; and some very wise men, even so recently as the late outbreak of cattle plague, declared it was something in the air. Few would allow that such disorders were due to specific poisons, and not indigenous to our soil, but of foreign growth. Twenty-eight years have wrought wonders—it has educated the agricultural community, but at what a cost! This is one of the benefits of compulsory education. There can be no doubt that your experience has been the most ample and the most expensive mode of learning the true nature of these plagues. The outbreak of 1865 not only enlightened the ignorant, but it confounded the prejudices of those who denied its contagious nature. Our instruction has been costly, and we should be deserving of the severest censure if we neglected to make use of our acquired knowledge for the purpose of protecting our interests. No doubt we have had a few occasional complaints, but they have been drowned by parties interested in the traffic. It has been said by agriculturists that our profession has done little to aid stock-owners in eradicating such diseases from their herds and flocks. Many veterinarians have drawn the attention of those interested to this subject, but none to the extent of Professor Gamgee, or with the same originality of thought. Since 1858, till the cattle plague appeared, he never failed to point out what must ultimately be the result of the traffic in foreign cattle. Strange to say, one of the most influential agricultural bodies in this country would hardly listen to him; they put him down as an enthusiast, a theorist, an idle dreamer. When he told them that if they persisted in introducing foreign stock we should be certain to have a visit from the dire destroyer, cattle plague, he was laughed at. In fact, he was said to be suffering from a peculiar form of madness—his hallucination being that this country would soon suffer from a plague which would destroy nearly all our cattle. Agriculturists said it could not occur—it was sensational—a myth—a mere shadow; and, further, when he informed you how cattle plague could be stayed, I firmly believe if Lynch law had been an English custom, the cattle dealers and others interested would have made an example of one who was, and is still, your best friend. Such has been the recompense that one of the most talented members of our much-abused profession received at your hands; and why? Because he knew more than his contemporaries, and because stock-owners were not sufficiently educated to receive the truths he communicated. I take this opportunity of saying that he is the most original man of his time; and that he has the most comprehensive view of all

that pertains to epizootics. What did he do for Wiltshire? Stopped small-pox. I am not aware of anyone, who has written or lectured upon this subject, advancing anything that he did not advise years ago. They but echo his words without giving him the honour of being the first to suggest such measures. Government adopted his suggestions for cattle plague, after the loss of millions, but neither agriculturists nor the government have either recognised or remunerated his valuable services. Every profession has had its martyrs, and I expect ours is no exception to the rule. However, gentlemen, it is satisfactory to know "that it is never too late to mend." I should hope there are none present who believe in the *non-contagious* nature of these maladies. To those who do, I will not attempt to prove its nature, as the time has passed for its discussion—it is known to every cow boy. I will, however, place a few facts before them. 1. The ports from which we receive our foreign supplies suffer much from such maladies. 2. Such diseases were never known in England until foreign stock were introduced. 3. Such diseases always radiate from centres, such as cattle markets along the lines of cattle traffic. 4. Breeding districts are entirely exempt. 5. The practice of selling animals suffering from such disorders, although detrimental to your best interests, proves clearly that you are afraid of its spreading. 6. While cattle plague was playing havoc with our herds, pleuro-pneumonia (which is contagious) disappeared. And why?—The traffic in animals was stopped. Read the history of epizootics on the continent, how they pass to Britain, and from it to America, Australia, and Norway, and if any further doubts exist in your minds, invest in one animal suffering from pleuro-pneumonia, place it amongst your healthy stock, and the result will be conclusive evidence of its nature. Let me assure you it is impossible in this country to produce this class of disorders by any combination of causes such as heat, cold, food, moisture, filth, bad ventilation, or anything short of the introduction of the specific poison into the system of the living animal. Any of you may as well try and generate cholera amongst the members of this Chamber within an hour. There is little doubt that such causes may increase the virulence of the attack, but nothing more. It is very unpleasant to recall the results of the late outbreak of cattle plague, but the question naturally arises in one's mind—Are we in any danger of its re-appearing amongst our stock? It must not be forgotten that it occurred once, and may occur again under like circumstances. This peril is even increased by the large extension of railways, forming a complete network to the centres of disease on the natural habitats of these plagues. If prices be high in our markets it will further favour its introduction. Therefore we have reason to apprehend danger from the increased facility of transport together with the unscrupulous character of many of those engaged in the traffic of such animals. This critical state of matters loudly calls for some stringent measure by our Government for the protection of the public health and the prosperity of agriculture, as the present system cannot possibly be tolerated without disregard to long established and warmly-cherished principles of our social economy. I trust I have been successful in showing you that the annual loss due to the great mortality amongst stock is greater than many like to acknowledge. I have also endeavoured to show you the primary cause of your losses, and how such losses are increased by your recklessness in purchasing animals; and I hope I have succeeded in calling your attention to the liability at any moment to another outbreak of cattle plague amongst your stock. It is nothing short of folly to wait for further evidence of its destructive nature, and the blame must rest with yourselves and not with us if you are not fully protected from its ravages. You thoroughly apprehend the primary cause of epizootics—it is the free trade in cattle; and we have much reason to congratulate ourselves that it is so, as we can without much difficulty apply a remedy for which our insular position offers every facility. Gentlemen, I have hardly patience with those who advocate free trade in cattle. Their great idea is that this liberty is good for the country. How can it be so when it permits the systematic introduction of diseased animals by jobbers into our markets? We lose by pleuro-pneumonia alone about twice the value of our foreign imports. Sir Robert Peel never intended to give any such licence to traffic in that which is dangerous to the health of the public and ruinous to the owners of stock. We shall now consider the means of preventing disease.

The inspection of foreign stock at British ports.—After some experience of this mode of preventing disease, I am compelled to say that at the best it is of doubtful utility. Every one knows that the results obtained from the examination of animals which have been at sea are very unsatisfactory, as the excitement produced by bad ventilation between decks, over-crowding, and the cruel manner in which they are treated in landing, are sufficient to obscure the signs of disease. No doubt bad cases may be observed, but even this cannot be done in all instances without danger to life or limb. Inspectors cannot possibly recognise disease during its incubative stages. These vary—extending to forty days in pleuro-pneumonia, in cattle plague six days, and in epizootic aphtha ranging from twenty-four hours to five days. Now it is quite possible that a cargo may be passing through this stage and yet be reported healthy by the inspector. They are then permitted to be exposed in our markets to propagate disease. The inspector may limit the number of animals suffering from the acute form, and in this particular may be of some little service. But it must be evident that it can be no protection to our home stock. Quarantine has been recommended for all foreign cattle. I believe that it is impracticable in this country, because it would never be so efficiently conducted as to secure us against the spread of such maladies; in fact, it would resemble our sanatoriums during the cattle plague, and would merely be a centre for the spread of such disorders. The advantages to be gained by this procedure would be so few that it would never compensate for the expense incurred. It would meet with very much opposition from its impracticable character. Imagine an old Dutch cow retained in quarantine for six weeks; it is simply absurd. No doubt this measure would have this advantage, that it would soon put a stop to foreign supplies altogether. What I would suggest for your safety would be, that all foreign cattle and sheep should be slaughtered when they arrive at our ports, and sent as dead meat to our central markets. Sheep, if allowed to be exposed in our markets alive, would be capable of propagating all the epizootics to our home cattle. There should be no half measures. Government should be compelled to restrict this traffic and encourage our home trade. If the British farmer offered animals for sale knowing that they came from a diseased stock, and that they were suffering from the disease in a latent form, he would be punished. Why then should Government allow salesmen to dispose of foreign cattle when they are known to come from infected districts? Indeed, this fact often leads to an increased supply of such animals to our markets. Foreign cattle dealers know we will give good prices even for stock capable of propagating disease in the shortest possible time. This shows the inequality of our English laws, foreigners being allowed to go scot-free for the same offence that you would in all probability be imprisoned for. Why should you suffer from any defect in the laws of free trade in cattle? I can assure you if the same thing was even attempted to be done to any other section of the community the statute would be at once repealed. In fact the more seldom that either sheep or cattle are permitted to leave our ports alive, the less likely are we to have a repetition of the calamity of 1865, which proved so fatal to your interests. It is one of the most characteristic features of epizootics that they tend always to become extinguished in places remote from those wherein they seem to have a spontaneous origin. The influences which affect this extinction are difficult to determine; perhaps one reason is that the contagious matter requires other conditions besides the mere presence of animals before it can establish itself permanently in a country. As these conditions, however, exist nowhere excepting in those countries wherein such diseases spontaneously arise, their absence in our own land may be one cause of those disorders undergoing a gradual extermination. Again, these diseases, from being transmitted through several generations, lose much of their virulence, and animals become much less susceptible to the influence of their contagious principles. It is well known, for example, that neither pleuro-pneumonia nor epizootic aphtha is so deadly now as when it appeared first amongst us, and it is just as certain that each of these diseases would ultimately disappear if it were not for the continued introduction of virus from abroad.

How to Treat Home Stock.—I should advise you to place newly-purchased animals from public markets in isolation houses for at least six weeks. You will never regret doing so, as it will prevent the spread of such diseases as pleuro-pneu-

monia. Should this disorder break out among your stock, what should be done? Kill at once all those suffering from the malady, separate the rest of your stock into small lots, and be certain that each herd is thoroughly isolated from the other. Then put them all under tonic treatment, sulphate of iron being the best. By this procedure you will invigorate them to such an extent that they will probably withstand the action of the specific poison. Be careful that those attending diseased animals do not come in contact with your healthy stock. Such measures will tend to confine disease to the districts in which it has first broken out, and at the same time stay its progress. It is at all times wise to use antiseptics. This treatment, in its entirety, would not apply to epizootic aphtha, as its period of incubation is so short that it would be difficult to prevent its spread. It is not deadly, but it leads to great waste of meat and milk. Fat stock may sink £3 per head in value, while with dairy stock it is simy rumous. This disease has during the past thirty years robbed our people of not less than between two and three million tons of animal food. A practical farmer has stated the money lost at £250,000,000. Let us now consider what should be done before you can reasonably expect Government to assist you. Show your annual losses. Be in a position to place in the hands of your members of Parliament statistics. If this be done you will command the attention of Government, and at the same time secure that great element public sympathy; and with both these the result is evident. Measures would soon be adopted to prevent further loss. It will appear to the most sceptical that statistics emanating from agricultural chambers would be a powerful lever, as the evidence you could adduce would be so overwhelming as to ensure your carrying the day in any political struggle for your long lost rights. The shackles which the Peel Government forged for you in 1842 would drop off, and thus relieve you of your great danger in purchasing stock. This would not be all; it would ensure a supply of hundreds of tons of food for the public, together with an increased account at your bankers. How can statistics as to the mortality of stock be best secured? Simply by the appointment of registrars in different parts of the country, whose duty it would be to ascertain the diseases in particular districts. These reports should contain: 1, Name of disorder; 2, Its causes; 3, Its nature, whether contagious, infectious, or otherwise; 4, Its duration; 5, The number of deaths. This would tend to instruct us concerning the special influences of certain districts in producing disease, and at the same time would give us precise knowledge of the loss incurred by the whole country. Let me here advert to the absurd idea that many farmers have of opposing any measure that requires statistics from them. They think that Government wants to know too much of their private affairs, and tax them accordingly. Such was not the case in reference to the statistics obtained during the cattle plague. Indeed, if Government had not received such information no measures of prevention could have been adopted. It is essential in the present instance that the Government should be in possession of all the facts of your losses, before you can hope to have the law of free trade in cattle corrected. What should this Chamber do as a pioneer in this great movement? Communicate with other Chambers of Farmers' Clubs in the county, and suggest to each member that he should be his own registrar for six months. When the statistics are collected and arranged you will be very much surprised to find that even in Gloucestershire the loss is so heavy. Since writing the above, I see from our journals that cattle plague continues to destroy the cattle in large numbers in Eastern Europe. It is of such a virulent type that it has spread to several fresh districts in Poland and Hungary. Pleuro-pneumonia increases in our own county. 33 counties are affected, showing 132 distinct centres. Foot-and-mouth disease, 55 counties with 863 centres for its rapid spread. Such then is a brief sketch of this class of diseases, and the true remedy for their cure. Gentlemen, I leave the matter in your hands, knowing that—

“Wise men ne'er sit and wail their losses;”

and that “a word to the wise is sufficient.” You must be up and doing: “the cattle upon a thousand hills will continue to be as it was of old, the symbol of wealth and honour.”

Mr. EDMONDS (the President): There was one point in the lecture which I noticed particularly, and that was as regards the obtaining of statistics of the diseased cattle—the number diseased and the money value—in order to place these statis-

tics in the hands of our members. I think that a material point, and a very good idea. I hope some gentleman will continue this discussion, and if any one wishes to ask a question of Mr. McBride, I am sure he will answer it.

Mr. McBride signified his assent.

Mr. E. BOWLY said: I forget the law—they are obliged to slaughter fat cattle are they not now?

Mr. McBride: After they have travelled into our markets. They are not destroyed at the wharves, they travel through London and other large towns before they arrive at the markets, and propagate disease through the country. What should be done is—they should be killed at the wharves. Also store cattle; we know they can travel anywhere they like—they are not killed.

Mr. E. BOWLY: Surely they undergo some quarantine?

Mr. McBride: None whatever; no quarantine.

The President: They did at one time.

Mr. McBride: They are passed by the inspector. If there is one or two diseased of course the whole cargo can be condemned.

Mr. BOWLY was not aware they could come inland.

Mr. McBride: The disease is as bad in Ireland as in Germany, yet the Irish cattle can travel wherever they please. The Irish have plenty of pleuro-pneumonia, which has, I believe, caused more loss than the cattle plague, because it has been continued through at least thirty years.

Mr. BOWLY: I think it an important subject, and one for action for a club like this. We know what restrictive measures have done—we saw their efficacy during the time of the cattle plague, for whilst there were restrictive measures the foot-and-mouth disease and pleuro-pneumonia almost disappeared. We cannot give many statistics here, for we never have it. Even when it was in the country a hundred years ago I think the Cotswold Hills were exempt then. I am sure I should be glad to do anything I can to strengthen our members' hands, and to obtain restrictive measures. I should have liked to have seen a larger meeting here. I feel rather warmly upon the subject myself.

Mr. McBride: We have here about twelve agriculturists present representing the Cirencester Agricultural Chamber on such an important subject as cattle disease—how can they expect Government to take an interest in it, when they do not take an interest in their own affairs?

Mr. E. RUCK said: As one of the agriculturists of Gloucestershire, I may say that I believe we suffer less than any other of the counties. Sheep are the principal stock in this district, not cattle. I agree with the lecturer—we should have been pleased to have seen the whole of the farmers here to have listened to his interesting lecture; but still we must remember that this district is not so interested in cattle as other counties.

Mr. McBride: It shows their selfishness when they won't assist those who require a little help.

The President: I am thankful to say that we know nothing of the cattle plague in this district, neither have we known much of the pleuro-pneumonia. I have no doubt that arises from the fact that we do not trade in cattle. With regard to the foot-and-mouth disease, I can give a practical illustration of its bad effect. Many years ago we had it among our dairy cows, and the effect was exactly described by Professor McBride. In 1865 we had some cattle at a farm in Berkshire—about twenty. These cattle were divided into two lots, one came to my own farm, the other ten went to a meadow near the turnpike road, and I have no doubt that through cattle travelling along that road those in the meadow were attacked by this disease, and at Christmas their value was not so great by £5 a-head as those in the lot that came home; whereas at the time they were parted, in the beginning of September, they were equal in value as near as possible. I will just say with regard to the point Mr. McBride spoke of, the real fact is, the gentlemen of the neighbourhood say they can read and study these papers on the next Saturday morning, and they are anxious to get home from market on the Monday evening, so they leave it to a few.

Mr. E. BOWLY: I think the matter very important. I think the best thing would be to appoint a committee to communicate with other chambers. We have heard the lecturer read the enormous losses our brother farmers incur, and we do not know how soon we may suffer. I hope it will be taken up generally by Chambers of Agriculture, and impressed upon Government. I believe I am correct in saying

that the foot-and-mouth disease and pleuro-pneumonia are increasing every day.

The PRESIDENT: Mr. Bowly proposed a committee; will any gentleman second it?

Mr. SNOWSELL seconded the proposal.

Professor CHURCH, after some conversation with Mr. Bowly, said he proposed an amendment—that the existing committee should take the matter in hand.

Mr. BOWLY: I have no objection at all; I am only anxious it should not be lost sight of.

The amended resolution was taken as carried, the meeting being unanimous, and Professor McBride was added to the existing committee.

Professor WRIGHTSON asked the lecturer what are his views with regard to inoculation for pleuro-pneumonia?

Mr. MCBRIDE: So far as my own experiments go I do not believe in inoculation; they require to be extended, but so far as they go I do not believe in inoculation for pleuro-pneumonia as any preventative.

Mr. BOWLY: It is not so fatal as cattle plague?

Mr. MCBRIDE: We lose a great many by it—about 30 per cent.

Mr. BOWLY: I mean that of those attacked by pleuro-pneumonia a greater number recover than of those attacked by cattle plague.

Mr. MCBRIDE: About 20 per cent. of the cattle plague recover.

Mr. BOWLY: I was not aware it was so many.

Mr. MCBRIDE: It was not at first, but towards the end of the time that number recovered. The virus of disease is seldom so fatal after it has been transmitted through a number of living beings.

Mr. H. RUCK: The lecturer has told us that we cannot quite look after our own business; he has also told us the disease has come from abroad, and I think one of his points was that all cattle should be destroyed at the port. If we should advocate that, it would be preventing the transmission of food over the country—that would be protection. I don't think our Government would quite join with Mr. McBride in slaughtering the cattle. I think his remarks very good indeed—that farmers should register their stock. I beg to propose a vote of thanks to Mr. McBride; we are much indebted to him.

This was seconded and carried.

THE BREEDING AND REARING OF HORSES.

At the last meeting of the Lavenham Farmers' Club, Mr. G. D. BADIHAM read the following paper: 1st. As regards horses for riding. We constantly hear the remark, "Breeding nags does not pay." Why does it not pay? Simply because we breed amiss. Do we not put mares without any known pedigree, and too often with some hereditary defect, to any stallion which happens to come near us? If we wish to improve our cattle, sheep, or swine, the services of a good male animal are secured, and sometimes we go even further, and purchase some good females; but we take no trouble with our horses, and frequently the one we use is hardly looked at. Certainties in horse breeding are fallacious, yet we must be guided by general rules, and the breeder who carefully studies the selection of both sire and dam will far outstrip the reckless breeders. Our great object should be to produce an animal as near perfection as possible; for this end the sire chosen should be possessed of those points in which the dam may be deficient. There is in my opinion but one true shape for a horse, whether it be a cart horse or a hunter, and depend upon it the sloping shoulder is as necessary for the one as the other, for if he has a straight shoulder he cannot walk, and the old story about not being able to draw with a sloping one is sheer nonsense. Breeding and rearing the noblest animal in the whole creation is, and ought to be, the delight of man; but beside the pleasure we derive from it, we ought also to obtain some profit, which cannot be done unless we combine judgment with it. You must, if you wish to succeed, give up using the half-bred horses, except upon thorough bred mares; if you have the alloy in the dam you do not want it in the sire. The modern hunter or hack must be thorough bred on one side, and I should like to see the same rule in our Agricultural Society in Suffolk as they have in the North, where no animal is allowed to compete unless the pedigree show at least two crosses of blood. The great improver of his species is the thorough bred horse, and if we wish to succeed in breeding a modern hunter or hack we must select a mare free from hereditary ailments, and put her to a horse with plenty of stout blood in his veins. In the best hunting counties, such as Leicestershire, Northamptonshire, and many others, the cocktail stallion is unknown, and more will be found in the Eastern Counties than in any part of England. The selection of a good mare is of the greatest importance. I have scarcely ever seen a bad horse of any class from a really good mare, and there is scarcely an instance of extraordinary merit but the prevailing points of excellence could be traced in some way to the dam. At the same time we must not overlook the importance of good sires, for without these we shall assuredly fail in our attempts to breed a good animal. How does the chance breeder proceed in the choice of his sire? Does he look for one which has all the points good in which his mare is defective?

If he did, half the evils might be avoided; but chance is again trusted to, and all the anxiety he evinces in the matter is the cost of the horse's services; while in other cases it is the one which passes the gate, or is close at hand, which is chosen. He may have every defect to which horse-flesh is liable, but this is no matter to the chance breeder; a foal is all he wants, and I once heard a breeder say, "A foal was a foal, and it could not be a calf." He never pictures to himself the cost of rearing a colt up to three, four, or five years old, and then finding the animal has a spavin, a curb, or a ringbone. The systematic breeder never allows any chance-work to creep into his concerns. Whether he breeds racers, hunters, carriage, saddle, or cart horses, he selects with deep anxiety the animals he intends to breed from, of both sexes, and those which he can trace back to blood of unquestionable family in their class. Breeders of this description are not numerous in these counties, but there is nothing to prevent their becoming so, and they will generally succeed best by confining themselves to breeding only one class of horse, though of course there are exceptions to this as every other rule. One I remember, some years ago, in the eastern parts of this county; I remarked that all his colt foals were sent away as sires, and his fillies became first-class mares, and were always winners at the Suffolk Agricultural Shows; and before he let his home farm, he offered to show his five mares with any five in the county; the challenge was accepted by the late Mr. Catlin, who was beaten by him; the same gentleman bred also a few hunters and hacks, and in these he was just as successful; his carriage horses were bred by himself, and they had not their equal in the county, and one of his hacks I shall always remember. I mention these facts to show it is not so difficult as people fancy to breed good animals if you only set about it in the right way, for "like breeds like." Temper, power, endurance, spirit, generally follow the dam; form, action, &c., the sire. Without losing sight of the power, the more breeding a hunter can have the better, for they are often called on to perform extraordinary acts of gameness, and from the thorough-bred comes all the pluck and courage to stay a distance, and by their blood-like action to give their riders a comfortable seat in their saddles. It is not necessary for a mare to have been a fine performer herself, but there are a few points indispensable, viz., a sloping shoulder, deeper girth, short cannon bones, a good back, big quarters and thighs and hocks, with her hind legs in the proper position under her. As I have before said, temper, spirit, and endurance are all very essential in the dam. Mares to breed carriage horses need not be so well bred as those for breeding hunters, but they must have plenty of knee action, with good heads, necks, and shoulders, and should be put to a thoroughbred sire if you wish to breed first-class animals. The same thing applies to hacks, and it

is impossible to breed a modern hack except in this way. As regards horses for agricultural purposes, there is nothing will interest you more as a body of advanced practical farmers, than what we want to constitute a good draught brood mare, and there is nothing connected with agriculture of greater importance to the farmer than his horse-power, with the exception of manual labour. It is true that steam is largely employed where formerly horse-power was used, both in cultivation and thrashing; but horse-power still is, and must always be, the principal means by which a farmer gets through his work, and steam becomes more of an auxiliary than a *real* power. Such being the case, is it not our interest to have this great power of the most approved class? and in order to effect this the same attention must be paid both sire and dam as in breeding horses for the field or road. A pedigree of undoubted authority is absolutely necessary; if you see two horses with all that you want in a sire, but no pedigree, or only an imperfect one, and another with some faults, but with a pedigree, select the latter, as you are more certain to get an average foal, but with the other it is all chance; you may get what you want, or you may not. The all-important point of soundness is now to be considered. It is the essential one in the brood mare for all purposes. It is a notorious fact that there are certain diseases to which parents are the subjects, and which will descend in the progeny. Ring-bones and sidebones are hereditary in almost any form. Indeed ringbones will come out after many generations. Blindness, a special disease of horses, is certain to follow breeds; and on no account would I recommend breeding from either sex affected with it. A mare may lose an eye or become blind from accident; but though this would not be hereditary, it unfits her for that office which nature has destined her—to protect and shield her offspring from injury, besides it makes her clumsy, and she is liable to tread on the foal. Diseases of the respiratory organs, as roaring, whistling, broken wind, and thick wind, are all, I consider, hereditary diseases. Diseases in the feet should be carefully avoided. Sand-crack I have seen follow in families, and seedy-toe also. In conclusion, I may add that it is most important to have both sire and dam in a healthy condition, as the progeny of sickly-framed animals are sure to inherit some of their failings. Perfect conformation and soundness in both sire and dam are of the greatest importance. Before I conclude I will make a few remarks upon the treatment of foals and yearlings, &c. Having bred a good animal, the next thing we have to attend to is his being well cared for. I will suppose you are breeding animals of the right sort, and such as will bear a little increased expenditure to be bestowed upon them. I will begin with the foal; get them early as possible, and give the dam bran, corn, and hay. Corn should be continued a good part of the summer, if you intend having a good yearling, and three feeds should be given to the foal daily, when it is weaned; during the following summer, and, indeed, till the animal is rising three years old, no corn will be necessary, but at that age it should be brought into the stable and commence its education; this course requires good management; but I would on no account allow it to be taken off the farm, to be what is termed broken; if you must employ a person for the purpose of getting the animal in a fit state to be ridden, by all means have it done at home. And I strongly advise all breeders to have their foals haltered and tied now and then, when they are sucking upon the mares. The greatest care is necessary with stock of this description; it is quite possible to avoid accidents in a great measure—at all events we should try to avoid them; allow only a very careful man, who uses your animals gently, to have anything to do with them, and I feel sure you will find accidents much less common than heretofore.

Mr. W. BIDDELL (the chairman) said the great aim in breeding hunters was to obtain good weight-carriers. There was a gentleman in the room who had one of the best he knew, and that gentleman had reasons to be proud of it, as he not only bred it himself, but he rode it well, and generally occupied a good position. He alluded to Mr. Edgar.

Mr. EDGAR said his experience was something like that of Mr. Hawkins—he had bred so many horses that he was rather sick of the business. As far as cart-horses were concerned he had got on very well from Chester Emperor, and had bred every horse he was using on his farm; but he never succeeded in getting more than one good nag, and that was a very good

one. He had bred several in the same way, but none of them had turned out so well. He had kept some of them up to five years old, and then found they were worth about £10. The animal the Chairman had referred to was really a good one—he never knew a day too long or a fence too big for her. He had now turned all his female animals over to Mr. Hustler, and perhaps he would tell them how he was getting on with them; he was afraid he was following in his (Mr. Edgar's) steps. He thought he should begin again, and not be quite so duck-hearted as Mr. Hawkins. He was afraid the sire he used was not all he ought to have been. It was a professed thoroughbred, but he did not think he was quite.

Mr. HUSTLER said Mr. Edgar had given such a glowing description of the animals he had handed over to him that he did not think it was necessary for him to say much. At any rate he had not put them forward as a very profitable sort to keep. He thought some of Mr. Badham's remarks applied very much to the animal that he and Mr. Edgar bred from; he did not think the dam was perfectly sound—whether by accident or hereditary disease he could not say—and he believed her progeny inherited her defects. That was one of the causes why they bred amiss. He had not yet given up hope, and thought some of them might yet turn out right. He thought it was quite right for farmers to breed their own cart-horses. Grazing bullocks did not pay them very much, and he thought if they paid a little attention to the horses they would pay as well as the cattle, besides enabling them to keep a good supply of young horses to work on the farm; for he believed it was best to sell the horses that had reached eight or ten years old, and put colts in their places. The difficulty they had in breeding nag horses was that they did not get many good sires in the neighbourhood, and people had some diffidence in sending mares to a distance, as there was some uncertainty about getting a foal that would pay them.

Mr. BADHAM believed the breed of the Suffolk horse was as pure as the blood horse; and it was much to be regretted that they had not a stud book of the Suffolk breed. They had not the guide they ought to have; but animals that had been prize-winners for generations had their pedigree pretty well established.

Mr. TALBOT agreed with what Mr. Badham had advanced, particularly as to the importance of having true-bred animals on both sides; and, undoubtedly, those points which were deficient in the dam should be particularly looked to in the sire. Suffolk, as they were all aware, was not a nag-breeding county; but if they went into many counties—Yorkshire, for instance—they would see strings of nag and carriage horses, worth from £80 to £100 each, that were being sent up to the London market. They had been picked up at different places, and an intelligent dealer would always manage to get together a number of such horses. Why was it that Yorkshire and some other counties should be so successful in nags, hunters, and carriage horses? Simply because more attention was paid to their breeding than was the case in Suffolk. Here it was too much the practice to use any horse that might be travelling, without regard to shape or make, or how it would mate with the dam. It might certainly be said that Suffolk excelled in cart horses, and there was as much difference between a Suffolk cart horse and a Yorkshire cart horse as there was between a Suffolk and a Yorkshire nag, and for the reason that more attention was paid to the breeding of the one than the other. Many people had said it was because the pastures were so superior in those counties. Undoubtedly that was an essential point, and where there was good pastures horses could be brought up cheaper than where they were inferior. Mr. Badham had dwelt a good deal upon pedigree, and they must all concur that there was much in that; but it was not long since he heard one of the best judges of horse-flesh he knew say that breeding from pedigree was useless unless they had the right shape and conformation and the requisite propelling power. He was far from thinking they ought to ignore pedigree; but many pedigree horses were ill-shaped animals and ill-adapted for the purpose for which they were intended. Mr. Badham had given them some excellent hints with regard to the management of colts; for undoubtedly after they had been at great expense in breeding an animal it was ill-judged policy to stint him in the way of keep or management. Nothing wanted to be kept so well as mares and foals, and the latter should be well kept from the time it was foaled until it really came into use. Why was it that thoroughbred animals were developed so

early? It was simply because of the forcing system pursued with them. Farmers forced both bullocks and sheep: they now brought out hoggets of 5, 6, and 7 stone, while formerly it used to be two or three years before they reached that weight, and the same principle was applicable to horse breeding. The better they were kept and the more they were forced the earlier they would come to maturity.

Mr. BADHAM, in acknowledging a vote of thanks, wished to make one remark as to customers. If they would only breed such animals as he wanted them to breed, they would have no difficulty in finding customers for them. A horse he was now

riding, which he bred by one of Major Barlow's horses, he could have had 50 customers for in London. Horses were exhibited at shows, and took prizes, and gentlemen saw them there and were anxious to buy them. There might be a difficulty in selling inferior horses, and the sooner such were sold the better, but they would always find plenty of customers for horses of the class he wished to see bred. With regard to sloping shoulders, he was aware that many people were of opinion that a straight shoulder was the proper thing for a horse to pull by, but he believed that many were now convinced that that was a mistake, and were coming round to his opinion.

THE BEST METHOD OF MANAGING THE HAY CROP.

At the quarterly meeting of the members of the Morayshire Farmer Club Mr. YOOL (Conlarbank), the chairman, said: The question for discussion is "Hay: What is the opinion of members as to the best method of managing the hay crop in this country?"

Mr. ROSE could not prescribe anything better than the usual mode of cutting it, letting it lie a day or two, putting it up in small coles, then into larger ones, and allowing it to remain in stack for the winter. It would scarcely do in this country to adopt the English plan of turning it over and over for two or three days. He fancied the plan the farmers adopted in this country was the general rule of this part of the country.

Mr. HARRIS was in the same position with Mr. Rose in regard to the growing of hay, for he had scarcely grown 100 acres during his lifetime. He thought they should cut it pretty green, beginning with it when the bloom was on it, certainly before it had left it. He would leave it in the swathe for two or three days, then turn it gently over with the handle of a fork, and get it into cole as speedily as possible. They were apt to forget that the hay grown in this country differed from natural grasses and seeds of England, because the latter consisted of clover without any grasses, grew large and rank, with stalks like pea straw, that when dried much, lost its nutritious juices and grew hard. It had, therefore, to be sorted in quite a different manner from the hay in this country, which was a mixture of clover and grasses. Some years ago he had an English gentleman with him, a very successful farmer, from the midland counties. That gentleman laughed at the manner in which the hay was being managed, and it was left to him to try his own way with it. He knocked it about in the English fashion, and appeared to leave about one-half of it on the field. It was put into the stack, and, though it heated, he insisted it was all right, until the cattle came to get it, when they would not eat it. He thought the plan presently pursued in this country, though very much run down, was the proper way of making hay.

Mr. WALKER (Leuchars) said he had perhaps more experience in the way of making hay than any gentleman present. The way they made hay in the county of Fife, so far back as forty or fifty years ago, was to cut it and let it lie for two or three days, the time depending upon the strength of the hay. When hay was left in the swathe as cut, it would stand a great deal of rain, but if they turned it over and over, it was easily spoiled. After lying for two or three days in the swathe, he would turn it over with the handle of a fork, then put it into cole, and it would stand two or three good showers; then put three or four of the small coles into one, and allow it to stand till it could be put into stack. He might mention, with regard to his experience of the English mode of making hay, that they turned it up at once immediately after it was cut, and put it into little handcocks at night. After turning it up, however, it began to rain; but, being fair the next afternoon, they turned it out of the small cocks and began to put it into larger ones. It rained again, and they wrought away in that manner with it till they got it put into large coles, and by the time that operation was completed the hay was almost on fire. They had to turn it out again, and the crop was lost nearly altogether. They could not in this country depend upon weather for making the hay, as in England.

Mr. PATERSON (Mulben) said he generally made a little hay. If it was hay for use, he cut it when the bloom was upon the clover. If the weather was very good, perhaps a

day or two was sufficient time for it to lie, and if there was much sunshine at the time it was cut, he coled it at night. He did not make the coles large, but increased them in size as he thought expedient. With regard to hay for seed, he let it ripen pretty well before cutting, and if the weather was good he left it out a day or two and then shook it over a paling bar. He never thrashed hay. If the weather did not look well, he put it into stook; and if the weather improved, he shook it over a bar out of the stook; if the weather was not favourable, he carried it home and stored it till satisfactory weather came for shaking it out.

The CHAIRMAN said, before summing up, he would express his own opinion. In the first place, in their country, as almost no natural grass was cut for hay, the system pursued must be considerably different from that pursued in England. The whole of the grasses cut for hay in this country consisted of mixed clovers and grasses grown under a regular system of rotation. There was one point that had not been alluded to by any of the speakers, the modes of cutting the crop, whether it was best done by scythe or machine. The machine, he was aware, was in great favour, and was generally admitted to do its work in as good style as the scythe. His own experience corroborated that. By the help of the mowing machine he could cut a great deal more than with the scythe, and they had the crop left lying thin upon the ground behind the machine, so that in good weather they could carry it off very much sooner than they could if left lying in swathes by the scythe. That was no inconsiderable advantage. In cutting by the scythe, the crop being left in swathes took longer to dry. During wet weather, cutting by the scythe was the best course, because in swathes the hay was not so much liable to be damaged, lying in a large body the rain was easier thrown off it. If the weather was dry, they would cut better with the reaper. The machine considerably reduced the expense of the operations, while it was clear that where the surface of the ground was moderately even and free from stones, the mower could do the work as well as the scythe, and could be set to cut quite as close as was desirable, and made more level work than the majority of scythemen. The difference of expense in mowing a heavy crop of grass by machine and scythe was considerable, amounting, according to his calculation, to from 2s. 6d. to 3s. an acre in favour of the machine. A comparative statement of the cost might be put thus. The manual labour for cutting with the scythe a heavy full crop of grass might be put down at 4s., or say 4s. 6d., an acre. Against that, cutting by the machine, he would put down the manual labour at 2½d. an acre, allowing that the machine would cut ten acres a day, which it would do in a fair crop; the horse labour at 6d. an acre, which would give 5s. a day for horses; the percentage upon the mowing machine he estimated at 9d., making a total of 1s. 6½d. an acre, and giving a difference in favour of the machine at 2s. 11d. per acre. At least 2s., and as he thought 3s., could be saved by the use of the mower in place of the scythe. They had also to add the lessened cost of the after operations, for that they did not require to turn the hay made the case still stronger in favour of the machine. If the crop consisted principally of Italian rye-grass it should be cut on the appearance of the flowers, as this grass is such a fast grower, that if cut at this stage a second cutting can be obtained nearly, if not quite, equal to the first, and on good land a third, and perhaps even a fourth cutting. With regard to ordinary rye-grass, it might be allowed to produce the flower,

and clover was best cut when the greatest number of heads were in full bloom; if left longer the leaves begin to fall off, the stems got more woody, the weight of crop was diminished, and the quality deteriorated. Fields of mixed grasses and clovers, if for ordinary hay, should be mown when the greatest number of the plants are in full flower. When the crop was cut by the mower it required very little handling during the drying operation, the principal thing necessary being to spread out somewhat more thinly that part of it which was drawn together by the dividing shoe of the machine, in order to clear a space for the horses' feet; then the less turning they gave it the better, until it was put into small coles. When cut by the scythe it should be turned as quickly as possible, without knocking it about on the second or third day, in order to let the drying process get through the swathe. It should then be put into small cocks, and carried as soon after as there was a chance of it keeping. All this should be done with as little rough shaking as possible, so as to retain the leaves of the clover unbroken. He thought the use of the tedders would be of no use to them, but rather disadvantageous, and for this reason that their clovers would not bear to be knocked about with the tedder as the natural grasses of England would. If they knocked the clover about they

knocked off all the fine leaves, which were very nutritious to the cattle. The practice of letting hay stand long in the field in small cocks he had frequently observed in this and other parts of Scotland was very wasteful. When allowed to stand long on the fields in these small cocks it would be found that the parts of the cocks next the ground were very much deteriorated, in fact, were worth little or nothing, except for manure. As soon as it was fit to be carried to the ricks it should be carried; in fact, the whole process of cutting, drying, and carrying the hay crop, should be done as fast as possible with safety. If just sufficient time is allowed to let it dry thoroughly, so as not to heat in the stack; the more quickly it was carried the less would be the loss incurred through wasting and fermentation. These were his experiences, and from what had been said it seemed to him that the finding of the meeting would be that a party making hay could make, on the whole, very little improvement upon the prevalent system. As Mr. Harris said, Scotch farmers had been often taunted for the inefficient way in which they made hay, as compared with the English farmers. But really there was no comparison between the two. By machines they might cheapen the cost of making hay, but, on the whole, their mode of managing the hay crop could not be very much improved upon.

CAPITAL IN AGRICULTURE.

At a recent meeting of the Staffordshire Chamber of Agriculture, the Earl of Harrowby presiding,

Mr. CARRINGTON SMITH introduced a discussion "On the causes now in operation which discourage the application of capital to agriculture." He attributed the discouragement alluded to to three principal causes. The first was the unjust incidence of taxation on real property. Next to that he considered that a great deterrent was the infancy of the science of agriculture. By that he meant not that agriculture was in its infancy, but that the application of true scientific principles to farming pursuits was very imperfectly understood. The third cause was the deficiency of a good land bill, and the total absence of power to compel compensation, either to the landlord for dilapidation caused to his land, or to the out-going tenant for unexhausted improvements. On this point he must hold that as the tenant ought to be paid for the latter, it was but a correlative that the landlord should be paid when the tenant had suffered his farm to deteriorate. If agriculture was to make that progress which it ought to make, and which he felt it would make in its race with commerce, there must be a more general knowledge of the productive capability of the soil; there must be just laws for landlord and tenant; and all must press forward, shoulder to shoulder, in friendly emulation. These were the only means of securing success.

Mr. ROBOTHAM expressed disappointment that Mr. Smith had not brought forward more causes than he had done as a solution of the difficulty, and remarked that in his opinion there were other reasons why, in a country so densely populated as this, and where such a great production of food was required, men of capital and skill did not embark in agriculture. He referred to that clause in leases which gives to the landlord an exclusive right to the game; and concluded by moving, "That one chief cause which prevents the employment of capital in agriculture is the preservation of game by the landlords."

Mr. STUBBS, who seconded the resolution, said he would be the last man to prevent his landlord coming over his farm and having reasonable sport, but not to such an extent as now existed.

Mr. BRAWN objected entirely to many of Mr. Carrington Smith's views, and did not altogether accord with Mr. Robotham's. Capitalists, he said, looked for both security and interest. Agriculture gave a smaller return for the capital employed than any other industry, and it could not be said that it afforded great security. It therefore became them to consider how a better return could be secured. The last vestige of protection on imported agricultural produce had been removed, and the farmer was put on an unequal footing with foreign producers. He submitted the following proposition: "That the application of capital to agriculture is discouraged by the absence of provisions which, whilst protecting the interests of the landlords, would give to the tenant security for money invested in improvements on the farm. That the de-

struction of crops by the ravages of ground game in many instances causes considerable loss to the tenant-farmer; and that the malt-tax and existing laws of levying local rates almost exclusively on land and buildings are a great discouragement to the application of capital to agriculture."

The Earl of LICHFIELD said, in his opinion, the main cause in operation which discouraged the application of capital to agriculture was, in the first place, the want of capital on the part of the tenant-farmers. The fact was that in the country where the farms were large the tenants were invariably men of capital. There were considerable tracts of land in that county which were not cultivated because of the want of sufficient capital, and other parts were badly cultivated through the tenant-farmers not having capital. He entirely agreed with Mr. Smith when he talked of the necessity for greater security for tenants' outlay; but he thought the application of capital upon a large scale to the land must be a work of time. He did not think landlords as a rule had been sufficiently business-like in their agreements with tenants; but had been content to let things go on, trusting to the good understanding which usually existed between them. With regard to the Earl of Warwick's published letter explaining his lordship's views on the Game Laws, he thought his noble friend was wrong in wishing to see discussion on agricultural matters stilled at meetings of that description. He (Lord Lichfield) could not see what harm there could be in discussing the question of the Game Laws. To avoid such meetings would be to avoid the discussion of subjects the proper understanding of which would be likely to produce a good feeling between tenant-farmers and landlords, as it would show to the tenants that the landlords were willing to discuss matters that affected them both in a rational spirit. As to the advancement of agriculture, nothing operated so strongly in retarding it as a want on the part of farmers of a scientific knowledge which could only be obtained by degrees. His lordship advocated the necessity for a law which would give ample compensation for permanent improvement by the tenant, and referred to the different customs existing in the counties of Lincoln and Stafford, expressing an opinion that there should be one uniform system. In some places landlords gave their tenants power to kill rabbits upon their farms; but that power was of little use when next to their farm there was a cover into which the tenant could not go. The tenant had no power to defend himself against the mischief done by game. He thought that landlords ought not only to give their tenants power to kill rabbits during a certain time of the year, but they should also assist the tenant to kill them. With regard to the malt-tax, every argument was against it except one, and that was as to how the amount now raised would be raised if the tax were abolished.

Mr. BRAWN's resolution was carried.

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

MONTHLY COUNCIL: *Wednesday, June 1.*—Present, the Duke of Devonshire, K.G., in the Chair; Earl Cathcart, the Earl of Powis, Viscount Bridport, Lord Chesham, Lord Kesteven, Lord Tredegar, Lord Vernon, Lord Walsingham, Sir Watkyn W. Wynn, Bart., M.P., Mr. Cantrell, Colonel Challoner, Mr. Clayden, Mr. Davies, Mr. Dent, M.P., Mr. Druce, Mr. Jonas, Colonel Kingscote, M.P., Mr. Ridley, M.P., Mr. Shuttleworth, Mr. Thompson, Mr. Webb, Mr. Wells, M.P., Lieut-Colonel Wilson, and Dr. Voelcker.

The following members were elected:

Baker, William, Combe Farm, Woodstock, Oxford.
 Beaumont, Joseph, Ducklington, Witney, Oxford.
 Butler, Edward, Ewell Hall, Kelvedon, Essex.
 Caffin, Peter, Hazelwick, Crawley, Sussex.
 Cleminson, Robert, Endon, Stoke-on-Trent.
 Colman, J. J., Carrow House, Norwich.
 Combe, Thomas, Oxford.
 Davis, Stephen, Woolashill, Pershore.
 Dawson, George, Thorncliffe, Sheffield.
 Freer, Jesse, Rothley, Loughborough.
 Gorst, William, Garston, Liverpool.
 Hall, Richard, Great Barford, Deddington.
 Hansell, Rev. Henry, Magdalen College, Oxford.
 Hawkes, William, Thlenford, Banbury.
 Hitecock, Rev. John, Clitterne, All Saints, Heytesbury.
 Hopkins, Rev. T. H. T., Magdalen College, Oxford.
 Hornby, Captain Montague, Hanley House, Shrewsbury.
 Hudson, John, Subberscroft, Lea Cross, Salop.
 Inge, Rev. George, Thorpe Constantine, Tamworth.
 Jones, Edward, Park Farm, Caersws.
 Jones, George, Osney Wharf, Oxford.
 Jones, Stephen, Lea Cross, Salop.
 Kirbell, Edward, Latimer, Chesham.
 Lake, John, Edgeworthy, Morehard, Tiverton.
 Maedona, Rev. J. Cuning, Hillre House, West Kirby, Birkenhead.
 Mauwaring, Charles S., Galltaenan, Rhyl.
 Mansell, Edward, 27, Great George Street, London, S.W.
 Marsh, Richard, Little Olley House, Hitchin.
 Masters, Joseph, Bengeworth, Evesham.
 Mount, William George, Wasing Place, Reading.
 Nalder, James Hall, Hasely Iron Works, Tetworth.
 Paxton, Edmund, Willaston House, Biester.
 Pritchard, William T., Angel Down Farm, Wantage.
 Roberts, George, Overbury, Tewkesbury.
 Robinson, George John, Maunby, Thirsk.
 Rush, Thomas, Babraham, Cambridge.
 Savage, Gilbert Cole, Pony Knoll, Shifnal.
 Sawyer, Henry G., Richmond Park, Richmond, S.W.
 Smith, William, Sandon House, Clifton Down, Bristol.
 Townsend, William, Westcote, Chipping Norton.
 Troutbeck, George, Barton-under-Needwood.
 Vernon, Benjamin, Aychley, Prees, Salop.
 Waller, Hugh Sidney, Farmington, Northleach.
 Warrington, William, Bretby, Burton-on-Trent.
 Wearing, J. W. Oxford.
 Whitfield, Thomas, Oswestry.
 Williams, E. A., Gilli, Mold, Flintshire.
 Williams, John Fisher, 10, Queen's Square, Bloomsbury, London, W.C.

The motion for the adjournment of the Council was withdrawn.

FINANCES.—Mr. Davies presented the report, from which it appeared that the secretary's receipts during the past month had been examined by the committee, and by Messrs. Quilter, Ball, and Co., the Society's accountants, and were found correct. The balance in the hands of the bankers on May 31 was £3,659 3s. 7d. The com-

mittee reported that a new valuation of the household furniture, fixtures, and books in the library had been made, and they recommended that the amount of this valuation, £1,451 7s. 6d., be substituted for the previous estimate of £2,000. The attention of the committee having been called to the suggestion made by Mr. Freebody at the last general meeting, viz., "That a committee, to consist of three governors, three life members, three annual subscribers, and one honorary member—not heretofore in any way employed by this Society—be appointed to inquire, and confer with its present honorary and official staff, in order to report at the next general meeting what measures this Society can best adopt in order that some of its accrued funded capital should become of greater practical service towards the general advancement of English agriculture than of being invested in the New Three per Cents.;" they therefore recommended that a communication be addressed to Mr. Freebody, referring him to clause 9 of the charter, in which it is enacted "that the president and council shall have the sole management of the income and funds" of the Society. This report having been adopted, the committee gave notice, in accordance with bye-law No. 76, that at the next December council meeting they will propose a bye-law embodying a suggestion, contained in a letter from Mr. G. Drewry, that members of twenty years' standing and upwards should be permitted to compound for future annual subscriptions by a single payment of £5.

JOURNAL.—Mr. Thompson (chairman) reported that the committee recommended the preparation and publication in the Journal of a map of the prize-farm district round Oxford, showing the surface-geology, at a cost not exceeding £40. In accordance with the notice given at the last monthly Council, the committee moved for a grant of £100 towards defraying the cost of an autumnal visit to representative farms, in order to obtain a report for the Journal on the following departments of Scotch agriculture:—(1) Arable farming in the Lothians; (2) Arable farming in the western counties; (3) A large dairy farm; (4) Hill sheep-farming (blackfaced); (5) West Highland cattle-farming; and (6) Aberdeenshire cattle-farming, including descriptions of any special arrangements for supplying the London market. The committee also recommended that a competent writer be engaged to report on the trial of implements at Oxford, and that he shall embody in his report the awards and opinions of the judges, which shall be given before leaving Oxford. This report was adopted.

CHEMICAL.—Mr. Wells, M.P., reported that the committee recommended the publication of the following quarterly report, containing analyses and information furnished by the consulting chemist:

There is at the present time need of very great caution in the purchase of Peruvian guano. Samples have been forwarded to Professor Voelcker from all parts of England; for instance, from Devonshire, Staffordshire, Nottinghamshire, and Surrey, in each of which the guano, although in some cases coming direct from the importers, and being genuine Peruvian guano, was damaged by sea-water, contained a considerable proportion of sand and rock, and was inferior in value to the best samples by 50s. to 60s. per ton. The great number of these guanos that have been forwarded for analysis prove the truth of the warning given earlier in the year, that the qualities of guano now arriving are so variable and uncertain that great caution is necessary in making purchases

of this manure. The following are examples of such inferior guanos :

Moisture	...	...	...	...	...	16.10
*Organic matter and ammoniacal salts	...	...	...	...	...	43.98
Phosphate of lime	...	...	...	...	...	20.73
Alkaline Salts	...	...	...	...	...	10.01
Sand	...	...	...	...	...	9.18
						100.00

*Containing nitrogen 10.65
Equal to ammonia 12.21

This guano was sold as "best Peruvian guano," at £14 2s. 6d. per ton. It is, however, not best Peruvian guano, for it is damaged by sea-water, contains too much sand (rock), and yields only 12 per cent. of ammonia, and is worth about £2 less per ton than Peruvian of average quality.

Moisture	...	...	...	...	...	17.79
*Organic matter and ammoniacal salts	...	...	...	...	...	46.24
Phosphates	...	...	...	...	...	20.21
Alkaline salts	...	...	...	...	...	10.75
Sand	...	...	...	...	...	5.01
						100.00

*Containing nitrogen 11.49
Equal to ammonia 13.95

This guano was bought at the full market price of £14 5s. cash. It is genuine, but damaged by water, and worth about 25s. to 30s. less. per ton than good Peruvian guano.

Moisture	...	...	...	...	...	16.04
*Organic matter and salts of ammonia	...	...	...	...	...	41.38
Phosphate of lime	...	...	...	...	...	20.81
Alkaline salts	...	...	...	...	...	9.32
Insoluble siliceous matter	...	...	...	...	...	12.45
						100.00

*Containing nitrogen 9.65
Equal to ammonia 11.71

The bulk of this guano was delivered in a very damp state, and with a quantity of stone. The quality was guaranteed first-class Peruvian guano, and the price charged £14 per ton. It is genuine Peruvian guano damaged by water, and, apart from the larger stones, contains 12½ of fine siliceous matter (rock), and yields only 11¼ per cent. of ammonia, instead of 1½ to 15 per cent., which Peruvian guano of good quality at present contains, on an average.

The committee next directed attention to the following analysis, showing the composition of a sample of British guano, sent to Dr. Voelcker by Mr. H. Robbins, Northfield Farm, Witney :

Moisture	...	...	...	...	...	26.80
*Organic matter	...	...	...	...	...	11.09
Phosphate of lime	...	...	...	...	...	.65
Oxide of iron and alumina	...	...	...	...	...	2.94
Carbonate and sulphate of lime	...	...	...	...	...	47.26
Alkaline salts and magnesia	...	...	...	...	...	1.72
Insoluble siliceous matter	...	...	...	...	...	9.54
						100.00

*Containing nitrogen53
Equal to ammonia64

This so-called guano is sold as Pound's British Guano, at High Street, Bromley, Bow, E., at £3 10s. per ton, and is described by the maker as "an extraordinary scientific combination of night-soil, sulphate of lime, and bones, possessing immense body, which gives it great durability and feeding power, whilst no known manure can compare with it in quantity of fixed ammonia." The preceding analysis, however, shows that the sample sent to Mr. Robbins contains merely a fraction of one per cent. of ammonia and phosphate of lime, and is all but worthless as an artificial manure. Its strong smell is chiefly due to animal or bone-oil.

As an instance of the caution that is requisite on the part

of agents for the sale of manures, the committee wish to call attention to the following case, in which the son of a farmer was about to become agent for a manure known as the British Economical Manure. Before undertaking this agency he was requested by a friend who had formerly purchased the manure to have an analysis made of the article, and accordingly Mr. Stephen H. Allen, of Eastover, Andover, forwarded a sample to Dr. Voelcker, which was analysed, with the following result :

Composition of a sample of British Economical Manure, sent by Mr. Stephen H. Allen, Eastover, near Andover, sold at £12 per ton by B. Coveney, 17, Devonshire Square, Bishopsgate Street, E.C. :

Moisture	...	...	...	...	...	9.86
Crystallised sulphate of iron (green vitriol)	...	...	...	...	...	28.81
Sulphate of lime	...	...	...	...	...	2.05
Chloride of sodium (common salt)	...	...	...	...	...	13.39
Bisulphate of soda	...	...	...	...	...	30.69
Insoluble siliceous matter (sand)	...	...	...	...	...	15.20
						100.00

Nitrogen06
Equal to ammonia07

The proprietor of the British Economical Manure states in his prospectus that 1¼ to 1½ cwt. per acre has been found in result equal to 3 cwt. of the best Peruvian guano, and cautions farmers not to apply more than 1¼ to 1½ cwt. to the acre. This caution is very appropriate, for a compound like the Economical Manure, which contains no intrinsically valuable fertilising matter, and which is a mixture of cheap saline matter with green vitriol—a constituent inimical to vegetation—is certain to do injury if it be used in quantities in which Peruvian guano and other concentrated artificial manures are usually employed.

In corroboration of the above, the following analysis of another sample of the same manure, which was sent by Mr. G. W. Hicks, Hillgrove, Wells, Somerset, may be quoted :

Moisture	...	...	...	...	...	11.84
Crystallised sulphate of iron	...	...	...	...	...	20.92
Sulphate of lime	...	...	...	...	...	2.81
Chloride of sodium	...	...	...	...	...	13.77
Sulphate of soda	...	...	...	...	...	37.30
Sand	...	...	...	...	...	13.36
						100.00

Nitrogen traces.

Both samples are worthless as manure.

Many samples of superphosphate, which contain either no bone whatever or but very little, are sold this season professing to be made from bone. The following case is an illustration of this fact :

Composition of a sample of superphosphate advertised as made from bone, sent by Mr. S. Browne, Brockton, near Shifnal, Salop, bought from Mr. George Dawler, Plume Works, Aston, Birmingham, at £7 per ton :


Moisture	...	...	...	...	...	11.76
Water of combination and *Organic matter...	...	...	...	...	...	25.33
Biphosphate of lime (monobasic phosphate of lime)...	...	...	...	...	...	1.69
Equal to bone phosphate (tribasic phosphate of lime), rendered soluble by acid, 2.56						

Insoluble phosphates (coprolite powder)	...	...	...	...	...	17.91
Sulphate of lime	...	...	...	...	...	28.27
Alkaline salts and magnesia (common salt)	...	...	...	...	...	5.18
Insoluble siliceous matter	...	...	...	...	...	9.86
						100.00

*Containing nitrogen56
Equal to ammonia68

Practically this bone-superphosphate contained no bone, but was a badly-made coprolite superphosphate, containing only 2½ per cent. of soluble phosphate. It would be dear at £3 3s. a ton.

Cake is often sold as genuine linseed-cake, which is

either made from inferior and undressed seed, or is mixed with other articles. The following is a good example of one of these cases. Mr. Dudfield, of Catsley, forwarded a sample of cake branded  Bewdley, genuine, price £10 & Smith, bought from Mr. Firmston, Stourbridge, 15s. per ton, and manufactured by Walker of Hull. The analysis is as follows:

Moisture	...	...	...	...	12.30
Oil	...	...	...	...	9.69
*Albuminous compounds (flesh-forming matters)	...	...	...	...	32.50
Mucilage, sugar, starch, and digestible fibre	...	...	...	...	26.16
Woody fibre	...	...	...	...	13.03
Mineral matter (ash)	...	...	...	...	7.32
					<hr/>
					100.00
					<hr/>
*Containing nitrogen	...	...	...	...	5.20

This cake was found to be made of dirty linseed, and to be mixed with earth-nut cake. A correspondence on the subject with Mr. Dudfield ensued, and the committee think it right to that gentleman and the manufacturers to publish the last letter received from him:

"Catsley, Bewdley, April 15, 1870.

"Dr. Voelker.—Dear Sir: I have to thank you for yours of the 13th inst., as also for other communications, but I have not to thank you for any information tending to lead me as to the relative value of the cake you analysed for me; and I beg to say that it is not my wish that any publicity should be given in this matter, or if it is, it must be on your own, or the Council of the Royal Agricultural Society's account—the parties I bought the cake of having amicably settled the matter with me, and the makers, Messrs. Walker and Smith, having accounted for the error, and shown every courtesy in the matter. I am, dear sir, yours truly,

"BENJ. DUDFIELD."

Another sample was forwarded by Mr. Hudson, of Castle-acre, bought of Messrs. Marsten, of King's Lynn, as genuine; linseed-cake, at £10 15s., of which the analysis is as follows:

Moisture	...	...	...	...	13.71
Oil	...	...	...	...	10.33
*Albuminous compounds (flesh-forming matters)	...	...	...	...	30.94
Mucilage, sugar, starch, and digestible fibre	...	...	...	...	22.43
Woody fibre	...	...	...	...	15.51
Mineral matter (ash)	...	...	...	...	7.00
					<hr/>
					100.00
					<hr/>
*Containing nitrogen	...	...	...	...	4.95

This cake was found to be mixed with earth-nut cake, and although it was by no means a bad feeding cake, it should not have been sold as genuine linseed-cake.

Other cases of adulteration have occurred, in some of which the Professor has been able to prevent loss to the purchasers; but the committee regret to find that many farmers are unwilling to give up the names of the dealers, resting satisfied with the settlement made in their individual cases.

It was also reported that the committee had had under their consideration some observations made at the general meeting, with reference to the possibility of experiments being carried out to a greater extent than is the case at present, and that they had requested Dr. Voelker to prepare for the next meeting of the committee a statement of what he has done in this direction during the last few years, with the view of considering with him whether any change in the present system can be advantageously adopted. This report was adopted.

GENERAL OXFORD.—Lord Kesteven reported that the committee recommended that the secretary be empowered to make arrangements for advertising the Oxford Meeting at a cost not exceeding £400, and that the secretary be instructed to communicate with the Home Office, requesting the assistance of the usual number of the A division of the London police. This report was adopted.

COUNTRY MEETING DISTRICTS.—Mr. Thompson (chairman) reported that the committee had agreed to an order of rotation to be recommended to the Council, and that

they suggested that a copy of this scheme should be sent to each member of the Council, to insure its being duly considered by the next meeting, when the committee will move its adoption. This report was adopted.

In the absence of Mr. Booth, it was moved by Mr. Shuttleworth, that the railway expenses of the Committee of Inspection at Shrewsbury, Stafford, and Wolverhampton be paid by the Society; and it was explained that this motion was brought forward in consequence of the refusal of the railway companies to grant free passes, as on former occasions. Mr. Cantrell having seconded the motion, Lord Kesteven and Mr. D. R. Davies, who were members of the committee, expressed their unwillingness to be reimbursed as an exceptional case. It was, therefore, suggested by Mr. Dent, M.P., that the resolution should be amended as follows: "That the railway expenses of the Committee of Inspection for the present and future years be paid by the Society." This suggestion having been adopted by the mover and seconder, the resolution was carried unanimously.

The Earl of Powis, in moving "that in future lists of stock prizes a class be established for mules," urged the desirability of improving the character and increasing the value of these useful animals. He quoted facts showing that a large number of them are employed on small holdings, especially in Ireland, and particularly mentioned the school at Oldcastle, to which is attached a farm of 13 acres, worked entirely by a jennet. He also mentioned the greater longevity of the mule as compared with the horse, and the probability that owners might treat their mules better if the value of the animals were more generally appreciated, as reasons why the Society should establish a class for them in future prize lists. That mules were really valuable for draught purposes and as beasts of burden was proved, he maintained, by their extensive use in Spain and other countries, and particularly by the use made of them by our own Government in the Abyssinian expedition. Mr. Dent, M.P., while agreeing with what had been stated by Lord Powis, urged that the reasons which proved that the Society ought to give prizes for mules were at least as strong in favour of their giving prizes for asses. Lord Powis, having concurred in this view, moved "That in future lists of stock prizes classes be established for asses and mules." This resolution was then seconded by Mr. Dent, M.P., and carried unanimously.

The Secretary laid before the Council the following letter, which he had received from the chief of the Veterinary Department of the Privy Council at Dublin in the course of correspondence with reference to the conveyance of cattle, sheep, and pigs, to and fro between Ireland and the Society's show-yard at Oxford:

"Veterinary Department of the Privy Council Office, Dublin Castle, May 20, 1870.

"Sir,—In reply to your communication of the 17th inst., addressed to the secretary of this department, I have the honour to inform you that there is no legal obstacle to animals going from Ireland to the Oxford Show, and returning therefrom, if the cattle or sheep, as the case may be, are accompanied on their return with a declaration and a certificate of health. There is, however, an obstacle with which the Government has, unfortunately, no power to interfere. It is caused by the steam-packet companies, principally the Dublin one, refusing to bring agricultural live stock in their vessels from Great Britain to Ireland. For any stock going to, or returning from, the Oxford Show of the Royal Agricultural Society, the greatest facilities in the power of the Government will be afforded; and on application to this department by the owners or exhibitors of stock at your approaching show, wishing the same to come on return to Ireland, and be landed at the port of Dublin, instruction will be immediately given to their owners, or agents, and to the steam-packet companies, that the Government have no objection to such animals being

lauded at Dublin, provided that they are accompanied with a certificate of health.

"Assuring you that I have received directions from the Government to afford the utmost facilities for the movement of cattle into Ireland, compatible with safety and the provisions of the law,

"I have the honour to be, sir,

"Your obedient servant.

"HUGH FERGUSON,

"I.L.M.V.S.

"To H. M. Jenkins, Esq., Secretary, &c."

The Secretary also stated that he had applied for, and obtained from the authorities at Dublin Castle, copies of the forms of declarations and certificate of health for the use of Irish exhibitors at the Oxford show, and that he had ascertained, by direct communication with the com-

panies, that although the City of Dublin Steam-Packet Company refused to convey cattle to Ireland under any circumstances, the Chester and Holyhead Company, in connection with the London and North-Western Railway Company, were prepared to convey them if accompanied by the necessary documents, mentioned in the foregoing communication from the veterinary department, properly filled up and signed by the authority appointed by the Government.

Mr. J. D. Dent, M.P., gave notice that at the next monthly council he would move—"That it is undesirable to persevere with the agricultural examinations hitherto carried out by the Society, but that in lieu thereof the Society should give medals or other premiums for agricultural knowledge in such public county schools as may apply for them, and be approved of by the Council."

THE ROYAL CORNWALL AGRICULTURAL SOCIETY.

MEETING AT LAUNCESTON.

The sixty Devons shown were the principal attraction; and, being so near to the home of the breed, it was nothing but natural to expect a good entry, particularly when the list of breeders who exhibited was seen. The first heifer under three years was Pretty Maid, a beautiful animal, though not quite perfection behind. She was, however, no doubt, an excellent specimen of the breed; and the judges had considerable difficulty in deciding whether this or the Shorthorn shown by Messrs. Hosken in Class 12 was the best in the show. It ended in the matter being referred to an umpire, who gave the prize to Messrs. Hosken. In the class for heifers under two years Mr. Burton, of Broadclyst, was victorious with an animal of his own breeding, one year and seven months old. At the recent fire the animals which this exhibitor was preparing for the various shows were much frightened, and have since suffered so much that he has been obliged to kill five of them. Mr. W. Smith, of Higher Hoofern, Exeter, had entered in some of the classes; but his animals did not arrive until after the judges had commenced their work, and they could not, therefore, compete. After the Devons came the Shorthorns, which, if they were not numerous, yet those shown were particularly good. The best Shorthorn bull was the first prize-taker in the ninth class: he had altogether a much finer and handsomer appearance than the others. Messrs. Hosken's first prize heifer in Class 12 was also very good; and, indeed, this was the one that had the contest with Mr. Farthing's Devon heifer as the best in the show. Messrs. Hosken sent nine Shorthorns, every one of which took a prize, as did others also bred in the Loggan herd. Their Penzance prize bull, second Earl of Oxford, was entered, but he died in the week previous to the show. The Herefords were very far from a good lot; and the two prize-takers in Class 13 were perhaps about the best.

Some dissatisfaction was expressed as to the judging of the sheep; but there are some exhibitors who always will object. The Leicester yearling rams were a good lot, particularly the prize-takers. The yearling ewes were of pretty good quality, but rather small. The yearling long-wooled rams were but a middling lot, and those to whom the prizes were awarded were hardly as thick through as they should have been. In the long-wooled old ram class many thought that the positions of the first and second-prize animals should have been reversed. Viscount Falmouth took the first and second prizes in all the Shropshire Down sheep; and though few were shown, yet they were a splendid lot. The Dartmoors were also a very good lot of useful sheep, and attracted a considerable amount of attention.

The show of horses was very poor, and there was great dissatisfaction at these not being on view on the first day. Some of the prizes in this section were withheld, and others have not yet been published.

PRIZE LIST.

JUDGES.—Devons and Herefords: J. S. Quartly, Molland House, Southmolton; J. Smith, Bradford Peverell, Dorchester. Shorthorns and Pigs: S. Widdicombe, Ugborough; J. K. Fowler, Aylesbury. Sheep: J. Moon, Plymouth; J. Gould, Broadclyst; G. Coaker, Plympton; B. Lee, Milton Abbott. Horses: V. Calmady, Tedcot; G. Bullmore, Newlyn East. Implements: S. Brown, Landrake; E. Elliott, Landulph; Wills, Southpetherwin.

DEVONS.

Bulls above three years old.—First prize, Viscount Falmouth, Tregothnan (Sunflower); second, W. Farthing, Stowey Court, Bridgewater (Master Arthur); third, T. Julian, Creed (Duke of Cornwall).

Bulls above two, and not exceeding three years.—First prize, Viscount Falmouth (Narcissus); second, J. Jackman, Hexworthy (Perfection); third, W. Farthing (Sir George). Highly commended: A. Parsons, Highweek, Black Torrington.

Bulls not exceeding two years.—First prize, J. Jackman; second, Viscount Falmouth; third, J. Jackman. Highly commended: H. Davey, Penhole House, Northhill.

Cows above three years old.—First prize, Rev. S. N. Kingdon, Bridgrule (Pickys); second, J. Nicholls, Altarnun; third, R. Jackman, Lifton.

Heifers not exceeding three years old.—First prize, W. Farthing (Pretty Maid); second, J. Menhenick, Wadebridge (Venus); third, J. Jackman (Belle). Commended: J. Jackman (Beatrice).

Heifers not exceeding two years old.—First prize, R. Barton, Broadclyst; second, Viscount Falmouth; third, Rev. S. N. Kingdon (Princess Ida).

SHORTHORNS.

Bulls above three years old.—First prize, R. Tremain, Treturffe, Ladoek (Towneley Grand Duke); second, H. Bradshaw, Lifton Park; third, Mr. Horswell, Headland Villa, Plymouth (General Berrington).

Bulls above two, and not exceeding three years.—First prize, J. T. Gerrans; second, Mr. Whitford, St. Erme (Telemachus).

Bulls not exceeding two years.—First prize, Messrs. Hosken and Son, Loggan, Hayle; second, T. Cardell and J. K. Martyn, Colan; third, D. Venning, Whalesborough.

Shorthorn cows above three years old.—First, second, and third prizes, Messrs. Hosken and Son.

Heifers not exceeding three years old.—First, second, and third prizes, Messrs. Hosken and Son.

Heifers not exceeding two years old.—First prize, Messrs. Hosken and Son; second, H. Bradshaw, Lifton Park; third, Messrs. Hosken and Son. Highly commended, H. Bradshaw.

HEREFORDS.

Bulls above three years old.—First prize, G. and W. E.

Lobb, Lawhitton (Werrington); second, G. and W. E. Lobb (Chief 2nd).

Bulls above two and not exceeding three years old.—First prize, W. A. Grose, Penpont, Wadebridge (Zenith).

Bulls not exceeding two years old.—First prize, J. Paull, Ruamlanhorne (Gamester); second, G. and W. E. Lobb.

Hereford cows above three years old.—W. R. Grose, Penpont, Wadebridge, second, J. Bartlett, Lifton.

Hereford heifers not exceeding three years old on 1st June, 1870.—First prize, J. Bartlett; second, J. Paull.

A special prize of £10, given by the Right Hon. Viscount Falmouth, for the best animal in the cattle classes. The judges of Devons took Walter Farthing's Pretty Maid fifth, and the Shorthorn judges Hosken and Son's heifer, which won the first prize in class 12. The Council of the Society appointed T. Oliver as umpire, and he eventually gave the prize to Hosken's heifer.

SHEEP.

Leicester Yearling Rams.—First, second, and third prizes, J. Tremain, Polsue.

Leicester Old Rams.—First and second prizes, James Tremain; third, George Turner, Branford Speke.

Leicester Yearling Ewes.—First and second prizes, J. Tremain; third, B. Parsons, Launceston.

Yearling Long-wooled Rams.—First and second prizes, W. E. Drakes, Warbstow. Highly commended: R. Corner, Torweston, Williton, Somerset.

Long-wooled Old Rams.—First prize, W. E. Drakes; second, R. Corner. Highly commended: G. Martyn, Camclford.

Long-wooled Ewes.—First prize, W. E. Drake; second, R. Clark, St. Beaudaux.

Yearling Shropshire Down Rams.—First and second prizes, Viscount Falmouth.

Shropshire Down Old Rams.—First and second prizes, Viscount Falmouth.

Shropshire Down Yearling Ewes.—First and second prizes, Viscount Falmouth; third, H. Bradshaw, Lifton Park.

Dartmoor Yearling Rams.—First prize, R. May, Grendon; second, Drew, Artiscombe.

Dartmoor Old Rams.—First prize, W. Geake, Penhelc; second, R. May, Grendon.

Dartmoor Yearling Ewes.—First prize, R. Palmer, Venn; second, Drew.

PIGS.

Boars, large breed.—Duckering and Sons, Northorpe, Lincolnshire.

Sows, large breed.—First prize, Duckering and Sons; second, J. S. Davey, Redruth.

Boars exceeding 12 months old, small breed.—First prize, R. Jackman, Lifton; second, Duckering and Sons.

Boars not exceeding 12 months old, small breed.—First prize, J. Palmer, Lewannick; second, Duckering and Sons.

Sows, small breed.—First prize, Duckering and Sons; second, R. Bickle, Lifton.

Pen of two breeding sows not exceeding 12 months old.—First prize, J. S. Davey; second, Duckering and Sons.

IMPLEMENTS.

Prizes were awarded—for single plough, to Hornsby and Sons, Grantham. Turnwrest plough that will efficiently turn the furrow against the hill, J. Davey, Crofthole, Devonport. Cultivator, grubber, and scarifier, J. Davey. Set of harrows, J. Davey. Set of seed harrows, J. and F. Howard, Bedford. Set of chain harrows, J. and F. Howard. Clod crusher or pulveriser, Beverley Iron Works, Reading. Corn drill for small occupation in hilly districts, W. Brenton (Hawkes and Spencer machine), Polthabac, St. Germans. Turnip and mangold drill for ridge or flat, depositing manure with seed, W. Brenton. General manure distributor, W. Brenton. Horse-hoe for green crops on ridge and flat, adapted to work horizontally along the side of a hill, J. Davey. Winnowing machine convertible to a blower, W. Brenton. Grass-mowing machine, Samuelson and Co., Bamberbury, and W. A. Wood, London, divide; highly commended, W. Brenton. One-horse cart for general purposes, G. Milford, Thorverton. Chaff-cutter, Lewis and Hooley, Shrewsbury (A protest entered by Messrs. Piesley and Sims, who alleged that their patent had been infringed). Grating or pulping machine, Hornsby and Sons. Corn and pulse bruiser and best oilcake crusher, Amies, Barford, and Co., Peterborough. Best and most improved collection of implements, W. Brenton; second, J. Buckingham, Launceston; third, J. Davey. Sheep-feeding hurdle rack, J. Ellaout, North Petherwin. Field-gate, — Prout, Lewannick, Launceston.

THE HADLEIGH FARMERS' CLUB AND AGRICULTURAL ASSOCIATION.

MEETING AT HADLEIGH.

At the annual Spring meeting the number of ploughs was this year unusually large, there being as many as 56, against 44 last year. In the champion class, consisting of the winners of former years, there were ten, including James Barker, the celebrated ploughman, who has sustained the renown of the ploughs of Messrs. Ransomes, Sims, and Head, all over the country. To-day Barker had to succumb to local men, but the victory for Messrs. Ransomes' ploughs was even greater than if he had won, for the winners of both first and second prizes used implements made by that firm. The judges of stock were Mr. W. Biddell, Lavenham Hall, Mr. Pettitt, Friston, and Mr. B. M. Lungley.

PRIZE LIST.

HORSES FOR AGRICULTURAL PURPOSES.

Best stallion, £2, G. Green, Norton.

Best brood mare, £2, J. Matthew, Aldham; second, £1, James Gentry, Washbrook.

Best gelding, £1, W. Rand, executor to Mr. Stubbin, Raydon; second, John Martin, Semer Hall.

Best ghaist mare, £1, P. Stearn, Elmsett Hall.

Best three years old filly, £1, C. Frost, Wherstead.

Best colt under 27 months old, £1 10s., N. Catchpole, Whitton.

Best gelding ditto, £1, S. Johnson, Lawford.

Best filly ditto, £1 10s., R. and J. Rand, Hadleigh; second, 10s., Joseph Matthew.

Best colt or gelding under 15 months old, £1 10s., P. Stearn.

Best filly ditto, £1 10s., R. Partridge, executor to E. Partridge, Layham.

Best foal, £1, Mr. Norfolk, Burstall; second, 10s., J. Gentry.

Best team of four Suffolk cart horses (mares or geldings indifferently), £3, S. B. White, Bildeston.

RIDING AND NAG HORSES.

Best stallion, 2 years old and upward (if not less than three competitors), £2, no entry.

Best heavy-weight carrying mare or gelding, not less than 15 hands high, £2, S. B. White, Bildeston; second, £1, J. Scott, Pond Hall, Hadleigh.

Best light-weight ditto, not less than 14 hands high, £1, M. Archer, Semer; highly commended, T. W. Stow, Kersey.

Best cob not extending 14½ hands high, £1, J. F. Robinson, Hadleigh; second, 10s. Josiah Matthew, Aldham.

Best pony not exceeding 13 hands high, £1, W. Kersey, Raydon; second, 10s., A. B. Woods, Hadleigh.

Best pony not exceeding 12 hands high, £1, J. Strutt; second, 10s., J. F. Robinson.

CATTLE.

Best bull of any breed, £1, N. Catchpole,

Best polled cow, £1, J. Cook, Hadleigh.

Best horned cow, £1, N. Catchpole.

Best fat beast of any age, £1 10s., Messrs. Rand; second, £1, Messrs. Rand.

Best fat steer or heifer under 3 years old, £1 5s., W. Kersey; second, 15s., R. Fidgett, Layham.

SHEEP.

Best tup of the Southdown breed, of any age, £1, Messrs. Rand.

Best shearing tup of any other short-wool breed, £1, R. Woodgate.

Best shearing tup of long-wool breed, £1, H. D. Postaus, Shelley.

Best tup of long-wool breed, of any age, £1, R. Partridge.

Best pen of three Southdown ewe hoggets, £1, R. Woodgate.

Best pen of three wether hoggets of any short-wool breed, £1, Messrs. Rand.

Best pen of three ewe hoggets of any short-wool breed, £1, Messrs. Rand.

Best pen of three long-wool wether hoggets, £1, W. Kersey.

Best pen of three long-wool ewe hoggets, £1, W. Kersey.

Best pen of ten ewes of any breed, with their lambs, £1 10s., J. Scott; second, £1, executors of I. Strutt.

Best fleece of hogget short-wool (not being a tup), 15s., W. Kersey.

Best fleece of hogget long wool ditto, 15s., Messrs. Rand.

PIGS.

Best boar, £1, C. Frost; second, 10s., J. Vinco.

Best breeding sow, £1, W. Nunn; second, 10s., J. F. Robinson.

The dinner took place at four o'clock in the Town Hall, Sir Charles Rowley in the chair.

SALE OF THE LATE MR. W. H. S. ADCOCK'S HERD OF SHORTHORNS.

AT FARNDISH, ON TUESDAY, MAY 24, 1870, BY MR. JOHN THORNTON.

There were probably few men more popular in the county of Northampton or more respected at the ring-side than the late Mr. Adcock, whose death occurred in February last. His sound judgment, coupled with a quiet unassuming but cheerful disposition, endeared him to a very large circle of acquaintance, and, as was well known, for years past he had set his heart on having a fine herd of cattle. A number of those first selected were sold off at Mr. Longland's sale in 1868; with the remainder, some of which had been purchased at the Havering Park, Preston Hall, and Milcote sales, he started what might as yet be called merely the germ of a first-class herd. Affliction fell heavily upon him in the beginning of 1869, and although he was seen at the Royal and Highland Society's meetings in a Bath-chair, it was remarked that his prophecy of having but a few years to live had well-nigh been fulfilled. We were accordingly fully prepared to see at the little Irchester Station a very strong muster of the well-known Shorthorn fraternity on the sale-day. Mr. Sartoris, whose estate is but a mile or two from Farnish, had taken great interest in the stock, and entertained a large party the night previously.

Mr. Gandem, the acting executor, fully kept up his old friend's hearty and bountiful hospitality. A magnificent champagne lunch was brought from the George at Northampton, at which Mr. Sartoris, who presided, passed a very happy eulogium on his late friend and neighbour Mr. Adcock, and proposed that his memory should be drunk in silence. The company then adjourned to the ring, which was well packed. In the sale waggon were Lord Feversham, Mr. Foster, Mr. Cox, Mr. Ranson, Mr. Blackwell, Mr. Woodward, Mr. Gandem, and Mr. Baxter, well remembered at the Towneley ring, when bristling over with bottles, he occupied the box-seat, and was often whipper-in. Opposite were the brothers Graham, Mr. Sheldon, Mr. Clayden, Mr. C. Howard, and some locals, whilst Mr. Tippler, Mr. Walker, and others from Essex, took the adjoining waggon. The Northamptonshire men mustered round the ring to the right and left of the auctioneer. On the right were Captain Oliver, Mr. Sartoris, Mr. Beasley, Capt. Eden, Mr. Gwyn Wallis, Mr. Lynn, Mr. Beard, Mr. Wortley, and others were congregated, whilst, to the left were Mr. Dormer's and Mr. Strickland's agent Messrs. Winnall, Canning, Hamer, Purkis, and a large party from Warwickshire. The county men gathered thick at the gates, determined to see the entrance and departure of every lot. The stock had been viewed all the morning in the fields and yards, but there was a general feeling that they had not had much doing and were shown in a state upon which they would, with a little good keep, greatly improve. Lady Knightley 2nd, with her sweet head, her graceful form and fine hair and colour, was the general favourite, and a knot were always around her; and notwithstanding her seven months dead calf she looked healthy but thin. Catalani was admitted to be but very so-so for a pure Charmer, and her doubtful condition as a breeder for the last eighteen months made her a speculative lot, though there were a good many bids for her; her heifer Claribel a roan, was very small for her age. Heartsease, a large fine cow, wanted elegance; and her heifer, Hepatica, sweet and

nice-looking, went apparently cheap to Messrs. Graham. Charmer 2nd was taken out of the field and calved during the luncheon a red bull-calf. It was rather a novelty to see the biddings going on and no lot in the ring. The size and quality of Adeline was greatly admired, and, full of calf, seemed a cheap purchase for Mr. Blackwell. Fanny 15th, as tame as a dog, followed those who patted her, about. She had a deep, but narrow frame, sweet docile head, and fine hair and handling; 50 gs. seemed no great price for so good a cow, and we were pleased to see Mr. Owen Wallis get her. The young animals were nice, and gave great promise of what the herd might have been had the owner lived: they sold well. Janette, a fine red J. calf, made 55 gs., from Mr. Beasley, with whom the family is associated. When he bought the company cheered, and when Mr. Sartoris gave the highest price for the Lady Knightley 2nd, the cheers were "continued." He had already a very fine herd of Knightley blood, and it seemed to give great satisfaction that he had taken the best "Bates upon Knightley" lot to join the Rushden herd. Miss Barrington, a fine heifer of good quality, went for 90 gs. to Mr. Foster, and Mr. Sartoris bought her dam cheap enough for 27 gs.

Twelfth Duke of Oxford was low in condition, but still very useful and remarkably quiet with his kindly head and long quarters though somewhat deficient in middle and girth; he was a noble looking old bull, and Mr. Baxter and Mr. Dormer's agent, Mr. Gardener, had a good fight up to 145 gs. Second Duke of Waterloo, rather plain and a little wicked went at butcher's value, but he got some good calves, indeed, better than Oxford's; and Baron Geneva, the herdsman's pet, for his great feeding properties and quiet disposition, went cheap enough to Aberdeenshire, though several of the countymen bid well; but not quick enough. The sale finished soon after four to the satisfaction of every one concerned; the average of £49 3s. for the entire herd, and £50 6s. for the cows being considered, as it was, a remarkably good sale.

COWS AND HEIFERS.

Miss Banks, red and white, calved May 28, 1856, by Duke of Bolton (12738), out of Bonquet by Garrick (11507).—F. Sartoris, Rushden Hall, 27 gs.

Adeline, roan, calved September 16, 1859, by Sir Colin Campbell (16961), out of Albreda by Earl of Dublin (10178).—R. Blackwell, Tansley, 61 gs.

Jantja 5th, roan, calved November 21, 1860, by Yeoman (17257), out of Jantja by Lycurgus (7180).—T. Pashler, Addington, 28 gs.

Patience, roan, calved April 9, 1861, by Waterloo Duke (21077), out of Pearl by Paucake (15043).—W. Strickland, Cokethorpe Park, Witney, 34 gs.

Fairy Princess, roan, calved October 30, 1863, by Hayman (16245), out Fairy by St. Patrick (12038).—J. H. Blundell, Woodside, Luton, 41 gs.

Heartsease, red and white, calved November 4, 1863, by Chanter (19423), out of Floret by Douglas (12714).—C. C. Dormer, Courteenhall, 80 gs.

Pearly, red, calved February 16, 1864, by Grand Duke 5th (19875), out of Pearl by Hopewell (10332).—J. W. Larking, Ashdown House, Sussex, 45 gs.

- Faucy 15th, roan, calved June 6, 1864, by Fugleman (14580), out of Fanny 7th by Satan (16910).—O. Wallis, Overstone Grange, 50 gs.
- Charmer 2nd, roan, calved January 16, 1865, by Grand Duke 4th (19874), out of Charmer by Mainstay (16490).—C. C. Dormer, Courteenhall, 100 gs.
- Catalani, red and white, calved April 4, 1865, by Touchstone (29986), out of Cornelian by Mameluke (13289).—T. Purkis, West Wrattling, Cambridgeshire, 55 gs.
- Lady Knightley, roan, calved February 13, 1866, by Sixth Duke of Airdrie (19602), out of Maidenhair by Mocassin (18406).—J. W. Larking, 63 gs.
- Bonny Oxford, roan, calved March 24, 1866, by Twelfth Duke of Oxford (19633), out of Bonny Lass by Jemmie Lind (18105).—T. G. Curtler, Worcester, 41 gs.
- Jocosa, red and white, calved April 11, 1866, by Twelfth Duke of Oxford (19633), out of Jantja 5th by Yeoman (17257).—J. Gross, Wollaston, 51 gs.
- Fairy Oxford, red roan, calved June 28, 1866, by Twelfth Duke of Oxford (19633), out of Fairy Princess by Hayman (16245).—W. Strickland, Cokethorpe, 33 gs.
- Duchess of Bedford, roan, calved July 24, 1866, by Twelfth Duke of Oxford (19633), out of Pearly by Grand Duke 5th (19875).—B. Baxter, Elslack Hall, Yorkshire, 34 gs.
- Lady Knightley 2nd, roan, calved February 10, 1867, by Grand Duke 4th (19874), out of Maidenhair by Mocassin (18406).—F. Sartoris, Rushden Hall, 140 gs.
- Lady Essex 2nd, roan, calved December 13, 1867, by Costa (21487), out of Lady Essex, by Grand Duke of Essex (17995).—S. Burchuall, Burton-on-Trent, 28 gs.
- Miss Barrington, red and a little white, calved February 9, 1868, by Twelfth Duke of Oxford (19633), out of Miss Banks, by Duke of Bolton (12735).—J. P. Foster, Killow, 90 gs.
- Julianna, roan, calved March 3, 1868, by Twelfth Duke of Oxford (19633), out of Jantja by Yeoman (17257).—Capt. Eden (for the Duke of Buccleuch), Boughton House, Kettering, 43 gs.
- Claribel, roan, calved May 7, 1868, by Twelfth Duke of Oxford (19633), out of Catalani by Touchstone (20986).—H. J. Sheldon, Brailes, Warwick, 100 gs.
- Fairy Oxford 2nd, roan, calved June 15, 1868, got by Twelfth Duke of Oxford (19633), out of Fairy Princess by Hayman (16245).—Capt. Eden, 47 gs.
- Hepatica, roan, calved June 30, 1868, by Potentate (22537), out of Heartsease by Chanter (19423).—G. Graham, Yardley, Birmingham, 50 gs.
- Albreda 2nd, roan, calved August 18, 1867, by Twelfth Duke of Oxford (19633), out of Albreda by Earl of Dullin (10178).—H. J. Sheldon, Brailes, 72 gs.
- Lady Knightley 3rd, roan, calved October 5, 1868, by Twelfth Duke of Oxford (19633), out of Lady Knightley by 6th Duke of Airdrie (19602).—Capt. Eden, 30 gs.
- Primula, red and white, calved November 25, 1868, by Twelfth Duke of Oxford (19633), out of Patience by Waterloo Duke (21077).—B. Baxter, 30 gs.
- Countess Spencer, roan, calved March 16, 1869, by Grand Duke 4th (19874), out of Fairy Oxford by Twelfth Duke of Oxford (19633).—Capt. Eden, 37 gs.
- Faithful, white, calved May 24, 1869, by Twelfth Duke of Oxford (19633), out of Fairy Princess by Hayman (16245).—W. Cox, Brailsford, Derbyshire, 18 gs.
- Penelope, roan, calved May 28, 1869, by Twelfth Duke of Oxford (19633), out of Pearly by Grand Duke 5th (19875).—H. Robinson, Leyburn, 17 gs.
- Janetta, red, calved July 27, 1869, by Second Duke of Waterloo (23800), out of Jocosa by Twelfth Duke of Oxford (19633).—J. N. Beasley, Pitsford Hall, 55 gs.
- Lady Knightley 4th, white, calved August 21, 1869, by Twelfth Duke of Oxford (19633), out of Lady Knightley by 6th Duke of Airdrie (19602).—A. Winnall, Hlawthorn, Ledbury, 46 gs.
- Bonny Waterloo, roan, calved October 18, 1869, by Second Duke of Waterloo (23800), out of Bonny Oxford by Twelfth Duke of Oxford (19633).—F. Wythes, Ravensden House, Bedford, 40 gs.
- Pansy, red and white, calved October 25, 1869, by Twelfth Duke of Oxford (19633), out of Patience by Waterloo Duke (21077).—B. Baxter, 28 gs.
- Fruitful, roan, calved March 5, 1870, by Twelfth Duke of Oxford (19633), out of Faucy 15th by Fugleman (14580).—B. Tomlinson, Lincolnshire, 27 gs.
- Farndish Lass, red, calved March 26, 1870, by Second Duke of Waterloo (23800), out of Fairy Oxford by Twelfth Duke of Oxford (19633).—R. Wood, Clapton, 17 gs.
- Favorita, roan, calved April 19, 1870, by Twelfth Duke of Oxford (19633), out of Fairy Princess by Hayman (16245).—W. H. Woodhouse, Hertfordshire, 30 gs.
- White Legs, red and white, calved December 3, 1865, by Twelfth Duke of Oxford (19633), out of White's Old Cow. Captain Wetton, Northampton, 28 gs.
- Poddington Lass, red, calved January 14, 1867, by Marquis of Airdrie (26834), out of White's Old Cow.—D. M. Brown, Clipston, 34 gs.
- Tiny, red and white, calved in January, 1868, by Twelfth Duke of Oxford (19633), out of White's Old Cow.—Captain Wetton, 21 gs.
- A bull calf, red and white, calved March 28, 1870, by Baron Geneva (25568), out of Tiny.—Captain Wetton, 7 gs.
- A milking cow, giving three gallons of milk daily.—Hon. C. W. Fitzwilliam, 26 gs.

BULLS.

- Twelfth Duke of Oxford (19633), roan, calved September 26, 1862; by Grand Duke of Wetherby (17997), out of Oxford 15th by Fourth Duke of York (10167).—C. C. Dormer, 145 gs.
- Second Duke of Waterloo (23800), roan, calved December 28, 1865; by Lord Lally (22161), out of Waterloo 28th by Grand Duke 3rd (16182).—W. Tippler, Roxwell, Essex, 36 gs.
- Baron Geneva (15568), roan, calved January 4, 1866; by Duke of Geneva (19614), out of Adeline by Sir Colin Campbell (16961).—A. S. Blacklaw, Aberdeen, 70 gs.
- Oxford Barrington, roan, calved January 26, 1869; by Twelfth Duke of Oxford (19633), out of Miss Banks by Duke of Bolton (12735).—T. Johnson, Warwickshire, 41 gs.
- Duke of Northill, white, calved March 19, 1869; by Baron Geneva (25568), out of Jantja 5th by Yeoman (17257).—W. Jervis, Woodford, 30 gs.
- Fawsley Oxford 2nd, red and white, calved March 19, 1869; by Twelfth Duke of Oxford (19633), out of Anemone by Buckingham (17471).—Captain Wetton, 50 gs.
- Baron Russell, roan, calved September 1, 1869; by Grand Duke 4th (19874), out of Duchess of Bedford by Twelfth Duke of Oxford (19633).—Mr. Gadsby, Lowick, 32 gs.
- Earl of Oxford, roan, calved in October, 1869, by Twelfth Duke of Oxford (19633), out of Roan Princess by Grand Duke 3rd (16182).—Mr. Henry, Norfolk, 30 gs.
- Earl of Waterloo, roan, calved February 5, 1870, by Second Duke of Waterloo (23800), out of Heartsease by Chanter (19423).—W. George, Gayton, 20 gs.
- Duke of Thornville, white, calved March 10, 1869, by Twelfth Duke of Oxford (19633), out of Fanny 16th by Fugleman (14580).—W. H. Walker, Brentwood, Essex, 26 gs.
- Baron Wollaston, roan, calved March 6, 1870, by Second Duke of Waterloo (23800), out of Jantja 5th by Yeoman (17257).—J. Woodward, Worcestershire, 25 gs.
- Baron Farndish, red and white, calved March 15, 1870, by Twelfth Duke of Oxford (19633), out of Miss Banks by Duke of Bolton (12738).—Lord St. John, 17 gs.

THE LATE MR. W. G. NIXEY'S DEVON HERD, AT UPTON COURT, SLOUGH.—BY MR. JOHN THORNTON.—The lots consisted of four bulls, 29 cows and heifers, and 29 fat oxen, steers, and heifers. The highest price obtained was for a cow Young Hebe, with a calf six months old, which together realised 117 guineas, the cow fetching 36 guineas and the calf making 81. Young Hebe, which was bred by Lord Portman, and afterwards purchased by Mr. J. A. Smith, of Bradford Peverell, passed into the hands of the late Mr. W. G. Nixey at the sale of Mr. Smith's stock at Dorchester in February, 1869. Several other animals bred by Mr. Smith were also disposed of, including a steer, which brought 47 guineas; another, a two-year-old, realised 28 guineas; whilst a number of yearling steers brought from eleven guineas to 30 guineas a-piece. Young Dewdrop, bred by Mr. W. Smith, of Exeter, realised 40 guineas. A calf, bred by Mr. Nixey, was knocked down at 30 guineas, and a bull, Prince of Wales, bred by Mr. John Quartly, was sold for 30 guineas. The total proceeds amounted to £1,330.

PHILADELPHIA BUTTER: HOW IT IS MADE.

"Philadelphia print" is known in the central cities of the United States as butter unsurpassed for sweetness, solidity, and golden colour. It always commands a fancy price, and is ever sought for with an avidity that makes its sale a pleasure rather than a labour. Excellent butter is found elsewhere, as in New England, New York, and northern Ohio; but inferior qualities are the rule in the dairy sections proper, which these exceptions only prove; while in a large portion of the West and South there is very little superior butter, a considerable quantity that is passably good, and a large amount not fit to eat, of less value for cooking than good lard, and unworthy the repute of the American farmer. Greater advances have of late been made in cheesemaking than in the art of butter-making. The factory system has secured uniformity with positive progress in processes and knowledge of principles. Butter dairies are individual and isolated, and excellence in their product is the result of peculiar care in the manager, and special adaptation to his business. It is of the utmost importance that the very best modes of manufacture should be understood; that the dairyman and the farmer's wife who cares for the smaller dairy of the ordinary farm should compare their processes (which they may now deem best because they know no other better) with those of model establishments, and learn to stamp a higher excellence upon the yield of their dairies. The difficulty of obtaining really good butter in the city markets appears to be increasing, probably from a growing fastidiousness of butter eaters, as well as from the increasing disproportion in numbers of consumers and producers. This fact gives urgent and immediate importance to efforts for improvement. The best Philadelphia butter comes mainly from Chester, Lancaster, and Delaware counties. A committee of New York gentlemen lately visited several of the dairies of Chester county, Pennsylvania, as representatives of an incipient organization, the "American Jersey Cattle Club," designed to facilitate the work of publishing such a record of importations and pure breeding as should secure the integrity of this famous dairy breed. The following extracts from their report, written by George E. Warring, jun., begins with a description of the dairy of Samuel J. Sharpless, of Street Road station, in Chester county, whose cows are all thorough-bred Jerseys: The milking-house is a light wooden structure, with so many open doors and windows that it is hardly more than a shed. In the winter it is closed up, and used as a stable for young stock. In size it is about 22 feet by 36, with a row of stanchions on each side, and with mangers in which a little bran is put at milking time. Each cow has her own place, with her name, age, and pedigree on her own manger, and she always goes to it as though she could read. Their names have been put up in the order in which they come from the pasture, the "master" cow entering first, and the least plucky last. The milking is done by women, the same one always milking the same cows, and it is done rapidly and quietly, no unnecessary talking and no skylarking being allowed. We measured "Niobe's" yield, and found it to be 11 quarts (she gave 9 the next morning, making it 20 quarts for the two milkings)—not bad for a butter-making Jersey. The others gave less (the smallest not more than 8 quarts at two milkings); but the whole herd of 18 cows could not have given less than 200 quarts a-day, and this of milk that yields over 20 per cent. of cream. Near by the milking-house is the "spring-house," about 24 feet long by 18 feet wide, built of stone, with its foundations set deeply in the hill side, and its floor about 4 feet below the level of the ground at the down-hill side. The site is that of a plentiful spring, which is allowed to spread over the whole of the enclosed area to the depth of about three inches above the floor of the oak laid on sand or gravel. At this height there is an overflow by which the water passes to a tank in an open shed at the down-hill end of the house. On the floor of the spring-house there are raised platforms or walks to be used in moving about the room, but probably three-quarters of the space is occupied by the steady-flowing spring water. The walls are about ten feet high, and at the top, on each side, are long, low

windows, closed only with a wire cloth, which give circulation of air at the upper part of the room. The milk is strained into deep pans of small diameter, that are kept well painted on the outside, and are provided with bails, by which they are handled. The depth of the milk in the pans is about three inches, and they are set directly upon the oak floor, the water, which maintains a temperature of about 55 degs. Fahrenheit, surrounding them to about the height of the milk. The cream is taken off after twenty-four hours, and is kept in deep vessels having a capacity of about twelve gallons. These vessels are not covered; and as the room is scarcely warmer than the water, the cream is kept at about 58 degs. or 59 degs. until it is put into the churn.—*Churning*: The churn is a large barrel (balging only enough to make the hoops drive well), with a journal or bearing in the centre of each head, so that it may be revolved by horse-power. Thus barrel has stationary short arms attached to the inside of the staves, so arranged as to cause the greatest disturbance of the milk as it passes through them in the turning of the churn. At one side is a large opening secured by a cover that is screwed firmly into its place—this is the cover or lid of the churn. Near it is a hole, less than an inch in diameter, for testing the state of the churning and for drawing off butter-milk: this is closed with a wooden plug. The churning lasted about an hour, at the end of which it was necessary to add a little cold milk to cause the butter to gather. Thus being secured, and the butter-milk drawn off, cold water was twice added, a few turns being given each time to the churn, and when the last water was drawn off it came nearly free of milkiness. A crank was then put on to an arm of the churn, the horse-power thrown out of gear, and a gentle rocking motion caused the butter to be collected on the lower side, and directly over the small hole, through which the remaining water escaped. It was left in this condition about two hours. After breakfast we returned to see the working of the butter.—*The Butter Worker*: In one corner of the spring-house stands the butter-worker, a revolving table about three feet in diameter. The centre of this, for a diameter of twelve inches, is an iron wheel with a row of cogs on the upper side of its rim. From this rim to the raised outer edge the table (made of wood) slopes downward, so that the butter-milk as worked out is passed into a shallow groove, and is carried away through a pipe which discharges into a pail standing below. Over the sloping part of the table there works a corrugated wooden roller, revolving on a shaft that is supported over the centre of the table, and has a small cog-wheel that works in the cogged rim of the centre wheel, and causes the table to revolve under the roller, as this is turned by a crank at its outer end. Of course the roller is larger at one end than the other, so as to conform to the slope of the table, and its corrugations are very deep, not less than two inches at the larger end. Supported on each end of the roller, and on both sides, are bevelled blocks which, as the table revolves, force the butter from each end towards the centre of the slope. About 20 lbs. of butter is now put on the table, and the roller is turned, each corrugation carrying through a long narrow roll, which is immediately followed by another and another, until the whole table is covered. The roller does not quite touch the table, and there is no actual crushing of the particles. The bevelled blocks slightly bend these rolls and crowd them towards the centre of the sloping part, so that when they reach the roller they are broken in fresh places, and by a few revolutions are thoroughly worked in every part.—*Final Processes*: Then follows a process that was new to all of us—the "wiping" of the butter. The dairyman turning one roller backward with the left hand, so that the butter came through at the right hand side, presses upon every part of it a cloth which has been wrung dry in the cold spring water, and which he frequently washes and wrings out. This is continued until not a particle of water is to be seen in the butter as it comes from the roller, to which it now begins to adhere. If there is any secret in the making of Philadelphia butter this is it; and it has much to do with the uniform waxiness of texture,

whether hard or soft. After this, the butter is salted (an ounce of salt to 3 lbs. of butter), still by the aid of this machine, and any lurking atom of moisture is in this way prevented from becoming a cause of rancidity. When the salt is thoroughly worked through the whole mass the butter is removed to a large table, where it is weighed out and put up in pound prints. The working, wiping, and salting of over 100 lbs. of butter occupied about an hour; and before 10 a.m. the entire churning, beautifully printed, as fragrant as the newest hay, and as yellow as pure gold, such butter as only Jersey cream will make, was deposited in large tin trays and set in water to harden. The next morning it was wrapped in

damp cloths, each pound by itself, put in a tin case, each layer having its own wooden shelf, with two compartments of pounded ice to keep it cool, and, surrounded by a well coopered and securely locked cedar tub, was sent to the Continental Hotel, where we found it on our return as delicious as when it left the farm. It is very difficult to describe any process in which so much depends on the judgment of the operator; and the writer hardly hopes for more than that his example will stimulate others who are interested in the subject to examine for themselves the daily operations of this interesting and beautiful region for butter-making.—*Boston Cultivator.*

THE CENTRAL CHAMBER OF AGRICULTURE.

A Council Meeting of the Central Chamber of Agriculture was held on Tuesday, May 31, at the Salisbury Hotel, Colonel Tomline, M.P., presiding over about twenty-five members.

A communication was read from the Cambridgeshire Chamber relating to occupation roads, the object in view being to enable occupiers of land lying on either side of an occupation road to make arrangements among themselves for securing the repair of the road in such a manner as to bind their successors.

Mr. HODSOLL moved: "That the subject is of sufficient importance to be worthy of consideration by the Government in connection with any general road bill that they may hereafter introduce."

Mr. C. S. READ, M.P., in seconding the motion, observed that such an alteration in the law was greatly needed in a considerable portion of the fen district of Cambridgeshire bordering on Norfolk.

The motion was then agreed to.

The following resolution of the Warwickshire Chamber, which had been forwarded for submission to the Council, was read: "That this Chamber regrets to find in the Government Turnpike Acts Continuance Bill now before Parliament that trusts, with toll income amounting to nearly £200,000 (£11,183 of which is in the county of Warwick), are placed in the abolishing schedules of the Bill. The Chamber had hoped from Mr. Knatchbull-Hugessen's speech at the Central Chamber on the 5th of February that the Government were preparing to deal with the whole subject of roads at the first convenient opportunity, and therefore trusted that the annual Continuance Act would not be made the vehicle for shifting the burden of the repairs of the turnpike roads from the users thereof to the adjacent payers of rates levied upon real property alone until a revision of the incidence of local taxation had been inquired into and readjusted. It is also resolved that the Society send a copy of the above resolution to Sir Massey Lopes, Chairman of the Local Taxation Committee of the Central Chamber, and to the M.P.'s of the counties, cities, and boroughs, requesting them to give their strenuous opposition to the Bill, unless the abolishing schedules are abandoned."

Mr. CALDECOTT (Warwickshire Chamber), in moving that this communication be received, said he felt certain that everyone who heard the speech delivered by Mr. Knatchbull-Hugessen in that room a few weeks ago, went away fully satisfied that the abolishing schedules would not be brought forward in Parliament until a general measure was proposed; yet not only were those schedules retained in the Bill, but there was another section—the 10th—which militated very much against the interest of the ratepayers; that section enacting that wherever any turnpike had been abolished within the last seven years, or should be abolished in the carrying out of the Bill, if there were a highway board, the roads should be repaired out of the common fund of that board. If that Bill passed, where there was no highway board, the injustice which had been so much complained of would be perpetuated, and the parishes would each have to repair their portion of the road on which the turnpike had been abolished. It was, in short, the old story of real property alone being taxed for the maintenance of highways (Hear, hear).

Professor BUND read a resolution passed by the Worcestershire Chamber on the previous Saturday in harmony with

that of the Warwickshire Chamber. It was felt in Worcestershire, he said, that the Government were acting unjustly in proposing to abolish trusts before they had brought in a comprehensive road measure.

Mr. BEACH, M.P., said if he regarded the Bill as a permanent measure establishing a system for all future time he should oppose it; but he believed it was only intended to be temporary. The clause which provided that where a turnpike had ceased to exist, the burden of maintenance, instead of falling upon the respective parishes through which it passed, should be thrown on the highway fund, struck him as being very fair indeed. Parishes, through which a turnpike road passed, were in many cases no more in need of the road being kept in good repair than other parishes. No doubt it was a great grievance that so many turnpikes should be abolished, and they must press upon the Government the necessity of introducing as early as possible a comprehensive measure, so that all roads and all the various interests connected with them might be placed on a fair and proper footing. The local taxation question was extremely important in reference to that subject, and he agreed with the Warwickshire Chamber that it was most unfair to throw the burden of repairing roads solely upon the owners of real property.

Mr. WHITAKER (Worcestershire Chamber) did not agree with the last speaker with regard to the character of the Government bill. It seemed to him a deceitful measure from beginning to end (Hear, hear). Professing to be a "continuance" bill, it was in fact a discontinuance bill; and, moreover, it tended to set one road district against another (Hear, hear). He contended that if the Government wished to act equitably they would propose to continue all existing trusts until a good comprehensive measure had been laid before Parliament (Hear, hear).

The motion was then adopted.

Mr. A. FELL, M.P., read the report from the Local Taxation Committee: "The Local Taxation Committee, in presenting their report, beg to state that at the request of the Central Chamber of Agriculture they have taken into consideration a communication from the East Kent Chamber on the subject of the property-tax, which was read at the last meeting of the Council on the 3rd inst. The question is one of large and wide importance, and refers to imperial rather than local taxation; and as the time and attention of the Local Taxation Committee are at present fully occupied with their more immediate duties, they would leave it for discussion on some occasion at a general meeting of the Council of the Central Chamber of Agriculture. The committee also beg to report that they have made arrangements for holding a public meeting at Taunton during the exhibition week of the Bath and West of England Agricultural Society. The committee also remind the Central and local chambers that a meeting on the subject of local taxation will be held at Oxford during the exhibition week of the Royal Society in July next. The committee would also call the attention of the members of the Central and provincial chambers to the Turnpike Acts Continuance Bill, 1870, which has already passed the second reading in the House of Commons, and which, if it becomes law, will place another serious additional charge of £195,773 annually on the local rates.

Mr. WHITAKER, in moving that the report be received and adopted, urged the necessity of the various local chambers of

agriculture liberally supporting the Local Taxation Committee peculiarly. It was, he observed, absolutely essential to bring before the public generally the gross injustice which was done to the landed interest by heaping upon it burden after burden. What was now proposed by the Government with regard to turnpike trusts was another nail in their coffin (laughter). They were driven from pillar to post, and where they were not "abolished" they were oppressed. They should earnestly solicit all their friends in the House of Commons to be in their places whenever it was proposed to impose any additional burden on land, and to show that they were united and determined on that point. All agriculturists wanted was that all kinds of property should contribute alike.

Mr. GENGE ANDREWS in seconding the motion said the total cost of repairing the roads of this country was about £1,000,000 per annum, in addition to which there was an aggregate debt of £3,600,000, including interest, to be provided for. Mr. HUGGESS stated distinctly that the Government had no intention of throwing the burden upon the Consolidated Fund, and if that were the case it would have to be provided for by means of the poor-rate assessment. The Bill before Parliament included the abolition of about 12 per cent. of the existing turnpike trusts, and it seemed to him as if one object of the Government were to reduce the trusts within narrow limits and thus diminish the difficulties of future legislation (Hear, hear). The agricultural members in the House of Commons were much too Conservative (laughter); they acted too much on the gentle principle. How did members on the Liberal side of the House act with regard to the Cattle Bill of the late Government? Night after night a few of them resisted a measure which would have prevented the introduction of cattle plague in future, and the Bill was ultimately thrown out through the persistence of a small number of members backed by Mr. Gladstone (Hear, hear). He should like to see rather more vigorous action on the part of their own friends in the House of Commons. If the views of the Central Chamber of Agriculture were thoroughly urged by those gentlemen in Parliament their speeches would be reported in the daily newspapers which circulated among all classes, and would produce a much greater effect than speeches delivered in that room which were only reported in the *Chamber of Agriculture Journal*.

Mr. C. S. READ, M.P., said he had noticed that the proceedings of that Chamber were, until a very few months ago, much better reported in the *Mark Lane Express* and in *Bell's Weekly Messenger* than in the *Chamber of Agriculture Journal* (Hear, hear). With regard to the course which Mr. Andrews thought the agricultural members should pursue in the House of Commons he could assure him that, little weight as they might have now, they would have much less if they were to adopt the sort of factious opposition which he recommended (Hear, hear). That course might sometimes have been exceedingly successful when followed by a few clever talking members; but, generally speaking, agricultural members had not the gift of the gab (laughter); and he did not think they would succeed in such a course. He could assure Mr. Andrews that the agricultural members in the House of Commons did try to do their duty, although perhaps they were not exactly as successful as they could wish, and had certainly not acted in the manner which had been shadowed out by that gentleman (Hear, hear).

Mr. F. KNIGHT, M.P., observed that if agricultural members were supported by a larger number of agriculturists on special occasions they would perhaps have greater weight in the House of Commons. If, for example, when an agricultural deputation went to Downing-street, it were 500 strong, that might cause the voice of such members to be better listened to.

Mr. HENEAGE, M.P., considered it a great mistake to treat a question like that of turnpike roads as if they were merely farmers' questions. It was now proposed to inflict an additional burden on rate-payers for education as well as for highways, and all classes were of course interested in such matters. He quite agreed with Mr. Read that a factious course would not do in the House of Commons (Hear, hear); but at the same time he concurred with Mr. Andrews as to the importance of increased publicity with regard to the views of agriculturists. The Lincolnshire Chamber, of which he was a member, regarded local taxation as the most important question of the day, and had recorded its opinion to the effect that

the Central Chamber should devote special attention to that subject.

Mr. BEACH, M.P., said as regarded the course which agricultural members should pursue in the House of Commons, the case cited by Mr. Andrews showed how a determined opposition on the part of a few members might prevail against a weak Government; but it should be recollected that the present Government was not a weak one (Hear, hear). When the cattle plague question was before Parliament the members and supporters of the present Government were in opposition, and were dealing with a weak administration; and the agricultural members would have lost their influence by pursuing since that time such a course as was pursued by others then. He believed that an appeal to the good sense and right feeling of the country would lead to satisfactory results (Hear, hear).

Mr. WEBB (Worcestershire Chamber) observed that four noblemen in his county had subscribed to the funds of the Local Taxation Committee.

The motion was then put and carried.

A communication was read from the Council of the International Decimal Association proposing a joint committee in relation to uniformity of weights and measures.

Capt. CRAIGIE gave a brief account of the recent discussion of the subject at a meeting of the Society of Arts.

After a short discussion, the following were, on the motion of Mr. T. Willson, seconded by Mr. Bennett, requested to act as members of the proposed joint committee: Col. Tomline, M.P., Mr. C. S. Read, M.P., Mr. A. Pell, M.P., Mr. R. Jasper More, Mr. R. Varden, and Mr. Clarke.

The Council next proceeded to consider the question of the game laws and the proposed legislation thereon, resolutions relating to the subject having been prepared by the business committee.

Mr. STORER (Nottinghamshire Chamber) moved the following: "This Council, while declaring that an excessive preservation of ground game is incompatible with good farming, disapproves of any legislation on the subject that would interfere with freedom of contract between owners and occupiers." He said that farmers in his county lamented very much the extent of this evil, principally resulting from the false ideas with respect to game which had prevailed of late years among men who called themselves sportsmen, and under the influence of which the battue system had been carried to such a great extent. In many cases extreme hardships were, as they all knew, inflicted upon tenants by the excessive preservation of game; but of late years an improved feeling had existed among many landlords on that subject, and in some cases, particularly on large estates, where game was formerly preserved by the owner of the estate it was now given to the tenants. In his Chamber there had been great difficulty in organising any movement on that question lest it should foster antagonism between landlord and tenant—antagonism which, in establishing the Chamber, they were anxious to do away with. While they deprecated and regretted the excessive preservation of ground game, they thought the matter should be left in a great degree to the good feeling which was increasing on that subject. They had no wish to do away with the doctrine of political economy, which allowed every man to a certain extent to do as he liked with his own; they did not wish to restrict by legislation any landlord in using his land as he thought best. When a landlord was addicted to excessive preservation of game, it was pretty well known that such was the fact, and those who took a farm under such circumstances must be aware that they were making a very bad bargain. They (the Nottinghamshire Chamber) would be sorry to interfere with freedom of contract between owners and occupiers. That freedom seemed to them very important; and if legislation went on as it had done, they would soon have Parliament legislating for the rotation of crops. He had seen in the Isle of Wight a farm entirely devoted to the breeding of rabbits, but it was wired round (Hear, hear). That question could not be treated in reference to the national wants, for nearly all the nation's wants were now abundantly supplied from abroad. Even if attempts were made to interfere with freedom of contract by law they would prove futile, for the competition for land was so great that every tenant would waive his right in favour of his landlord. The great object of the Central Chamber should, he thought, be to bring the influence of the

whole body of the landed interest of the country into one focus to bear upon Parliament. It did not do anything which would tend to alienate landlords from occupiers. They were joint partners in the same concern, and though the landlord might be a sleeping partner he formed the most material part of the stock-in-trade.

Mr. G. SMYTHIES, in seconding the resolution, said he thought it was a very sad thing if the tenant farmers of this country could not take care of themselves. He did not believe they had the least inclination to be legislated for or protected by arbitrary power; and if they could not take care of themselves, it was quite time they learned to do so.

Mr. DANIEL LONG said he thought that it was game that was protected by Act of Parliament (Hear, hear). In his opinion the game laws ought to be expunged altogether. Game was very detrimental to farming; and if it was to be preserved at all, it should be kept quite apart from farms and enclosed in covers. By eating up the crops, as it had done all over the kingdom, it was very prejudicial to agriculture, and he thought that evil ought to be remedied. He would move, as an amendment to the resolution: "That in the opinion of this Central Chamber, the special laws which surround the preservation of game are prejudicial to the interests of agriculture and the public generally, inasmuch as they diminish home production and the supply of food for the people, greatly increase crime, and frequently cause animosity between landlord and tenant. They therefore solicit the early attention of the Legislature, with a view to their abolition, and the substitution of a sufficient and effectual law of trespass."

Mr. JOSEPH SMITH (Essex), in seconding the amendment, said he considered the present system of game-preserving very objectionable. For 30 years he knew what it was to occupy a game farm, and a continual diversity of sentiment existed on that subject between him and his landlord. The game on that farm was afterwards given up to him, and everything then went on as harmoniously and comfortably as possible.

Mr. SMYTHIES: Without legislation (Hear, hear).

Mr. J. SMITH: Without legislation; but there was such competition in this country for land that many tenants had no opportunity of making a bargain (Hear, hear). A tenant-farmer could not do greater injustice to his son than by placing him on a game-preserving estate; but the temptation was often so strong that it was almost impossible to resist it, the young man wanting, perhaps, to marry and to settle in a farm preparatory to that (laughter). He believed that the proposal of the Chancellor of the Exchequer with regard to game-licence certificates struck at the root of the system of game-preserving, and was surprised that it was not viewed in that light by the last meeting of the Chamber. He thought the Government intended it to be a boon to the tenant-farmers who suffered so much from the over-preservation of game.

Professor BUND considered it very inexpedient for the legislature to interfere with the right of contract; except in the case in which an occupier having taken a farm for a long period, say a 21 years' lease, on the understanding that there was to be only a moderate amount of game, the landlord died within two or three years, and the quantity of game was afterwards enormously increased. The Bill brought in by the Lord Advocate and Mr. Bruce contained a provision which met that case, and he thought such an interference as that with freedom of contract was perfectly justifiable.

Mr. C. S. READ, M.P., said he thought the Chancellor of the Exchequer was a better judge of the reasons which led him to propose the new gun-tax than the seconder of the amendment; and the right hon. gentleman had stated that his object was to check poaching (Hear, hear). As regarded the amendment, it was nothing more nor less than the Bill which Mr. Peter Taylor, the member for Leicester, had introduced in Parliament, that was to say, a proposal for the abolition of the Game Laws. It was certainly intimated at the end that a stringent trespass law would be necessary, but the drift of the amendment was abolition (Hear, hear). The last speaker said something in praise of the Government Bill. That was the first time that he (Mr. Read) had heard it praised. It was simply a Bill to enable a tenant to go to law with his landlord. He believed that the tenant had that great privilege now (laughter); and he did not doubt that if a farmer having a lease went into a court of law and there proved that during the lease an excessive increase of game had taken place, he would obtain substantial damages from his landlord. Mr.

Loch's Bill, which was so much in favour in Scotland, was not viewed in the same light here, because it proposed to interfere with existing contracts. His hon. friend, Mr. M'Lagan, member for Linlithgowshire, whom he was happy to see present, proposed last year the best bill that had been introduced in Parliament, that was, a Bill for taking hares and rabbits out of the game list; and, though he had not introduced it this year yet, he believed he would do so next year if the question had not been previously settled. Mr. Hardcastle's Bill simply enacted that game should be property and poaching thieving—a change which would make the game laws much more stringent and oppressive than they are now (Hear, hear). He must tell the mover of the original resolution that as the law stood it was impossible for any tenant to know how much game there would be on his farm (Hear, hear). The last speaker alluded to what might occur during a lease. Why, it was quite possible for a new gamekeeper, even without the landlord's knowledge, if he were an absentee, to increase the quantity of game so much within a few months as to ruin some farmers. A man might perhaps be allowed to do as he liked with his own so long as he kept his land in his own hands, but when third parties came in it was desirable for the Legislature to interfere and impose certain restrictions. How often had Parliament interfered with the rights of owners of land? For example, there was an agreement that every tenant should pay all new taxes imposed during the term of the lease; yet when the property-tax was imposed Parliament said that notwithstanding any agreement to the contrary the landlord should pay under Schedule A. In the case of the Cattle Plague rate it was enacted that the landlord should pay half. There were, in fact, many instances in which the Legislature had interfered between landlord and tenant; and, though he extremely regretted the necessity for Legislative interference with regard to the Game-laws, he felt that tenants were driven to ask for something of that kind, because—he did not wish to use strong language, but he could not help doing so—because of the rashness of a few owners of land who would persist in the over-preservation of ground game (cheers).

Mr. JABEZ TURNER hoped it would go forth to the world that that Chamber regarded over-preservation of game as a great evil, and as incompatible with good farming. He had known cases in which, when a farm had to be taken, the quantity of game was very moderate; and as soon as the farmer's capital was invested, it rapidly increased. As to gamekeepers, he regarded them as the natural enemies of tenants (laughter).

Mr. M'LAGAN, M.P., said he was glad to hear such sound opinions expressed with regard to the over-preservation of game in England. He approved both of the original resolution and of the amendment. He approved of the resolution, because it condemned interference with freedom of contract, feeling confident that the party who would suffer most from such interference was the weaker party, the tenant (Hear, hear). As regarded the amendment, he believed that, if the game laws as they now existed were abolished, and there were a stringent law of trespass, the general result would be that there would be a moderate amount of game, and the tenant would aid the landlord in preserving it. He had always felt that a landlord who wished for good sport should allow his tenant to shoot as well as himself (Hear, hear). No gamekeepers would then be required; and the best gamekeepers a landlord could have were the tenants on his different farms. He intended to borrow from the Lord Advocate's Bill on that subject some clauses which would render his own Bill more complete. The 7th clause of the former enacted that all "injunctions" as they were termed in this country, or "interdicts," as they were called in Scotland, should be abolished, so that, if a tenant entered upon a farm with an agreement that the landlord should have the game, and the landlord afterwards preserved game to an extraordinary extent, the tenant would be able to shoot down the game if he thought proper. At present, the landlord could prevent that by taking out an injunction; whereas, if the Lord Advocate's proposal were carried, he would be unable to adopt that mode of proceeding. The landlord would then be obliged to proceed against the tenant for breach of contract; and that would throw the whole onus of prosecution and of proof on the landlord, and leave the tenant's hands free. Legislative interference with freedom of contract between landlord and tenant would, he thought, be at once useless in practice and

dangerous in tendency, because it would be a precedent for proceeding further in the same direction. Before the Legislature interfered with freedom of contract, it must abolish the game laws. The object of his Bill was to take hares and rabbits out of the game list; and he thought that, when that had been done, landlord and tenant might be left to contract as they pleased. He thought the alterations he had mentioned would place the tenants of this country in an advantageous position, and settle the question of the game laws for some time to come.

Mr. HENEAGE, M.P., said the Lincolnshire Chamber was opposed to legislation at present for two reasons—first, because it would disturb the whole of the existing arrangement in this country between landlord and tenant, and, secondly, because that was a very inopportune moment for doing what would be like throwing the apple of discord among the Chambers, union being now expressly desirable. Let them first try to get rid of the irregularities of local taxation, and then deal with other questions. Many persons seemed to forget that rabbits were the food of a great many people. He did not think the damage which they did was equal to the amount of food which they contributed (Oh, oh). Of course where game was kept for battues the case was different (Hear, hear). There the tenant lost, and the landlord gained. In some cases tenants themselves were the greatest preservers of game. One tenant in his district had the shooting under a long lease, and he had known as many as 400 hares to be killed on his farm in one day.

The amendment was then put and negatived, the numbers being 4 for it and 19 against it.

Mr. C. S. READ, M.P., said he believed he should be in order in now moving another amendment. Last year the Council passed a resolution declaring that it regarded the preservation of ground game as an unmitigated evil; it was now asked to declare that was "incompatible with good farming," and he thought it would appear as if they were going backward rather than forward if they did not use stronger language than that. The amendment which he had to propose rested not on his own authority, but on that of a large and influential meeting of the Norfolk Chamber, held on the previous Saturday. It was as follows: "This Council repeats its protest against the over-preservation of ground game, and considers that in all future agreements the owner and occupier of the soil should have a joint right to kill hares and rabbits" (Hear, hear). He was quite aware that the law as it now stood gave the whole of the game to the tenant (No, no). He said, yes; and he might add, that in 99 cases out of every 100 the tenant as a matter of course relinquished the whole of his right. The law as it stood was totally ineffectual to prevent a flagrant amount of injustice. He did not know whether or not any one would second his amendment, but he felt that he did his duty in proposing that the Council should declare that owners and occupiers ought to have a joint right to kill hares and rabbits. One word upon rabbits regarded as food. If rabbits were kept in warrens, or in places where a farmer could grow nothing but rape, they might be found very profitable animals to keep; but if rabbits or hares, or any other wild animals, scampered over arable land and ate and spoiled what they pleased, he did not hesitate to say that every pound of such food was the most extravagant kind of food that could possibly be produced (Hear, hear).

Mr. WREN HOSKYNs, M.P., in seconding the resolution, said that, knowing the difficulty which there was in dealing with that question, and how seldom it was approached with a determination to get to the bottom of it, he could not help thinking that what Mr. Read now proposed would answer the purpose better than any of the legislative measures which had hitherto been brought forward on that subject (Hear, hear). They all knew that the game-laws were a vestige of the old forest-laws of England, which were perhaps the most disastrous of the tyrannical laws inflicted by the conquerors upon the conquered in this island. Those laws were unpopular from the first; and they were only borne with so long because they were partially kept in abeyance. Mr. Read was strictly correct in saying that the tenant of a farm was the owner of the game. A person who took a farm, took with it all that went upon it, including both winged and ground game. That was his own property, and therefore, if he gave it up, he put himself out of court, as it were, for complaining—he now spoke merely in a legal point of view—of any damage which afterwards

arose from an evil to which he himself had consented. The question was, How was that to be remedied? It might be argued that the tenant was the author of his wrong by giving up his wright; but the answer to that was, that the land of England was such a limited commodity that the applicants for it were almost innumerable, and that hence it had become a sort of monopoly. There were in England three distinct causes which tended to render land a monopoly. First, there was the law which enabled a man to determine the ownership of the land even after the extinction of the generation in which a will or settlement was made.

Mr. STORER rose to order, contending that the speaker had no right to introduce the tenure of land into the discussion.

Mr. HOSKYNs maintained that he was not out of order in alluding to a fundamental law which bore on the question of game preservation. The three causes which he wished briefly to mention were—the law of entail, the law of intestacy, and the expenses of transfer, all of which tended, he maintained, to make land a greater monopoly than it otherwise would be. A freer distribution, by which he did not mean an extensive subdivision, of land would, he believed, tend to diminish the over-preservation of game. He believed that farmers would ere long see that question satisfactorily settled, and he seconded the amendment, because he believed it tended to that result.

Mr. COLTON said he hoped that Mr. Read, as the tenant-farmers' friend, would not press his amendment. In his belief it tended to divide landlord and tenant, and he should be sorry to see any animosity between the two classes.

Sir G. JENKINSON thought that the adoption of Mr. Read's amendment would be going backward. At present, as Mr. Read himself said, the law gave the tenant all the game, whereas what he had proposed would only give him half. When so many Bills had been introduced in Parliament, it was clear that the day had arrived when the question must be faced and legislation take place. He concurred in the first resolution as far as it went, but thought it did not go far enough. In his opinion the only way to abolish the game-laws was to abolish the word "game." If hares and rabbits were excluded from the operation of the law, and all winged game were treated as poultry, and the stealers of it as thieves, the question would be settled.

Col. BRISE, M.P., did not agree with Read in his condemnation of the Government Bill. In his opinion it was the best of the Game Bills now before the House of Commons, and would remedy the evil of over-preservation.

Mr. ORMSBY GORE, M.P., hoped the amendment would be withdrawn, as any difference in that Chamber would produce a bad effect in the country generally. They ought to be perfectly united on that point (Hear, hear). He deprecated as strongly as any one could the over-preservation of game. With his own tenants he had no difficulty whatever; matters were so arranged that they never differed on that question. If anybody disliked rabbits much, he (Mr. O. Gore) disliked them more (laughter); he considered them the curse of agriculturists, both landlords and tenants. He also disliked battue-shooting, but was fond of good sport. He would submit for the consideration of the Chamber whether the levying of a duty on the sale of game would tend to do good.

Captain CRAIGIE observed that last year the Council deprecated the preservation of ground game, and he thought Mr. Read's present proposal was a natural sequence to that. As to the original resolution, it was a dilution of an opinion expressed previously.

Mr. C. S. READ, M.P., then replied. He thought that half a loaf was better than no bread. He knew that in theory the law now gave the tenant the whole of the game; but he was unable to appropriate any portion of it to his own use, and therefore he (Mr. Read) said that under any future game bill, or any future agreements, the owners and occupiers of the soil should have a joint right of killing hares and rabbits. Having thus put on record his own opinion and that of the Norfolk Chamber, being perfectly satisfied with the discussion which had taken place, and wishing above all things to promote unanimity in that Chamber, he should, with the permission of the seceder, feel great pleasure in withdrawing the amendment (cheers).

The amendment was then withdrawn; after which the original resolution was adopted.

Mr. HODSOLL then moved the following: "This Council

considers that, in justice to ratepayers, all rights of sporting should be assessed to the poor rate."

Captain CRAIGIE moved, as an amendment, to insert after the word "that," "pending a revision of the whole system of local taxation;" and at the end of the resolution, "pending a revision of the local rates;" observing that those amendments would make the resolution more consistent than it then was with what had been done by the Council previously.

Mr. C. S. READ, M.P., thought it was impossible to assess rights of sporting. If they said "all land should be rated at its full value, irrespective of any rights of sporting on the part of the owner," that would make woods contribute to the poor rate a great deal more than they did at present.

After a short conversation the resolution was passed unanimously in the following amended form: "This Council considers that, in justice to ratepayers, all land should be rated at its full value, irrespective of any reservation of the rights of sporting on the part of the owner."

Mr. A. PELL, M.P., moved the following: "That this Council is of opinion that hares and rabbits should be excluded from the operation of the game laws; but considers that such exclusion would render imperatively necessary some change in the law of trespass." He said that resolution was directly at variance with the Government bill, which seemed to him a most incomplete measure for dealing with what was admitted to be a fit matter for legislation. The 8th clause of the Bill introduced into the consideration of the question another party whom he was sorry to see there, namely, the lawyer (Hear, hear); and he believed that nothing could be more likely to interrupt good feelings between landlords and tenants, or to prevent a satisfactory solution of a question involving such conflicting interests. For many years he had considered it desirable that rabbits should be excluded from the game list (A voice, "They are not in it"). They were included under the name of "conies" in most of the Acts of Parliament, and constituted the code of the game laws. He had long been of opinion that, whoever it might offend, the words should be struck out; and he thought the advocates for retaining rabbits were bound to show that the whole nature of the animal had changed (laughter). Wherever a man chose to enclose rabbits in hutches, or in a ten-acre field, let him have the protection which he required for that purpose; but, unfortunately, in many parts of the country rabbits wandered about, not at their own sweet will, for there was nothing sweet about them (laughter), but at their pleasure, committing serious depredations upon land which was highly cultivated, and therefore he said they should not be in the game list. When they came to the question of hares there was greater difficulty; but he believed that public opinion had changed very greatly with regard to that animal, and he thought the Chambers of Agriculture, consisting of both landlords and tenants, should consider how far it was desirable to retain protection for the animal, which was often quite as injurious to agriculture as the rabbit, and in some cases even more injurious (Hear, hear). He, for one, was prepared to contend that that animal should also be struck out of the game list. It had been objected that by such a course they would make friends of the poachers. He had no desire to make friends of any man who broke the laws of his country (Hear, hear); but it was a very disagreeable fact for consideration, with regard to poachers, that at present there were hundreds of them who had made themselves friends of the farmers. Great a crime as poaching was, especially night poaching, it could not be denied that marauders who engaged in it had been instrumental in diminishing an evil, which but for them would have been far more mischievous. So long as protection was given to rabbits and hares by law, it would be the duty of the police to repress crime in relation to them as well as anything else; but the striking them out of the game list would do away with the crime which their retention created. Something had been said about rabbits as food. He had something to do with the town to which, as was stated the other day in the House of Commons, a large portion of the rabbits that were killed went to be eaten—he meant Leicester; but he could assure the Council that the presence of a live rabbit on a farm gave no satisfaction in the Midland Counties. He could not assent to the doctrine, that they ought to take into consideration the value of rabbits as food, unless they came out of enclosed places and off land which was

specially adapted for their production, in which case it was a mere question of account—whether they paid for keeping, or whether the cultivator lost by them. Everyone of these creatures that had its liberty, feeding at its own will, checked the production of mutton and beef (Hear, hear). The rabbit devoted his attention to turnips, the hare devoted his to wnrzels; they both completely prevented the cultivation of such crops as cabbages and tares; and to suppose that under such circumstances the production of rabbits which were sold at a shilling a-piece was an economical way of producing food, seemed to him altogether erroneous. The Government Bill provided that the question of damages arising from that source should be intrusted to men of skill, who were to inspect the farm and report the result. He believed it would be impossible to estimate the damage, especially as the very existence of rabbits prevented the growth of some of the most valuable crops (Hear, hear). With regard to the second part of the resolution, declaring that the Council "considers that such exclusion would render imperatively necessary some change in the law of trespass," he hoped it would not be supposed that this was a case of taking away with one hand and restoring with the other. The intention was, that some change should be made in the law of trespass which would enable owners and occupiers to keep off men who would otherwise be popping their guns wherever game was preserved. He trusted the Chamber would affirm the principle involved in the resolution that, for the end in view, the wisest course was to deal with the animals and not with the owners and occupiers (Hear, hear). It had been assumed, that if the relations of landlord and tenant were placed on a satisfactory footing with regard to game, the whole question would be settled. He did not think so. Speaking as an outsider, as one who took a moderate view of this question, he must say that he should not be satisfied unless the Legislature left tenants at perfect liberty to shoot these animals or get rid of them in any other way they could.

Mr. JASPER MORE had much pleasure in seconding the motion, because it was the conclusion unanimously agreed to by the Shropshire Chamber that hares and rabbits ought to be struck out of the game-laws; secondly, he thought it important that a definite decision should be arrived at; and further, it was his own opinion, after long considering the question, that this was the solution required. As it was desirable that opinions should be registered at their meetings he would state what took place on the subject in shropshire. The farmers of that county asked him to introduce the subject, and he did so in as important a statement as he could make. The largest landowner in Shropshire was the Duke of Cleveland, and he gave the shooting to his tenants. At the meeting hardly any one but the farmers who had the shooting would speak, the rest being afraid, and those who had the shooting acted as spokesmen for those on other estates. A magistrate of great experience told the farmers of Shropshire that if they were plagued with the game it was their fault, and served them right for not making better agreements. This line he had seen adopted at other meetings. In Shropshire they once had an estate that "struck"; all the tenants declined to take farms till the rabbits were killed. They threw up their farms, the rabbits were killed, and the tenants came back again. But the farmers must be of a very independent class to do this, and the small farmers would not dare to do it. Therefore, on behalf of the class whose education unfitted them for any occupation except farming, and who were obliged to take farms however over-run with rabbits or hares, he felt convinced relief must be given by striking hares and rabbits out of the protection of the game-laws.

Mr. BENNETT (Leicestershire) said: He foresaw many difficulties which might arise from a stringent law of trespass in the case of fox-hunting. If they destroyed all the pleasure of landlords and "their little game" (laughter), they could not expect to see landlords amongst them (laughter). If they wanted to have money circulated they must not drive landlords away.

Mr. HENEAGE, M.P., thought the law of trespass was a very dangerous thing to deal with. In his opinion when rabbits and hares were declared to be no longer game, they would become the property of the tenant; and as vagrants were taken up when found lurking near woods, why should they not be taken up when found lurking near fields? If there were a stringent trespass law, hunting would be a "gone con" altogether (laughter). He should like to move as an amend-

ment that rabbits should be made by law the property of the occupier.

The CHAIRMAN: They are so now.

Mr. A. PELL, M.P.: Not till they are reduced into possession.

Mr. HENEAGE, M.P., said he wanted to have the matter treated as larceny.

Mr. CALDECOTT said the change which he would propose was that there should be a summary remedy for trespass, and no necessity for proving pecuniary damage.

Mr. HENEAGE, M.P., moved, as an amendment, to insert after the words "That this Council is of opinion that hares and rabbits should be excluded from the operation of the game laws," "but that they should be deemed to be the property of the occupier of the land on which they are reduced to possession."

Mr. SMYTHIES seconded this amendment.

Mr. D. LONG supported the amendment, adding that he should have preferred the abolition of the game laws altogether, combined with the establishment of a stringent law of trespass.

Mr. WHITAKER hoped the amendment would be withdrawn.

Mr. C. S. READ, M.P., cordially concurred in the opinion that independently of the game laws, agriculturists needed a more stringent law of trespass. A few months ago, for example, some fellows in Norfolk dug out a litter of foxes, and because the fox was a wild animal there was no redress. He did not believe anything could compensate a farmer for the damage done by game. To show how little the Government understood that question, he might mention that it was provided in their bill that there should be only one arbitration in a year, so that if there were a crop of winter vetches and a crop of swede turnips in the same year, there could only be compensation for one of those crops (Hear, hear). He hoped it would not be supposed because he had spoken so strongly about the depredations of hares and rabbits that he was against the preservation of winged game (Hear, hear). Nothing, he thought, could be more disastrous than to annihilate sport in the case of that kind of game (Hear, hear). If he might point to a model landlord, he would allude to an owner of 20,000 acres of land in Suffolk. On that estate there were killed last year by the owner and his friends no less than 12,300 head of partridges and pheasants. And how many hares and rabbits were there? Three hundred and thirty-seven! Need he say that the tenants on that estate were the happiest, even in the county of Suffolk; or need he remark that that landlord was not very far from him? (cheers). [Mr. Read was understood to allude to the chairman, Col. Tomline.]

Mr. Heneage's amendment was then put and negatived.

Mr. WEBB moved to substitute for the resolution the following amendment: "That this Council is of opinion that if the several Bills now before the House of Commons on the subject of the game laws, the one introduced by the Lord Advocate and Mr. Secretary Bruce is the best calculated to meet the requirements of the case, and that clauses should be added to compel the payment of damage caused by over-preservation to the crops of adjacent owners, and hares and rabbits excluded from the operation of the game laws."

Mr. WHITAKER seconded this amendment, which on a show of hands was lost, only four hands being held up in favour of it.

Mr. STORER moved the omission of the words "hares and" from the original resolution, thus limiting the exclusion to rabbits.

Mr. COLTON seconded the amendment, which was also rejected, the numbers being 7 for and 9 against.

Mr. CALDECOTT proposed as an amendment that the second clause of the resolution should be as follows: "But considers that such an exclusion—that of hares and rabbits—"would render imperatively necessary a change in the law of trespass, by giving a summary remedy without the necessity of proving pecuniary damage."

The amendment having been seconded, the resolution was carried in this amended form, the numbers being 12 for the amendment and 11 against it.

The adjourned discussion on the provisions of the Elementary Education Bill having been resumed, it was resolved, on the motion of Professor BUND, "That the limit of distance which is to determine the exemption of a child from liability to attend school should be two miles instead of one as provided by clause 66."

On the motion of Mr. HENEAGE, M.P., it was further resolved "That it is the opinion of this Council that the age up to which children should be required to attend school be reduced from 12 to 10 years."

The proceedings then terminated with a vote of thanks to the Chairman.

THE TURNPIKES ACTS CONTINUANCE BILL.

DEPUTATION TO THE HOME SECRETARY.

A deputation from the Worcestershire Chamber of Agriculture had an interview with Mr. Bruce at the Home Office, Whitehall, on the Tuesday afternoon, on the subject of the abolishing schedules of the Turnpikes Acts Continuance Bill. The deputation included Earl Beauchamp, Colonel Tomline, M.P., Sir J. Pakington, M.P., the Hon. G. H. Lyttleton, M.P., Mr. C. S. Read, M.P., Mr. A. Pell, M.P., Mr. F. W. Knight, M.P., Mr. Laslett, M.P. for Worcester, and Mr. P. Amphlett, M.P.

Mr. AMPHLETT, M.P., one of the Worcestershire county members, opened the subject. He said the Worcestershire Chamber felt alarmed at the prospect of having the turnpikes removed and all the expense of maintaining the roads thrown upon the different parishes and districts. £195,000 a year was, it appeared, the total burden which was to be thrown upon the rates, and of that amount the share of Worcestershire would be £17,500; and having regard to the present position of the question of local taxation, and to the fact that a larger measure relating to roads had been promised, they wished to obtain the consent of the Government to the postponement of the abolition of the Worcestershire trusts, at all events for a year, when new legislation on the subject might have taken effect. The Worcestershire tollgates now produced a revenue of about £7,000 a year; and more than half the parishes were not included in any highway district.

In reply to a question from Mr. BRUCE,

Mr. AMPHLETT said there were eight trusts, and the debts were now all paid.

Mr. WHITAKER said that as regarded the City of Worcester the Highway Board had offered to remove the turnpikes beyond the city boundaries provided the Town Council would undertake to keep the roads in repair. There were five miles of road, the repairs of which were enormously expensive. Worcester being a large manufacturing town, it would be very hard for agriculturists who lived at a considerable distance to have to bear such a burden; and there was reason to apprehend that if the bill were passed as it stood the roads in that neighbourhood would become greatly deteriorated. In order to get rid of the debt the Board had limited the repairs to a thin coating of material, and every penny that could be obtained was now required to put them in a good condition. The question of the continuance of turnpike trusts had been recently discussed in the Worcester Town Council, and in a division the numbers were 11 for and only 14 against it.

Mr. LASLETT, M.P. for Worcester, said he had been requested to state that it would be a great hardship to the majority of the inhabitants of that city if the turnpike trusts were abolished before the whole system of maintaining the roads had been altered. For a considerable distance the roads would be chiefly for carriages, and ratepayers in a humble position would be burdened for the repairs.

The Rev. Mr. PEARSON, chairman of the Worcester Highway Board, said he hoped that nothing further would be done with regard to turnpike trusts before there was general legislation relating to roads. The effect of discontinuing turnpike trusts would be that many parishes in his county would be saddled with an additional burden of sixpence in the pound; while some parishes would in consequence of the expensive character of the roads have to pay altogether as much as 2s. in the pound, other parishes, the inhabitants of which also used them, paying nothing at all. Nothing could be more unfair or unjust than such a system.

Mr. BRUCE: But that is a kind of injustice which exists in other places where there are no turnpike trusts. There are roads leading to railway stations which are used much more by the inhabitants of neighbouring parishes than by those of the parishes which have to maintain them.

Mr. PEARSON said that the inequality which the deputation protested against was a new inequality which was threatened by Government legislation, and the result of which

might be that the roads in question would gradually fall into complete disrepair. He thought that before the process of demolition went on they ought to have some idea what the system of reconstruction was to be. What the Worcestershire Chamber then objected to was the immediate abolition of the trusts.

Mr. GUEST was remarking on the injustice of the proposed abolition, when

Mr. BRUCE, interrupting him, said: All this injustice of which you complain is the natural result of the whole system. You went to Parliament for the power to raise money; the Act was only to last for a certain number of years; you raised the money; you made your roads, you paid off the debt; when the time for the operation of the Act expires you return to the old common law system, and you consider that an injustice. For twenty years or more we have been abolishing turnpike trusts; you don't stand alone. No doubt there is inconvenience in the inequality which has been mentioned, but turnpikes were authorised for the general advantage, and not for the advantage of particular localities.

The Rev. Mr. PEARSON: If any hardship exists it should be remedied.

Mr. BRUCE: There is no hardship. You got your Act, made your road, and paid for it.

Mr. WHITAKER thought that if Mr. Bruce considered the matter he would see that there was hardship. Because Irish agriculturists had murdered landlords and land-agents they obtained justice, and he did not see why the Government should oppress another class of agriculturists.

Mr. BRUCE: It was part of your bargain that you were to be murdered in this matter at a certain time (laughter). The time is come when you are to cease to live, and it is justice and law that you should cease to live.

Mr. WHITAKER said he could not admit the justice of that reasoning. He knew as an agriculturist that persons of his class had great difficulty in paying their local rates already; and he contended that property to the amount of £100,000,000 ought not to go free.

Mr. BRUCE: We cannot go into that; it is too general a question (Hear, hear).

Mr. WHITAKER continued: Agriculturists felt the difficulty with regard to roads most grievously, and they thought they were ill-treated when with a general Government measure looming in the distance the abolition of turnpike trusts was hurried forward. Why should there be such haste in the matter? Here was a turnpike trust which had existed for a century, and to abolish it in order to gratify the determined disposition of certain Members of Parliament, and thereby impose on the ratepayers an additional burden of 4d. or 5d. in the pound was, he submitted, in the present state of agriculture and with the prospect of a new general Bill, a gross injustice.

Sir J. PAKINGTON, M.P., must say that he had not been converted by the argument of the Home Secretary with regard to the expiration of the trusts. When a man seemed likely to die the usual course was to send for the doctor; and, in like manner, the deputation regarded the right hon. gentleman as the doctor in the present case, and looked to him to avert the apparently impending fate. He did not agree with him that the immediate abolition of the trusts was an unavoidable result of the existing system; and, although they must no doubt make up their minds to encounter some great change of system, yet they asked the Secretary of State to endeavour to mitigate and diminish the evils attending that change (Hear, hear).

Mr. BRUCE: I am afraid there is no middle course between letting trusts go on in their present state and putting an end to them. If there were any middle course I should be happy to adopt it.

After some further remarks from Sir J. Pakington,

Mr. BRUCE said he admitted that there was great force in some of the arguments which had been used, and he felt that there was special ground for consideration in the case of roads which when the trusts expired would receive a large amount of traffic from other roads. All he could say was that he would take the arguments which had been addressed to him into consideration, and give the subject his best attention. He could not state at that moment what course the Government would pursue.

The deputation then withdrew, the interview having occupied about an hour.

A SKELETON SKETCH OF FREE TRADE.

[The subjoined remarkable letter, which it will be seen the writer signs as "Chairman of the Central Chamber of Agriculture," has just been put into circulation. Is it to be understood from this that the Chambers are committed to such a manifesto?]

And hunger's scowl was prophecy.—E. ELLIOTT.

GENTLEMEN,—We shall have a free mint. No Government will again be able to refuse silver and gold coins to men whose business in life is to earn them.

One cause of pauperism will be removed. Others remain in excessive taxation and unequal rates. I venture to ask you to consider what our position is now, and what it might be?

One per cent. is a light tax.

The Probate and Legacy Duties average $4\frac{1}{2}$ per cent.

The Malt-tax is 100 per cent.

Railway passengers contribute 5 per cent. to the Exchequer.

The duty on Tobacco in England and Ireland is—

Prohibition to grow it.

Local Rates are 15 per cent. on one-third of the income of the nation.

One per cent., therefore, is a light tax.

Six per cent. is taken from the silver coinage, which, though it be the wage of all industry, is limited in amount.

The duty on an Inland Bill of Exchange for £10,000 is £5. The duty on £10,000 in shillings, which are the livelihood of poor men, is 600 sovereigns; and neither the sovereigns nor the shillings are permitted by the Chancellor of the Exchequer to be coined, though bills may be multiplied at the pleasure of rich men.

The duty on a Foreign Bill of Exchange for £10,000 is £1 13s. 4d.

The Bank of England deducts $1\frac{1}{2}$ d. from every ounce of gold bullion which it receives in exchange for bank notes. If the metal remain uncoined it does nothing for this charge. £2,000 per million is only part of its profits if the gold be coined, though the expense be borne by the taxpayer.

The Bank has charged 10 per cent. for the loan of bank notes, with the consent and advice of Government, to break the law when in difficulties.

Mr. Lowe has justly proposed to take 1 per cent. from the sovereign to pay Mint expenses. In India there is a duty of 1 per cent. on gold; of 2 per cent. on silver, the poor man's metal. In Australia the duty on gold coin is 1 per cent.

One per cent., therefore, from the circulation is a common and light tax.

The assessed taxes stop employment and deny to Englishmen freedom of trade, which for many years seems to have been reserved for foreigners. These duties are now paid in advance, and a poor man has no practical appeal from the Surveyor, but is at his mercy.

Therefore the assessed taxes are a grievance.

The Income-tax is a sad source of immorality. Fifty-seven millions in Schedule D escape the tax unfairly; and this immorality, become systematic, is ruining our commercial credit at home and abroad.

Therefore the Income-tax is a grievance.

The Malt-tax is a charge of 100 per cent. on the arable land of England and Ireland. It is borne chiefly by poor men, and injures the character of statesmen, who declaim in favour of free-trade, while they refuse it to their countrymen.

Therefore the Malt-tax is a grievance.

A tax of 1 per cent. shown to be comparatively light, on funds which pay no poor or other rates, would supply the means of redressing these three grievances.

The London Clearing House statistics explains this:

£3,720,623,000 in cheques and bills were paid there last year.

One per cent. on three billions seven hundred and twenty millions six hundred and twenty-three thousand pounds, which now pay scarcely a tax and no rates, would give £37,206,230, collected weekly, by stamps, without the expense and annoyance of Excisemen, Income-tax Commissioners, or Surveyors of Taxes.

No poor man would feel this tax, and the wealthy might escape by using coins, which would become abundant instead of continuing scarce, as they are now.

One per cent. on unlimited paper money is a favour if contrasted with 6 per cent. on silver coin, which is limited, depreciated, and when exported not to be replaced.

If other nations had Free Mints and Free-trade they could be customers to each other, with power to purchase, of which

now all are destitute. In the Banks of France and England £73,000,000 are hoarded. Were these coins circulated, the French Treaty would be a success; now both nations complain of it.

I give a skeleton sketch of Free-trade, and ask you to examine it, bearing in mind that under our present system, 1 man in 18 is a pauper, that other nations are as poor as we are, and that over-production and depression of trade mean that neither at home nor abroad can we sell what we produce to people who are willing to buy, but are not permitted by their Ministers of Finance to have coins with which they can gratify their desires.

I have the honour to be, your obedient servant,

GEORGE TOMLINE,

Chairman of the Central Chamber of Agriculture.
Orwell Park, Ipswich, May, 1870.

A BREEDING FLOCK ON HEAVY LAND.

At the meeting of the Ixworth Farmers' Club, the Vice-President, Mr. P. Huddleston, in the chair,

Mr. J. Fison, of Barningham, said: The purport of this paper is to assert and show, from a practice of more than a quarter of a century, that farmers may be independent of bullocks. I must premise my particulars by erasing your indulgence and gentle judgment, inasmuch as I have too recently engaged in agricultural pursuits to perhaps critically or correctly convey my ideas. The object of our meeting is, however, well understood; one gentleman is elected to bring forward a subject for discussion. This follows, throwing light and shade, assents and dissents, on the matter treated. I freely confess my knowledge of stock is so limited that I look forward to your friendly critiques with considerable interest. I will thank you to remember I am only pursuing a system of farming as commenced by my late father, and continued by him for many years; his rough and useful appliances I found ready to hand, and, as I before stated, my ignorance of farming detail prevented my attempting anything beyond what was well understood on the farm. Whether our system be or be not too elaborate and expensive, I must leave for your collective wisdom to determine. In order that you may arrive at something like a correct estimate, I beg to tell you that last year my labour at 11s. per week per man cost £1 18s. 6d. per acre for harvest, thatching, picking stones, thrashing, chaff-cutting, draining, and a carpenter—everything, in fact, excepting steward's salary, lamb money, and shearing; with these addenda it cost £2 3s. 6d. I shall feel obliged by any opinion respecting this heavy item. My occupation consists of two small farms, very inconveniently lying right and left. These collectively represent 280 acres of good land, requiring draining, 25 of which are pasture, not super-excellent, as our friend Mr. Goldsmith stated, but rendered prolific by the maintenance of an unusual quantity of sheep. We keep 420 half-bred Leicester ewes, purchasing, as a rule, the largest two-shear we can pick. With these and our horses we make our manure. For the long period mentioned heavy crops have been raised entirely without the agency of bullocks. We use Oakey's tups, which we think have a dash of Cotswold in them. Please note this, and subsequently give me your opinion, as I have been recommended to revert to a prurer breed—to use the improved Hampshire as raised near Salisbury. Our fall of lambs averages heavy; last year and this are exceptional. Last year the absence of the usual stimulant—rape—at the time the males were turned to the ewes, was against us, and that the rape is a most useful food at that particular time we had a singularly plain proof. As we had a small quantity which lasted a fortnight of the time the tups were with the flock, the corresponding time for lambing cheered us with a good fall. The other portion, though we gave them best linseed-cake, was miserably slow, and the fall small. If similarly again so situated, I would use barley cautiously, or beans. In 1866 we sold 614 lambs, realizing £788; in 1867, 617, making £743 3s. 6d.; and in 1868 596 sold for £602, and in 1869 544 for £519 17s. 6d.; for four years an average yearly sale of £668 3s. 3d. I am able to account for our small crop this year. Our quantity now rearing is about 27 score. For last autumn and the spring-feeding we provided 26 acres of rape, 8 of which

were after early dun peas, now in wheat; 4 acres of cabbages, now in barley, about half-an-acre being left for lambing; 20 acres of turnips, six of which, after a bad layer, now in wheat, 5 acres were swedes, the latter partly drawn and partly fed on land were grown; 18 acres of beet, 10 of which were autumn tilled, 8 after rye—the 10 acres are in wheat, the 8 in barley. The flock was folded in autumn on turnips, stubbles, &c., supplemented by barley-straw chaff, layers slightly run over. For spring feed—30 acres of layer, 8 rye, now planted with beet; 13 acres of Italian rye-grass, to be broken up as early as we can and sown with rape, followed by wheat; 11 acres tares and oats. We began using beet in January, pulping about 16 bushels daily, mixing them with chaff. You will understand the term chaff implies cut barley-straw; the quantity daily increases, till some days we have 300 bushels consumed, and as soon as we think it necessary we commence adding corn or cake ground, beginning at four stones daily, increasing to 18 stones. On March the 26th our week's corn, &c., was—4 coombs of barley, costing £2 10s.; 4 coombs of peas, £3 8s.; $1\frac{3}{4}$ linseed-cake, 18s. 4d.; $1\frac{3}{4}$ cotton-cake, 10s. 6d.; grinding, 8s.; toll, 2s. 6d.—making £7 18s. 10d., or a daily cost of £1 2s. 8d. Here, again, for the ewes I have been advised to replace linseed-cake by cotton, husked palm-nut meal, and corn. The flock is yarded when the weather becomes wintry, and there trough fed with the chaff mixture morning and night, or when necessary having a run of a few hours, according to weather, on some pasture where is thrown out one or two Scotch carts of roots. Our usual time for turning in the males is the 9th of October, but this year we advanced the time a week, as you may be sure we are anxious to clear our land as early as possible. Our farm is generally cleared by the middle of June, and as early as prudent our ewes go out to keep; last year we kept them at home, but, judging by the experience of my late father and our observations, it is in our case no gain. It is considered by us that the change of locality benefits the flock and increases the fall of lambs. Of course it sweetens the farm. The lambs are dropped in the yard, which at this time really presents a most busy and interesting little world. Two long sheds are enclosed, with pens on each side, to which the ewes and lambs are conveyed immediately on the birth of the latter, and from which in a few hours they are drafted off according to condition of mother and lamb into sundry small lots. They are still penned and daily drawn off, making three lots—single, doubles, and weak mothers and lambs. The doubles, of course have the best pick and the larger allowance of artificial food. Implements are unhoused, barn, straw-houses—in fact, every available space is devoted for a few weeks to the respective lots. The management of the lambs afterwards is a repetition of other farmers' plans—layers folded, lambs running forward to an advanced fold, in which troughs with cake and peas are placed. I omitted mentioning our sheep-yard has fresh straw almost every day. I buy the best cake, fearing cotton-cake, where so much dry food is used; but at Barningham Hall it is used without bad results. I am trying it this year, as you find. We find in wet seasons the following mixtures invaluable when diarrhoea follows too-luxuriant or wet food: Powdered catechu, $\frac{1}{2}$ oz.; powdered ginger, $\frac{1}{4}$ oz.; prepared

chalk, 1 oz.; peppermint water, $\frac{1}{2}$ pint; lamb dose, two table-spoonfuls night and morning. One very serious evil resulting from an over-stocking is the foot-rot, which we minimise as much as possible by separation; all remedies I have tried are useful for a time, but nothing is so rapid in its effect or permanent as the following, which I give in the hope it may be useful: Ounce of quicksilver dissolved in an ounce of nitric acid, and to this subsequently add $\frac{1}{2}$ pint of vinegar. Like other flockmasters, we have both seared and drawn successfully; we practise the latter now—but with the assistance of the knife, we have lessened very much the exhaustion, and indeed pain of the poor victims, to say nothing of the disgusting features of the old mode of drawing. You will observe that the bulk of our winter-feed is cut barley-straw; we cart the barley at the barn-door, where the drum is so placed as to eject the straw into the straw-house, which will contain two days' thrashing, the cutter converting it into chaff in about the same time—by steam, of course. We consumed in the winter 1868-69, 69 $\frac{1}{2}$ acres of barley-straw so converted, and more this winter. What remained was fermented with cut wheat-straw, tares, and a sprinkling of salt; this we find admirable food for our horses, and lessens interruption in harvest. Our wheat-straw is converted into manure, as you see by the agency of the flock. Ours I am aware is a system which cannot be carried out on every farm; and our returns simply consist of wheat, barley, and lambs. To make this as large as possible, we steal all we can, cropping in a very irregular way, and getting as large an acreage as possible. Our present corn-growing is 84 acres barley, 60 wheat, and 10 early peas, these to be followed by turnips or cole, and further followed by either wheat or barley. Our last year's crop was 86 acres of barley, 64 wheat, and 8 early peas, followed by early rape (now in wheat), and 3 of peas and beans. Our crop in 1868, you will observe, shows the irregularity of acreage when we come to it. This striving after effect of course adds much to horse-wear labour, as also the careful treatment of the flocks; but the balance-sheet shows the figures on the right side. Yet the expenses are so heavy, I confess I am always vexed at the close of our farming-year (Michaelmas Day), that the per side does not show a heavier result; further than this, it teaches me indisputably that farming, though a most enjoyable occupation both for mind and body, is very far from an El Dorado. It may interest you to hear a rough statement, which I found amongst my father's papers, of the supposed cost and profit of 20 score ewes from July 1, 1861, to June 30, 1862.

The following is the statement:

	£.	s.	d.
To Feed purchased	96	6	0
" 280 sacks of chaff at 3d.	3	10	0
" 20 weeks ditto, 140 per week.....	35	0	0
" Malt colrus	11	4	0
" Cake.....	76	12	0
" Offal.....	20	5	0
" Cleaning beet	7	0	0
" Carting ditto	5	10	0
" Horse mencing.....	4	0	0
" Shepherd's wages	38	16	0
" 612 lambs at 6d.....	15	6	0
" 17 acres of turnips.....	17	0	0
" 25 ditto beet	140	0	0
" 28 ditto Italian grass	14	0	0
" 13 ditto rye.....	6	10	0
" 3 coombs beans	3	6	0
" Keep of 5 sheep	5	0	0
" 20 acres of layer	20	10	0
" Extra labour—sheep	21	10	0
" Replacing crones.....	100	0	0
	641	5	0
Profit	250	5	0
	891	10	0
By 608 lambs	637	10	0
" 4 tup ditto	10	0	0
" Wool	122	0	0
" 72 acres folding	72	0	0
" 500 loads of manure	50	0	0
	891	10	0

This seems an approximation only, as there is no credit entry for sale of crones and skins. Further, as this is a case 'Sheep versus Bullocks,' and to more fully carry it out that farming may be successfully practised without the latter, I give you the corn valuations for 1868 and 1869, with their results:

MICHAELMAS VALUATION, 1868.

Acres.	s.	£	s.	d.
70 $\frac{1}{2}$ wheat, 10 coombs per acre, at 25.....		881	5	0
69 $\frac{1}{2}$ barley, 11 " " 20.....		764	10	0
10 peas, 7 " " 20.....		70	0	0
13 peas and beans.....		104	0	0
		1,819	15	0
Plus valuation.....		334	1	9

RESULT.

Wheat sold.....	949	19	10
Barley.....	1037	16	10
Peas consumed.....	85	0	0
Beans and peas.....	91	0	0
	2,153	16	8

MICHAELMAS VALUATION, 1869.

Acres.	s.	£	s.	d.
64 wheat, 11 coombs per acre, at 22.....		774	8	0
86 barley, 11 " " 18.....		851	8	0
8 peas, 11 " " 17.....		74	16	0
3 peas and beans, 9 " " 20.....		27	0	0
		1,727	12	0
Plus valuation.....		1	18	6

RESULT.

Wheat sold.....	806	11	9
Barley sold, £649 2s.; 48 $\frac{3}{4}$ coombs used for seed, at 17s., £41 8s. 9d.; 21 coombs winter, at 15s.; £15 15s.; 178 dross, at 13s., £115 14s.	821	19	9
Peas consumed.....	76	19	0
Peas and beans ditto.....	24	0	0
	1,729	10	6

My barley was very inferior, and manures, value £70, were worse than thrown away; though I grew 1,041 coombs, the result, as you see, was considerably below the 69 $\frac{1}{2}$ acres of the former year. Gentlemen, I must apologise for my discursive paper, and at the same time thank you for your polite attention. I appeal to you for the verdict—That these facts, running over so many years, indisputably prove that farming can be carried on with good results without bullocks.

The CHAIRMAN asked how many months the sheep were kept in the yard?

Mr. FISON said they were put in as soon as the weather became wintry, and kept there until the lambing, and then they were drafted off as he had explained.

The CHAIRMAN said he should like to hear why light land farmers did not carry out Mr. Fison's system, as he did not see why it should not be equally successful. He was surprised at the large number of sheep Mr. Fison kept upon 260 acres of land.

Mr. HATTEN said it was more expensive keeping sheep in the yard than on the land, and he should like to know the total cost of keep for Mr. Fison's in the winter months. He kept his on the land, and it cost 7s. a-week to feed them, but Mr. Fison's cost him a good deal more.

Mr. FISON said his cost £1 2s. 8d.

Mr. HATTEN said it cost more, taking into consideration the carting of the roots to the yards.

The CHAIRMAN said there was a great deal of extra labour in keeping sheep in the yard, and he wanted to know if Mr. Fison included that in his average per acre.

Mr. FISON said every farthing for labour was included in his calculation, and it was a great deal too much. He wanted to learn whether by expending money in that extra labour he was on the right track.

Mr. MANFIELD thought sheep on heavy land paid better than bullocks, and Mr. Fison not only got a good return for his sheep, but also a good return of corn. He should like to know how much land was given up to sheep.

Mr. FISON said about 25 acres.

Mr. MANFIELD said he was of opinion that keeping sheep

on light land on Mr. Fison's system would not do, as drawing the roots off impoverished it. Mr. Fison did not farm on the four-course system, and that was a point to be considered. The feeding off roots on heavy land often did more harm than good.

Mr. FISON, in answer to Mr. Hatten, said his flock was now in as good a state as ever it was.

Mr. S. W. HUNT said in Barningham there was land that would not be found in many parishes, and besides Mr. Fison kept profitable sheep, and his was altogether an exceptional case, and should not be put forth as an average one. People would be led to suppose that farming was a very paying occupation, but it was not so. Mr. Fison's land was far superior to many people's, although there was great credit to him for what he had done. His system would not pay on an average farm.

Mr. FISON said he had some land on his farm as heavy as any in the county.

Mr. HARRISON: Not much.

Mr. FISON said there were about 24 acres, and it did not produce 5 coombs an acre.

Mr. HARRISON said even that was not to be compared with some of the heavy land in the county.

The CHAIRMAN said Mr. Fison's might be good land, but Mr. Hunt said it was very well managed, and that might apply to many other farms. He saw no reason why they should stand still at a four-course system if it was not the best, but that was a very large question.

Mr. HUNT said many farmers, if their landlords would allow them, would be glad to farm on another system. There were many who could not, like Mr. Fison, farm as they liked. But they must remember the four-course shift of the present day was different from that of fifty years ago.

The CHAIRMAN said if the tenant's interest was adverse to the landlord's, there was an end to the question.

Mr. HUNT said farms were let to the highest bidder, without any inquiry being made as to whether the tenant had any capital to carry them on, and he thought that ought not to be. If a tenant had capital, then he ought not to be tied down to the four-course system.

Mr. TAYLOR asked if the four-course system deteriorated the land? If not he could not see any objection to keeping to it.

Mr. HARRISON said they were all indebted to Mr. Fison for bringing the subject before them. He had not had much experience in feeding sheep from yards; but what he had had gone against him. If sheep were kept on the land, there was the manure already spread, and on mixed soil and light land it would be ruinous if the sheep were not folded on the land. Mr. Fison's item for labour was very heavy. By the request of Mr. Fison, he had looked into his (Mr. Harrison's) labour account, and he found that from 1833 to 1844 his wages were for three years 9s. a week, and for four years 10s., making an average of £1 9s. 10d. per acre. From 1863 to 1869 they varied from 9s. to 11s., and averaged 16s. 4½d. per acre; and this was far below Mr. Fison's average, for his labour was very heavy compared with labour throughout the country. As to the four-course system of farming, he did not think they could beat it, and on land of the description of Mr. Fison's it might be made to grow something in the fallow shift.

Mr. HARRISON contended that his corn and lamb returns were satisfactory, and his experience after three years was that feeding on the land was injurious instead of beneficial. As to wages, Mr. Harrison's averaged £1 10s. per acre; and his, which included a farm steward and the extra carting, only averaged £1 18s. 9d. The four-course system was the most simple; but, at the same time, great results might be obtained by farming as he did, although it entailed a large amount of labour. His farm had been farmed well for fifty years, and that made a great difference.

Mr. HARRISON said his wages were beyond the regular average, and he was known to be an extravagant farmer. With regard to what had been said about tenant-right, he was not of opinion that it was landlord-wrong. A change in the present tenant-right was necessary; and although he was not so much in favour of leases, he should like to see a two years' notice, subject to all improvements, being made by the incoming tenant.

Mr. T. GOLDSMITH said he could farm his land as he liked, but he would not farm out of the four-course system. He tried it once at the Dairy Farm, and it entirely beat him.

The CHAIRMAN said if a person who had not much capital did not farm on the four-course system he would be out of pocket.

A vote of thanks to Mr. Fison and the Chairman closed the proceedings.

THE SCOTCH FARMERS ON THE GAME BILLS.

At a special meeting of the Logie and Lecroft Farmers' Club, held at Bridge of Allan, to consider the Game Bills at present before Parliament, Mr. Wm. Henderson, Craigarnhall, in the chair,

The CHAIRMAN said: The resolution which has been put into my hands to move is, "That the Bill brought into Parliament by the Lord Advocate and Secretary Bruce, intitled a Bill to amend and assimilate in certain respects the laws of England and of Scotland relating to game be opposed and rejected." We have heard much of late of the curiosities of the Game-laws, but how such men as Lord Advocate Young and Secretary Bruce, both representatives of Scotch constituencies, should ever think of passing such a Bill is past my comprehension. It is called a Bill to amend the laws relating to game. Its amendments, if any, are altogether in favour of the landlord, a game-preserver, and against the tenant. It sets out with a flourish, that "the sole right of taking or killing game shall belong to the tenant." Very good, indeed, and quite as much as could be expected; but here comes the gull, "unless expressly reserved by the landlord." This right to reserve by the landlord is at the root of all the mischief, and so long as this power of reservation is allowed to the landlord, the rest of the Bill goes for nothing. The late Lord Advocate (Mr. Moncrieff), when in Parliament, told the House that game was the property of no one. There is really something curious about these Game-laws, which no ordinary mortal can possibly understand. Why give the power of reserving the game to the landlord, or rather the power to prevent the killing of game, when it actually does not belong to him? By this Bill, the power being still retained to the

landlord to reserve the game, the tenant will have to feed animals having no rightful owner, and yet the landlord has the power to prevent him killing them for the purpose of protecting his property. Can anything be more absurd than this? And as game is known to travel far in search of food, the better and sweeter the tenant's clover, the more hares and rabbits will he have to eat it; and the thicker he sows his corn, the more winged game he will have to pick it up. This reserving power of the landlord seems to me sufficient cause why the Club should oppose the Bill, and do all in its power to prevent such a contemptible piece of would-be legislation from passing into law; and I do therefore move accordingly.

Mr. ANDERSON (Westlees) said: I beg to second the motion. Surely the learned Lord Advocate was not aware of the state of feeling in the country in regard to the Game-laws when he brought in his Bill to amend them, otherwise I consider his Bill to be rather an insult to agriculturists than a remedy for their grievances, and therefore should be strenuously opposed, for few farmers would venture to enter the Court of Session against their proprietors.

Mr. PEAT (Manor) said: The motion that has just been passed shows what we wish to avoid; the one I have to propose is what we ought to do, which is as follows: "That Mr. Loch's Bill be approved of, and a petition in favour of it to the House of Commons forthwith sent to Mr. Campbell, M.P. for the Burgh of Stirling." Of the four game Bills at present before Parliament against the Game-laws, Mr. Loch's appears to be the most equitable one for all parties; it protects the interest of both landlord and tenant, and prevents the one party from unduly taking advantage of the other. It does

not interfere with winged game, which affords most sport to the sportsman, and it divests the landlord's right in favour of the tenant to kill the hares and rabbits, which commit the chief injury on the crops, and incur so much distrust and bad feeling between landlord and tenant. The clause making it illegal for the landlord to claim the right to the hares and rabbits on the land let to the tenant can, I think, on the score of interference with the liberty of bargain-making, be easily got over, because it is just a clause for preventing the powerful taking unfair advantage of the weak. Many parallel enactments are at present in operation and work well. It should also be kept in mind that our importations of grain are very considerable and yearly increasing, and it seems right that the law should step in and prevent owners of the soil from making an abuse of its capabilities, or turning the land into little account when the country stands in need of its amplest crops. Another part of the bill puts an end to contracts already made, protecting the hares and rabbits, but affords full compensation to the landlord by the tenant, so the landlord meets with no pecuniary loss by the change. There is another very good clause allowing compensation for damage caused by an undue number reared by owners or tenants of adjoining lands, and like the smoke arising from chemical works, creating a nuisance all round. The clause is applicable to this district; it also provides that all prosecutions under the Game-laws should be before the Sheriff-Substitute of the county, and not cognisable by Justices of the Peace, thereby doing away with the double part acted by the justices of being a party in and judge of the

same case. The Bill contains some other useful clauses, and altogether I think we should petition in its favour.

Mr. JAMES M'LAREN (Spittal) said: The resolution which has just been proposed by my respected friend, Mr. Peat, to support Mr. Loch's Bill now before the House of Commons for modifying and improving the Game-laws in this country does, as I believe, give general satisfaction to the great body of practical farmers. It does come short in some points, but upon the whole I am persuaded that were Mr. Loch's Bill, in its present form, passed into law, it would have the effect of settling in a great measure that long vexed question between landlord and tenant which has for many years been the cause of so much unpleasant and unprofitable litigation between these parties on that account, and also as a general public good I have much pleasure in seconding Mr. Peat's motion.

Mr. WINGATE (Corntown): In this year's Budget, the Chancellor of the Exchequer has announced that it is intended to repeal the game licences, and to impose a tax upon guns instead of them. As there is no exemption on behalf of guns used by farmers for the protection of their corn and green crops from injury by rooks, ravens, wild pigeons, and other destructive birds not under the protection of law, I beg to move that a representation be sent to the Chancellor of the Exchequer, urging upon him the propriety and justice of exempting guns from said tax which are so employed for the protection of the said crops—the main necessities of life.

Mr. JAMES FINLAYSON (Pendreich) seconded the motion, which was unanimously agreed to.

PAROCHIAL ASSESSMENTS.

The following paper was read by Mr. EDWARD RYDE at a meeting of the Institution of Surveyors, Mr. R. C. Driver in the chair:

This paper contains a description of the various kinds of property in respect of which poor rates are levied, and the manner of valuing that property for the assessment. Property to be expressly liable to the poor rate under the statute of Elizabeth must be "locally within the parish;" "visible within the parish;" and, "productive of a private profit within the parish." Briefly it may be described as—1. Lands (in occupation) in the parish. 2. Houses (in occupation) in the parish. 3. Tithes inappropriate and appropriations of tithes arising within the parish. 4. Coal mines (in occupation) in the parish. 5. Saleable underwoods in the parish. All the lands in occupation in a parish, except woodlands, are rateable; but the word "lands" in the statute does not appear to carry the usual legal meaning of that word, because it cannot include houses, as they are separately referred to therein. The words "lands and houses," together, have been held to include all descriptions of landed property used for any purpose above the surface of the ground, excepting that of growing wood and timber. These products of the land have always been held to be exempt, because "saleable underwoods" are specially made liable. In the same manner, as regards things below the surface of the soil, the courts of law have always held that all mines, other than coal mines, were intended to be exempted from poor-rate, because "coal mines" are specially by name made liable (*Rex v. Sedgley*, 2 B. and A. 73). This speciality has raised a difficulty. It has been necessary for the courts to determine where land, which is rateable, ended, and a mine, which is not rateable, began. In the case of *Rex v. St. Austell* (reported in 5 B. and A. 693), it was held that a part of the produce of a mine (not a coal mine) reserved to the owner was subject to the rate—not as a mine, but as a reservation of the soil or land itself—and the owner was held to be rateable as occupying the land. In the case of *Rex v. Sedgley*, Lord Tenterden thus described the difficulty he felt in attempting to reconcile the judicial dicta on this subject: "The whole mine, not being a coal mine, is exempt. If the owner works the mine and takes the whole produce, he is not rateable for it, either as a mine or land. If he lets it to an occupier, reserving a rent, the occupier is not rateable for it either as mine or land, nor is the owner liable, no one being rateable for a mere rent. But if the owner lets it, reserving a part of the produce, that part is held to be land,

although the whole mine, or the whole of its produce is not land, and the owner is rateable for this part of the mine as occupier of land, though he would not be rateable for it if he occupied and worked the whole and took directly the whole produce." In the case of *Rex v. Earl Pomfret* (5 M. and S. 139), it was held that one of a lead mine, reserved by the owner, which had to be smelted before it was rendered, was not a portion of the soil, and not subject to the rate. And in the case of *Rex v. Tremayne* (4 B. and A. 162), it was held that where the reservation to the owner was the value in money of a portion of a mine, other than a coal mine, the owner is not rateable for that. In the case of the *Telargoch Mining Company v. St. Asaph Union*, it was held that the appellants were rateable to the poor rate in respect of the occupation of a stream, which they had diverted from its natural course for the purpose of working the machinery connected with a lead mine which was not rateable. The water-course was about a mile and a half in length, being partly open, partly tunnelled, and for about 350 yards in pipes. The company were owners of part of the land occupied by the water course, and part of it they rented. The land was held to be enhanced in value by its capability of conveying water and not exempt from rateability by reason of its connection with a lead mine. Operations involving the consumption of the body of the soil itself, but which do not amount to mining, render the land operated on subject to the rate. For example, stone quarries, lime works, slate works, salt works, potteries, brickfields, pits of fullers' earth, sand, marl, and gravel have all been held to be rateable, but with this distinct qualification—that if the minerals cannot be got without involving a mining operation, then they are not rateable. To enumerate all the purposes for which lands can be so occupied as to be rateable would, in these days, almost amount to an impossibility. There are lands used for agricultural purposes, accommodation lands, building lands, railways, private roads and ways, canals, reservoirs, docks, gas works, water works, markets, yards, wharves, bleaching grounds, fisheries, &c. As regards navigation and fishing, a mere right over the water, without an interest in the land, is not rateable. The right of shooting over land occasionally complicates questions concerning the rateability of the respective occupiers of the land and the shooting. It was clearly laid down in the case of the *Queen v. Battle Union* (L. R., vol. 2, p. 8) that, where an owner retains in his own occupation woodland, but lets the right of shooting over it with a neighbouring mansion, he is

rateable for the land and the shooting, on the ground that the right to take game is an incident to the occupation of the land, and that he derives a benefit, not from taking the game himself, but from a pecuniary recompense made to him for allowing some one else to take it. His occupation of the woodland is productive to him of a value enhanced by the rent which he receives for the shooting. The case of *Reg. v. Thurlston* was of a different character. The landowner had let a farm to one man, and had granted the right of shooting over the farm to another. It was held that the occupier of the farm is to be rated only for the bare occupation of the land (28 L. J., M. C., 106). The right of shooting alone without the occupation of land, or without connection with some rateable subject, is not rateable. This was decided in the case of the Overseers of Hilton and Wakefield, and the Overseers of the Township of Bowes (L. R., vol. 1, p. 359). It was there laid down that, in order to make a person rateable to the poor rate, he must be the occupier of some subject matter which is itself rateable; but the rateable value of the subject matter may be enhanced by something which is incident to the occupation, though not in itself rateable, such as the right of shooting. The case was a very peculiar one. The wastes of a manor had been converted into a stinted pasture under an inclosure award; but the rights to minerals and of shooting were left in the lords. Thus the right of shooting has been severed from the ownership, as well as the occupancy of the soil. Springs of water are rateable in the sense that they enhance the value of the lauds in which they arise. In the case of *R. v. Miller* (3 Cowp. 69), Lord Mansfield said: "The value of the four acres of land arises partly from the building and partly from the spring that produces the mineral water." In the case of *Rex v. New River Company*, the land in the parish of Anwell was of the value of £5 only; but it had a spring in it, which enabled the company by means of pipes to bring water to London, and which increased the value of the land. The land with this spring in it was therefore rated at £300, although the water alone would not have been rateable at all, and the land alone would only have been rated at £5. The rateability of "lands" may be very fairly summed up by the "rule of thumb" of our ancestors, viz., that everything in the parish which can be seen is rateable except woods, other than saleable underwoods, provided always that there is a beneficial use and occupation made of them, and that they do not belong to the Crown. "Houses" being expressly mentioned in the Act, in the same way that coal mines and saleable underwoods are mentioned, it might have been supposed, as in the case of other mines and other woods, that houses only are rateable and other buildings exempt. But, if ever such a construction has been contended for, it has not been held to be law. All houses, whether the dwellings of man, cattle, or animals, are subject to the rate. So are barns and granaries for the housing of corn or produce, warehouses, lighthouses, machine houses, and the like. So also are kilns, furnaces, factories, mills, bridges, and erections of every kind, with the following exception, viz., property occupied for the purposes of the Crown. Neither the Crown, nor the King, nor the Queen, being named in the Act of Elizabeth, is bound by the Act; and it has been held to follow that lands or houses occupied by the Crown, or for the purposes of the Crown, are not liable to be rated. This principle exempts from rates not only royal palaces, but also the offices of the Secretaries of State, the Horse Guards, the Post Office, and many similar buildings. Police Courts, County Courts, and even County buildings occupied as lodgings at the Assizes for the Judges, have been held to be exempt on the ground that, in effect, the Crown is in occupation by public servants, carrying out the purposes of the Government of the country. The Queen is the fountain of justice to all subjects of the realm, and buildings which are necessarily occupied for the purpose of administering justice and cognate objects, are within the exception, as buildings really occupied for the discharge of duties arising out of the prerogatives of the Crown. The Queen *v. St. Martin's, Leicester* (L. R., vol. 2, p. 493). The Queen *v. Castle View, Leicester* (L. R., vol. 2, p. 497). But, nevertheless, in the case of the Justices of Lancashire and the Overseers of the Township of Clichtham (Law Reports, Q. B. Cases, vol. 3, p. 14), it was held that buildings used as courts, lodgings for Her Majesty's Judges and other officers, lock-ups, and all other accommodation necessary for carrying on the civil and

criminal business of the Assizes; but, out of which a profit is made by letting portions of such building to the Corporation of a town, notwithstanding the Corporation use the building for public purposes, are liable to be rated in respect of, and to the extent of the profit received, whatever the occupation may be. Churches, chapels, and other places exclusively appropriated to public religious worship are also exempt. But the exemption does not apply to any part of such churches, chapels, or premises which are not so exclusively appropriated, and from which parts not so exclusively appropriated some person receives rent, or derives profit or advantage (3 & 4 W. IV., ch. 30). Tenements and hereditaments including lands, which are the property of and in the occupation of a Municipal Corporation in which the limits of the parish are co-extensive with the limits of the city or borough, and in which city or borough the poor are relieved by one entire poor rate, are exempted from poor rates, because it was considered that the imposition of the rate on the borough property would be of no advantage to the borough, as the same parties would be both receivers and payers of the rate (4 & 5 Vict., ch. 48). But, although this view was correct as regarded the particular parish or borough; yet, if such parish now forms one of a union of parishes assessable to the common funds of the union, according to the rateable value of the property comprised therein, under the Union Chargeability Act, 25 & 29 Vict., ch. 79, there are reasonable grounds of complaint on behalf of the other parishes in the union, as the exemption of the Corporation property in the one parish disturbs the equality of the basis upon which the contributions of the several parishes are founded. Notwithstanding this, it has been held in the case of the Queen *v. Mayor of Oldham* (L. R., Q. B. Cases, vol. 3, p. 474) that such property is still exempt, so that it is probable that the question will be litigated again, and this particular exemption will soon be abolished. Societies established exclusively for purposes of science, literature, or the fine arts are specially exempted by statute from county, borough, parochial, and other local rates; provided, nevertheless, that each of such societies shall be supported, wholly or in part, by annual voluntary contributions, and shall not, and by its laws may not, make any dividend, gift, division, or bonus in money unto or between any of its members; and provided also that it obtain a certificate from the barrister appointed to certify the rules of friendly societies (6 & 7 Vict., ch. 36). But it has been held that the statute exempts the society and not its property; so that, if the society is rated, its members must appeal (*Q. v. Justices of Birmingham*, 18 L. J., R. M. C., 83). The Linnæan Society, incorporated for the cultivation of the science of natural history and for the promotion of every kind of improvement in arts and sciences, has been held to be exempt (Linnæan Society of London *v. St. Anne's, Westminster*, 23 L. J., R. M. C., 148). So also has an institution for the collection and maintenance of a library of books for the use of the members and of persons who subscribed for the occasion only. But, an institution established partly for the amusement of its members, such as a concert hall, built and supported by subscription; or a library, a part of which is applied to the reading of newspapers, is not exempt (*Q. v. Brandt*, 20 L. J., R. M. C., 119; *Q. v. Gaskell*, 21 L. J., R. M. C., 29; *Russell Institution v. St. Giles-in-the-Fields*, 23 L. J., R. M. C., 65). A mechanics' institution, some of whose rooms are occasionally let out for concerts, lectures, and public meetings, is not exempt (*Purvis v. Trail*, 18 L. J., R. M. C., 57); nor is a subscription library, if a part of its premises are let off to another scientific society (*Earl of Clarendon v. St. James's, Westminster*, 20 L. J., R. M. C., 213). National schools, hospitals, dispensaries, and other similar properties held for public purposes only, where the trustees derive no personal pecuniary profit for themselves, have, until very recently, been considered to be exempt from rates; but the case of the Mersey Docks and Harbour Board *v. Jones* and another (30 L. J., M. C., 239), carried by appeal from a judgment of the Exchequer Chamber to the House of Lords, has established the contrary rule. Six of the judges assisted the Peers when the argument was heard, of whom, five expressed opinions that the exemption could not be supported. The remaining judge considered that the exemption had been established by a long current of authorities, and could not now be rejected. Since this decision was given, "The Sunday and Ragged Schools (Exemption from Rating) Act, 1869," has been passed, by which every

authority, having power to impose or levy any rate, may exempt from the payment of any rate for any purpose whatever any building or part of a building used exclusively as a Sunday school or ragged school. Much litigation has arisen, in connexion with the assessment of buildings, concerning the rateability of fixtures, trade plant, and machinery. It was decided in the case *Reg. v. Southampton Dock Company* (20 L. J., M. C., 162) that buildings to which machinery is attached for the purposes of trade, are assessable to the extent of their existing value, as combined with the machinery, whether such machinery be real or personal property. In the case of the *Queen v. North Staffordshire Railway Company* (30 L. J., M. C., 65) it was decided that "things so attached to the freehold as to become part of it;" and "things which, though capable of being removed, are yet so far attached as that it is intended they shall remain permanently connected with the railway or the premises used with it, and remain permanent appendages to it, as essential to its working," are rateable. In the case of the *Queen v. The Phoenix Gas Light and Coke Company* (L. R., vol. 1, p. 241) it was decided that the retorts, purifiers, gas holders, steam engines, and boilers are parts of the works which are absolutely necessary to the manufacture of gas, which is the purpose of the company's undertaking; that it was intended, when those things were erected, that they should remain permanently connected with the premises, and that they should remain permanent appendages to it, as essential to its working; and, if not forming part of the freehold, they are still so far connected with it as to be intended to be permanently attached to it, and, therefore, they ought to be taken into account, in determining the rateable value of the land and premises. Without the retorts, purifiers, steam engines, and gas holders the premises would be worthless for the purpose for which they were erected: the building would not be a gas manufactory at all. All these things are fixed, and so far annexed as to be intended to be permanent, and, being really necessary for the use of the premises as gas works, they therefore form part of the rateable subject. So in the case of a railway, although the sleepers are in no way fastened to the ground, but are laid on and packed up in ballast, and the rails are laid on and bolted to the sleepers only, nevertheless, it has been held that they form as many parts of the rateable hereditament, as does a house, the foundations of which only rest upon a bed of concrete (*Great Western Railway v. Melksham, J. P.*, vol. 34, p. 102). Utensils in trade and furniture are not rateable. The meters of a gas company were held, in the *Phoenix Gas* case already referred to, to be mere ordinary chattels, kept for the purpose of measuring the gas, and in no sense part of the gas works. In the *North Staffordshire Railway* case, things moveable, such as office and station furniture, were held to be chattels, and not rateable. In many cases, such things as a mirror fixed to a wall have been held to be furniture, and not rateable; but, a billiard table fixed to a floor has been held to enhance the value of the house to which it was attached, and in that way to become rateable. Power looms in a silk mill, portable and continually moved from place to place, but steadily by their feet being screwed to the floorings, are not rateable (*Reg. v. Overseers of Halsestead, J. P.*, 1867, p. 373). It was held that, although such fixtures are no doubt fixed to the freehold, they are, nevertheless, not so fixed as to make them part of the freehold, so that on a demise they would pass with the premises. "*Tithes inappropriated*," are those which have been severed from a benefice, and are now payable to some lay person or corporation. "*Propriations*," or "*appropriations of tithes*," are tithes severed from a benefice, and annexed to a spiritual corporation. These are the only description of tithes expressly referred to in the statute of Elizabeth; but, all tithes arising within the parish are rateable, and, every rent-charge payable instead of such tithes, is subject to all rates and taxes, in like manner, as the tithes commuted for such rent-charge have heretofore been subject (6 & 7 Wm., ch. 71, s. 69). *Coal mines*, in occupation in the parish, are rateable for what they produce; that is to say, at such a sum as they would let for. But, as has been already explained under the head of land, all other mines have been held to be exempt, because coal mines are especially made liable. *Saleable underwoods*: The statute of Elizabeth especially refers to saleable underwoods, and specially makes them rateable. In the early cases, saleable underwoods were defined as being "wood which grows

expeditiously, sends up many shoots from one stool, the root remaining perfect, from which the shoots are cut, and producing new shoots, and so yielding a succession of profits." But, in a recent case, *Lord Fitzhardinge v. Pritchett* (Law Rep., Q. B. Cases, vol. 2, p. 141), Mr. Justice Mellor has very clearly defined what woods are saleable underwoods within the meaning of the statute of Elizabeth. He says, "the question does not depend upon whether the woods consist of what are timber trees, either by general or local custom; the nature and quality of the wood is not the test; but, wherever the woods are treated so as to raise successive crops from the same roots and stools, and, whether the crops ripen, and are cut at intervals of ten, fifteen, or even thirty years, is immaterial; or, whether the woods consist of oak, ash, or elm, which are universally timber trees; or, of beech, which may be timber by custom; or, willow, the stools of which can be and are so treated as to produce a succession of saleable crops: in such cases, the woods are saleable underwoods." *Mode of valuing property liable to be rated*: There are two estimates required by the statute 6 & 7 W. IV., c. 96, which regulates parochial assessments, viz., "gross estimated rental" and "rateable value." The former is the rent at which the property might reasonably be expected to let from year to year, the tenant paying all usual tenant's rates and taxes and tithe commutation rent-charge (if any), the landlord bearing the cost of repairs and insurance and other expenses (if any) necessary to maintain the premises in a state to command such rent. The rateable value is so much of the gross estimated rental as remains after deducting therefrom the probable average annual cost of the repairs, insurance and other expenses necessary to maintain them in a state to command such rent, as aforesaid. The actual words of the statute are very simple when understood; but, it is probable that no words in any statute were ever more misunderstood, or ever caused more confusion and gave more trouble than they did. They are as follows: "No rate for the relief of the poor in England and Wales shall be allowed by any justices, or be of any force which shall not be made upon an estimate of the net annual value of the several hereditaments rated thereunto, that is to say, of the rent at which the same might reasonably be expected so let from year to year, free of all tenants' rates and taxes and tithe commutation rent-charge (if any) and deducting therefrom the probable average annual cost of the repairs, insurance and other expenses (if any) necessary to maintain them in a state to command such rent." Soon after the passing of this statute, viz., on the 3rd of March, 1837, the Poor Law Commissioners issued a circular defining gross rent as the rent which would be paid to a landlord who himself undertakes to pay all the usual tenant's rates and taxes with which the hereditaments or premises reuted by the tenant are chargeable, together with tithe commutation rent-charge, the expense of upholding the buildings in tenable repair, insurance against loss by fire, and any other expenses, if any shall exist, necessary to maintain such hereditaments in a state to command such gross rent. Net rent they defined as the amount which is received by or which remains clear in the hands of a landlord after all such taxes, charges, and expenses, as are above enumerated, shall have been provided for. Acting upon these definitions, many surveyors included in their estimates of gross estimated rental the whole of the rates and taxes usually paid by the tenant. For example, in the case of a house worth £100 per annum to a yearly tenant, the rates and taxes upon which amounted to £20 per annum, and the average cost of insuring, repairing, and maintaining the property £20 per annum, they called the gross estimated rental £120, the rateable value £50. So far as regards the mere payment of poor rates no injustice was done to the ratepayer; but, in the case of other uses made of the gross estimated rental it became apparent that the intentions of the Legislature had been misunderstood; moreover, valuations so made seemed to estimate the value of property in a parish unfairly and unnecessarily high. It very early became the practice to disregard the instructions of the Poor Law Commissioners and to omit all consideration of rates and taxes in making valuations, and, in 1859, the Poor Law Commissioners were advised by the then law officers of the Crown (Sir Fitzroy Kelly and Sir Hugh Cairns) that the term "gross estimated rent" meant the rent at which the property might be expected to let, the tenant taking the burden of rates and taxes and tithe upon himself. In other words, they were of opinion that the word

“free” in the statute must be considered as referring to rent and not to hereditaments. An attempt was made in the Union Assessment Committee Act, 1862, to remove the doubts which had existed; but, without much success so far as ordinary ability can comprehend it. Nevertheless, the opinion of the law officers in 1859 is now universally acted upon and generally understood. It must always be borne in mind that the rateable value is not the actual rent at which a property may be let; but that rent at which, after taking all things into consideration, it might reasonably be expected to let. Moreover, it must be remembered that the circumstances to be taken into consideration in estimating the value must always have reference to the period at which the valuation is made. A house which on the completion of a railway, or some other public improvement will be worth £100 a year, may, at the present time, be worth only £50 a year. While it is worth £50 it must be assessed at that sum only; but, as soon as the improvement takes place, the assessment must follow the increased value. Again, the rent reserved in a lease may not be evidence of rateable value. A property may possess a gradually increasing value, extending over many years. A lessee, in agreeing to pay a fixed constant rent, would average those circumstances. The rate must be made on an estimate of the annual value from time to time; low, when that value is small, and higher as it increases. Again, property may, from unforeseen circumstances, increase or decrease in value during the term of a lease. If it should increase, it would be unfair to the other ratepayers, who might not be similar lessees, if the assessment upon it were not increased; and, if it should decrease in value, it would be unfair to the lessee not to decrease the assessment. The term from year to year must not be misunderstood, as it sometimes is. It does not mean a letting for a year only, nor a letting on a yearly tenancy; but it means that changeable circumstances must be taken into account from year to year as they arise.

Valuation of Agricultural and Accommodation Lands: In addressing the Institution of Surveyors, it is quite unnecessary to attempt to explain the mode of valuing agricultural or accommodation land. Nevertheless, it is well to again point out that the rateable value is not the rent actually paid either on a yearly tenancy or under a lease; but that it is the rent which, all things considered, a tenant might be reasonably expected to pay for the year next following the making of the valuation. The late Lord Denman, whose judgments were always as clear as it is possible for judgments to be, in delivering judgment in the case of a brickfield appeal, says: “It may well be that, although at the end of the year the lessee has made so many bricks that he can afford to pay £150 in royalty to his landlord, yet he could not prudently, at the beginning of the year, contract, at all events, to pay more than £100, and, if so, the latter rather than the former will be the sum at which the land may reasonably be expected to let from year to year.”

In the case of accommodation lands, a piece of meadow land may be situated in the middle of another estate and in front of the drawing-room windows of the occupier's house. It is reasonable to suppose that, in such a case, the occupier of the house would give more rent for the meadow land than its value for agricultural purposes would justify, and, therefore, it possesses a corresponding rateable value; but, if such land becomes by purchase a portion of the other estate, it then possesses no greater rateable value than the adjoining lands of which, in fact, it has become part. Small pieces of land adjoining a town will often let at rents quite disproportioned to their agricultural value, and their rateable value is such a rent as they may, in that way, be reasonably expected to fetch, notwithstanding that exactly similar adjoining lands which form part of an adjacent farm can only be reasonably expected to let at their agricultural value. The difference between the gross estimated rental and the rateable value of land is very small, and in practice it has hitherto, for the most part, been disregarded; but The Valuation (Metropolis) Act, 1869, fixes the allowance in metropolitan districts at five per cent., and, therefore, it is presumed that such an allowance will very generally be made in all places in the future. It may be mentioned that, in the case of lands subject to tithes the amount of the rent-charge should be deducted from the estimates of both gross and rateable value, the tithe rent-charge being itself rateable as a separate hereditament.

Valuation of houses: The gross estimated rental of a house is that rent which a tenant might

reasonably be expected to give for the right to occupy it for one year, assuming that the landlord bore the expense of insuring, repairing, and upholding it. The net rateable value is the rent which a tenant might be reasonably expected to pay, who took upon himself the expense of insuring, repairing, and upholding it. The rent is the rent to be expected for the year following the making of the rate; but, the allowance for repairs is to be the probable average annual cost. To give but one instance: general painting, which occurs only once in seven years, is not to be allowed in the year in which it actually is done to the exclusion of all other years; but, a fair average annual charge on account of it is to be taken. In addition to the allowance in respect of indispensable repairs, an allowance is to be made in respect of contingent or future renewals. In the case of the Queen v. Wells (Law Reports, Q. B. Cases, vol. xi., p. 518), the most recent decision upon this point, Lord Chief Justice Cockburn stated that there seems no distinction in principle between the sum annually laid by to make good, when it shall become necessary, an inevitable loss by the destructive agency of time, and a fund laid by for an indemnity against a loss by fire or storm, or other peril, insured against.

Valuation of farm homesteads: In estimating the rateable value of farm homesteads, several matters have to be taken into consideration. For example: the buildings may be very much in excess of the actual requirements of the lands of a farm; but it is obvious that a tenant can only be reasonably expected to pay such a rent as the buildings which he actually requires would command. Even that rent may have to be diminished instead of increased, from the fact that the repairs and insurance of the larger buildings are more costly to the tenant than the repairs and insurance of buildings of the proper size would be. It may, however, happen that the occupier of such a farm may also occupy, as a separate rateable hereditament, land, either wholly without buildings, or otherwise deficient in that respect, in which case the rateable value to him of the buildings previously alluded to will be increased.

Valuation of trade premises, mills, factories, &c.: In estimating the value of trade premises, such as a factory fitted up with machines, a foundry with furnaces and forges, or a brewery with fixed steam engines and vats, the value of the machinery as enhancing the annual value of the freehold, of which it forms part, is to be taken into consideration. An important decision in respect of the rating of mills was given in the case of Staley and another v. Castleton (33 L. J., M. C., p. 175). The mill was fitted to its full capacity with the machinery useful and necessary for a cotton mill; a steam engine was fixed for the purpose of turning the machinery, and steam pipes from the boilers were carried through all the rooms in the mill for the purpose of warming them. Some of the machinery was fixed to the floors in order to its steadier working, while, in other instances, it was merely placed upon the floors of the mill. According to the custom of the trade, the machinery was in the nature of tenants' machinery, or fixtures. Before the American war, the property had been of considerable annual value as a cotton mill; but, in consequence of the state of trade during the war, the mill was closed. Nevertheless, the machinery was kept in it, and a man was employed to attend to the fires for the purpose of keeping up a proper degree of warmth, and to keep the machinery in a state of repair. The Court held that the mill was thus used as a storehouse for the valuable machinery that it contained, and was to be valued for assessment to the extent of the rent which it would command as such storehouse. Following this decision came another important case, Harter v. Salford (34 L. J., M. C., p. 206). The appellant for many years carried on the business of a silk manufacturer; but, in 1863, he gave up business with the intention of never resuming it. The mill and premises were advertised for sale. The decision was that, although not in use as a mill, the buildings were to be valued as storehouses for machinery. Hotels, refreshment rooms, Epsom and other race stands, canteens and similar trade premises which, by reason of their special situations, command rents in proportion to the extent of the trade which can be carried on in them and nowhere else, must be valued in connection with their trade receipts, *i. e.*, from the gross receipts must be deducted the working expenses necessary to earn the receipts, allowances for trade profit to the tenant, for interest on the capital which he must necessarily employ, and for risks and casualties. The balance is the rent which he may reasonably be expected to be willing to pay to his land-

land as rent. In valuing all descriptions of house property, the question constantly arises—is cost ever the measure of the rateable value of property? In giving his decision in the Mile-end Old-town case, Lord Denman says, “the outlay of capital might furnish no criterion of the rent a property should yield, since such capital may have been injudiciously expended, and what was costly may have become worthless by subsequent changes.” It should be observed that Lord Denman did not there say that cost was never the measure of value, and, obviously, it sometimes is. Assume, for example, that the guardians of a Union are in want of a workhouse, and that some landowner within the Union is possessed of a building exactly suited for such purpose, but that he requires a rent of £1,000 a year for it. The guardians find, upon inquiry, that they can build a new workhouse and provide the land at a cost of £10,000, and that they can obtain the money at the rate of 5 per cent. per annum, which will equal a rental of £500 per annum. They elect to take the latter course and build the workhouse, the rateable value of which is £500 per annum, because that sum is the highest rental which it would be reasonable to expect them to give. Assume, however, on the other hand, that the landowner was unable to get a tenant for his building, for any purpose, at a higher rent than £250 instead of £1,000 a year, and that he therefore would be willing to let it to the guardians at £250. In this case, the rateable value would be £250 per annum only, because it would not be reasonable to suppose that the guardians would pay for any other similar building a higher rent than that at which they had been able to take this from the landowner. In estimating the rateable value of bridges, as in the case of railways, it does not follow that any direct receipts arise in the parish which is the subject of the valuation. The case of the *Queen v. the Hammersmith Bridge Company* is one in point. It was there held that, although the whole of the receipts were in the parish of Hammersmith, yet the bridge itself was the direct source of the rateable value, and that such net rateable value when duly ascertained was to be apportioned between the parishes according to the length of the bridge in each.

Valuation of Tithe Rent Charges: The rateable value of a tithe rent-charge is the rent which a hypothetical tenant might be reasonably expected to give for it annually, such tenant having to pay the usual tenants' rates and taxes upon such tithe rent-charge and to derive some remuneration for his time and attention in collecting it (*Queen v. Capel*). In the case of a clergyman, whom by reason of the number of parishioners and the value of the incumbency the bishop of his diocese could compel to keep a curate, the reasonable salary of such a curate was, in the case of the *Queen v. Goodchild*, directed to be allowed; so also in the case of the *Queen v. Lamb*, where the duties of the incumbent were greater than one man could perform, the curate's salary was directed to be deducted; but, this allowance for a curate has, by the recent case, the *Queen v. Sherford*, been overridden, so that it must now be taken that such a deduction cannot be allowed.

Valuation of Coal Mines, &c.: Coal mines, brick fields, clay pits, slate quarries, &c., which involve the removal of portions of the soil, must be valued according to the rent and royalty which it is reasonable to expect the occupier would pay the landlord for that species of occupation. In the case of the *Queen v. Westbrook* it was held that a royalty so paid must be considered as a portion of the rent.

Valuation of Saleable Underwoods: Saleable underwoods must be valued at the rental at which they might reasonably be expected to let, according to the quality of the wood and the situation of the land. The valuation of railways, gas, and waterworks involve considerations so special that the subject is reserved for a separate paper.

Mr. T. S. WOOLLEY had great pleasure in moving a cordial vote of thanks to Mr. Ryde for his clear and able paper, which was so exhaustive that, if the discussion was to be confined to the topics therein dealt with, namely, the incidence of rating under the existing statutes, and the general principles on which the different kinds of property at present rateable should be assessed under those statutes, there was nothing further to be said. He agreed most thoroughly with the author's views, and would take this opportunity of mentioning with regard to the apparent divergence of opinion between himself and Mr. Ryde, on a former occasion, relative to the position which tithe rent-charge bore to rates, that they were now agreed in this, that the rent-charges are rateable to the same extent as

the tithes they represent were before the commutation took place, and in no other sense.

Mr. T. HUSKINSON, in seconding the vote of thanks, said the subject of rating was one of extreme and growing importance, and especially so in rural districts. There was hardly a subject within the province of the surveyor which required such a combination of legal knowledge and acquaintance with the value of property as rating, and so much tact and common sense in applying that knowledge.

Several members having expressed a wish that the discussion should be adjourned, to afford them an opportunity for the necessary consideration of the paper,

Mr. E. J. SMYTH suggested that it might be desirable, in the event of the discussion being adjourned, to extend their views in some measure beyond the subject of the paper, strictly speaking, and to express their opinions as to the expediency of changes either in the mode of assessment or in its distribution. All must be well aware, as agents, that there had been charged upon the occupiers, under the guise of assessment to the poor, a great number of items, which, in the opinion of many persons, should rather come under the head of imperial taxation. A considerable portion of the difference between the 3s. 6d. or 4s. in the pound which was paid now and the 2s. 6d. which was paid formerly was occasioned by charges which were hardly of the same character as those which used to be imposed. He thought, therefore, that the discussion should embrace, not only the history of the past in these matters, but should also elicit, if possible, the course which it was expedient to take with regard to the future.

The CHAIRMAN, in putting the motion for adjournment of the discussion on the paper of the evening, said that it had very recently come to his knowledge that a commission was either nominated or about to be nominated for the purpose of determining at what proportion, if any, the freeholders of property, let at ground rents, should be assessed in respect of the rates and taxes now imposed, or about to be imposed, on their lessees. It was a serious and important matter for ground landlords. He did not know whether it was desirable to discuss this matter, but it might be desirable to inquire into this subject before the next meeting, and then take it into consideration, and be prepared to discuss it in conjunction with Mr. Ryde's exceedingly able and exhaustive paper.

Mr. RYDE suggested that the course proposed was a little unusual. If the question of the incidence of local taxation were to be referred to, it would open up an interminable field for discussion. For instance, it might be suggested that not only should a proprietor be rated for his ground rents, but that stockholders should be rated in respect of their stock in the Funds; and that would involve the question whether the rating should be in the parish in which the Bank of England was situated, and of which it occupied the entire area, or whether the rate should be made in some other parish. He suggested that they should first finish the discussion of his paper, and then, if they pleased, enter upon the other topics referred to.

An adjournment took place accordingly. At the second meeting, Mr. John Clutton, the President, in the chair, the discussion was opened by

Mr. E. J. SMYTH, who said the only point which seemed to him to require a little further explanation was with regard to the precise interpretation of the wording in the first Act. Mr. Ryde seemed to consider that the interpretation of the first section, which obtained from the year 1837 until the decision of Sir Fitzroy Kelly, was accidental, on which decision, after an interval of twenty-two years—viz., in 1859—the present accepted interpretation was substituted. But he (Mr. Smyth) believed that the true history was that it was intended by the Poor Law Board that, under that Act, the first column in the assessment book should contain the annual value of any hereditament, after deducting only the occupier's return on his capital, and not the rates, nor the tithes, nor any outgoings. Under the existing system, the first column contains an annual value arrived at after deducting the rates and taxes paid by the occupier. It was undoubtedly the intention of the first Act that the first column should contain all that it contains at this time, with the addition of those taxes. It was supposed at that time that the owners would always take upon themselves the payment of tithes, and it was thought desirable that they should take upon themselves the payment of all other taxes; but the owners did not see it in that point

of view, and not only abstained from paying the other taxes, but almost invariably threw upon the occupiers the payment of the tithe rent-charges also. It was found, therefore, that this object of the Act was not obtained, and, after an endeavour extending over twenty years, the attempt was given up, and there came then the different interpretation given by Sir Fitzroy Kelly and Sir Hugh Cairns, which has subsequently been adopted. He ventured to suggest at the last meeting that it might be expedient to consider in this discussion the desirability of changes, either in the mode of the assessment or in its distribution. As he then said, it appeared to him that a considerable number of charges were now made, particularly in respect of agricultural property, and paid under the head of "poor rates," which ought to come under the head of imperial taxation. At the same time, he did not at all concur in the view that all rates ought to be charged on income-tax, and thought any such change (which, as they knew, was advocated by influential representatives of the agricultural interest) not only inexpedient but hopeless. As agricultural estates had always hitherto assisted in maintaining the poor and the highways, and had been purchased and sold under the expectation of doing so, it would be difficult to make out a case for any change by taking off those charges; but he thought that the other charges which had been imposed, and were now charged under the head of "the poor," should rather be paid out of the Consolidated Fund.

Mr. E. P. SQUAREY would illustrate the subject by stating the facts of his own case. He held his farm on a sixteen years' lease, and when he took it, his parish was a close one, Lord Radnor and himself being the only ratepayers. The actual rent of the farm was £1,300 a-year, and the rates only £75 a-year. No doubt he had occasionally employed incompetent men at higher wages than they could fairly earn, simply to keep them off the poor-rate, and the actual outgoing might therefore be put a little higher. The Union Chargeability Act came into operation, and his expenditure was increased from £75 to £180, on the average. He felt this to be a hardship, and he appealed to the Assessment Committee to reduce his rateable value, which he should say had been assessed at his rent, *minus* 10 per cent. He asked that it should be reduced by the excess amount of rates he was then paying over what he paid when he took the farm, and then a further reduction of 10 per cent. on that amount. After a good deal of discussion, the Board consented to reduce his rateable value to the lower terms; and on those he continued to pay. He mentioned this as an illustration of the folly of admitting rent, without considering what rent meant, as the basis of annual value. He agreed with Mr. Smith that some injustice was done to the occupiers of farms, by compelling them to pay, under the head of "poor-rate," charges which were of a purely philanthropic or sanitary character, and which were not contemplated when the tenancy commenced. He referred more especially to police rates and lunatic-asylum rates, in which the whole public was as much interested as the owner and occupier of the land. He thought, therefore, that in the interest of all parties, the whole question of the basis of rating demanded reconsideration.

Mr. J. H. LLOYD said he was engaged as referee in a case of the rating of a colliery producing a large annual return, and he had various schemes propounded to him as to the principle on which this description of property should be rated. Looking at the importance of that interest, more especially in the midland, northern and western counties of England, and in South Wales, it was a question of great magnitude, and by no means free from difficulty; and, with great respect to Mr. Ryde, he considered the question had been treated by him in a somewhat perfunctory manner; for all he said (p. 269) on that subject was—"Coal-mines, brick-fields, clay-pits, slate quarries, &c., which involve the removal of portions of the soil, must be valued according to the rent and royalty which it is reasonable to expect the occupier would pay the landlord for that species of occupation." He confessed that he was rather startled by this passage, because the rent and royalty paid to the landlord (if by that expression was meant the sum payable to the proprietor of the land and the underlying mineral) could not be a reliable basis of the rateable value. Royalty was a proportion of the produce raised, reserved to the mine-owner; rent was that which was paid for the area of ground occupied in the working of the

mine; but that the rent or royalty, either separately or together, could be the rateable value of the coal mine, seemed to him an untenable proposition; because it might be that the owner of the mine leased it, having incurred the first expenditure for winning the coal, or it might be that the lessee himself incurred that expenditure; and the royalty of course varied materially according to these varying circumstances. He understood the principle of rating to be, that whatever was the value of the undertaking, in its then present condition, was to be the first item of the valuation. Say, for instance, he had so many acres of coal under a surface area, as ascertained by borings. If a lessee undertook to develop this he would pay a royalty of so much. The lessee had then to sink his shaft, put up machinery, and incur other expenses; and when thus developed it became totally different property. The stereotyped principle of rating was what a man would be willing to give as rent, undertaking all the costs and risk, and reserving to himself a fair interest on the working capital required and a reasonable profit on the working obtained. That was the saleable value, and he apprehended that was as applicable to coal mines as to other property. His friend Mr. Ryde, had studied this subject a good deal, and he had hoped to have some light from this Paper; but the only gleam of information he had derived was in the paragraph which he had quoted. He deemed it a subject which deserved great consideration, and he held in his hand a very interesting pamphlet (lately presented to the library), by Mr. Hedley, of Sunderland, who had great experience in valuing collieries. Mr. Hedley gave, in the first place, the estimated gross value of coal produced at the pit's mouth, then he gave the working expenses and the expenses of the tenant for management. These were charges against the gross proceeds. Then came tenant's capital and plant. Mr. Hedley took a percentage upon that, reducing it to an annual interest. Then he took 25 per cent. for tenant's profits, which he (Mr. Lloyd) thought too high, and there was then to be added maintenance and renewal of the tenant's plant, and so at last they got at the net rateable value. His object in rising was to get from Mr. Ryde, if possible, something a little less meagre than the information he had given them in his Paper on the subject of the rating of coal mines.

Mr. W. EVE desired to refer Mr. Ryde to the passage in his paper (p. 264), in which he said, "The difference between the gross estimated rental and the rateable value of land is very small, and, in practice, it has hitherto, for the most part been disregarded; but The Valuation (Metropolis) Act, 1869, fixes the allowance in metropolitan districts at 5 per cent., and therefore it is presumed that such an allowance will very generally be made in all places in future. Now Mr. Ryde had expressed no opinion as to the wisdom of that course, and he hoped to hear that he did not approve of it. The value of land might easily vary from 5s. to £5 per acre, and if 5 per cent. were taken off in each case, it was evident that in one case they took off twenty times more than in the other for exactly the same repairs executed. The same observation applied with more force to houses, and he had ventured to lay these views before Mr. Goschen, when the bill was before the House. He had taken the trouble to investigate the rating of one house in Cornhill, and found that, taking off 20 per cent., as was done in that instance, the rental value being £500, the rating was £400. Now, in his judgment, the land in that case was worth £400, and the structure only £100, and for the repair and insurance of that structure, worth £100, they took off a sum equal to the annual value of it. The same thing applied to land, and he thought it was most unfair that any arbitrary per-centage of that sort should be laid down by the Metropolitan Act. If a schedule of deductions was to be adopted it must, as to house property, apply to the structural value only, and not include the value of the ground, and, as to land, it must be an acreage deduction, and not a per-centage on the value.

Mr. C. STEPHENSON said there was no question that the system of rating was not understood by the public authorities. The practice of parishes (even under the same surveyors and assessors) was inconsistent, and he thought that considerable time would elapse before rating could be made uniform or satisfactory. He found that in most districts the rating of a house was governed by what happened to be the rental of the adjoining house, with additions or deductions arising from any difference in structure. In the case of houses in new streets

the Assessment Committees and assessors were all at sea, and their only basis of rating seemed to be what people had been foolish enough to give as ground rents added to interest on outlay. This they call a gross estimated rent, and from it they deduct an arbitrary per-centage of from 5 to 20 per cent., and call that the rateable value. Such a system could not find favour, nor last for the time contemplated by the new Act, viz., five years. With regard to Mr. Squarey's own case, that ought to be put before the Committee of the House of Commons on Local Taxation, now sitting. [Mr. Squarey said he did submit it to them.] It seemed to be the view of that Committee that some of the present and future taxation of the country should be removed from the occupiers and put on the shoulders of the freeholders of the land. Mr. Squarey's case, he thought, proved that the owners of the land, as freeholders, did now bear the brunt of the taxation; though in the case of leases, where arrangements were made between the freeholder and the occupier, the occupier for the time being bore the burdens. Any attempt to put a further burden on the freeholders was most unjust and unfair.

Mr. J. FISHER said that, with respect to the rating of mines, his practice had been to ascertain the productive power of the land while being exhausted as a coal mine as a basis for the assessment, in the same way as for brick-earth or gravel; but when it is exhausted, the land reverts to an inferior value. It may be, in some cases, so well preserved that the land is of nearly the same value as it was before it was opened; but while the land has that extra production in it, the occupier is liable to be assessed on a proportion of the profit that accrues during the time of the occupation. That was a principle which he believed to be uncontroverted. As the profits accrue the liability to assessment occurs; they run together, and when one ceases the other does so. He thought it a fallacy to say that there was any right to an allowance on account of the exhaustion of the soil; it was only a temporary assessment, and the land had to be assessed at as much as it was producing at the time. In his practice, the want of a competent tribunal for the settlement of these questions had much struck him. Assessment Committees differed very much in the views they took of the questions brought before them, and there was very little certainty as to the decisions they came to. He also found that the ultimate tribunal of the Quarter Session was almost as unsatisfactory—considering the power it has, it was almost worse. The courts of Quarter Session differed so much in the views they took, that he thought it extremely desirable that there should be one common tribunal to which mixed questions of law and fact, such as often occurred in matters of rating, should be taken. He would illustrate what he said by mentioning a case within his own experience. He had an appeal before the Sessions, and, in making a claim for deduction in respect of some every-day expense, in the nature of repairs done by the landlord, one of the magistrates said to him, "Do you mean to contend that the landlord's repairs are a deduction from your rent?"—evidently believing the proposition to be a great fallacy, which he could not be expected seriously to entertain. The decision in the case was based upon the view which this magistrate took. He (Mr. Fisher) was quite sure that if the appeal had been heard in an adjoining county, the decision would have been exactly the reverse. A case was refused, so that there was no opportunity of having what was laid down reviewed. Another fact bearing upon the necessity for such a common tribunal was the unwillingness of Assessment Committees to undertake the full amount of the duties they were appointed to perform. He was a member of the Assessment Committee of the Union in which he resided, and they said, "We are not a body of valuers, we must take for granted what we are told," and they shirked their duty in that way. It must be remembered that an Assessment Committee was nothing more than an aggregation of parish officers, who perform for a Union what overseers perform for a parish; but sometimes, from want of local information, indolence, or other causes, the duties were performed in a very unsatisfactory manner, and he hoped that before long officers would be appointed to see that these matters were properly investigated before a competent tribunal.

Mr. C. CADLE wished to mention that, under the statute of Elizabeth, personal property (in the shape of stock-in-trade, which at that time was almost the only personal property known) as well as real property was rateable; and there was now, he believed, an Act of Parliament passed every year

exempting such property from rating. He had experienced some difficulty in dealing with accommodation land and game farms; because, with regard to the former, the Act recites the rating is to be at what the land "would reasonably let for." If a man chose to give an excessive rent for accommodation-land, it was not fair that the Assessment Committee should assess him upon that rent—a tenant at an excessive rent would probably take everything off the land he could, and so impoverish it—but the rating was to be based on a rent which would admit of the land being kept in a state to command such rent. The same remarks applied to a game farm. If a man gave 10s. an acre less rent, because the land was burdened with game, the valuer ought to rate the farm at what it was reasonably worth, and the Assessment Committee had no right to make an allowance in respect of game, but ought to put it at what it is worth to let. Some few years ago the question of not including tithe in the gross estimated rental caused a great stir, and the recent decision of the law officers of the Crown seemed to be a wrong one, because, in valuing land, they must value it at its worth in full, including the tithe, and if any tithe is payable, deduct it. In a field valuation of a parish, if the tithe were not taken into account, injustice must be done to someone; therefore, to make a proper valuation three columns were required, instead of two, in the valuation book—the rateable value column, the gross estimated value column, and a third one for the gross estimated rental. What can gross mean, unless it includes everything? Another difficulty was the question of larch plantations. A good deal of larch was grown in Shropshire, and exemption from rating was claimed for it. It seemed, however, to be an injustice to other ratepayers if a field were taken out of rateable occupation thereby. For a few years it might produce little or no income; but, after a time, a large profit accrued to the owner, by the thinning out of the young trees; and, according to recent decisions, such plantations did not come properly under the designation of "saleable underwoods," which were liable to be rated. Perhaps Mr. Ryde would favour the meeting with his experience, with regard to the practice of water-power. He would also call attention to the practice of Assessment Committees in making deductions. The rule was to deduct 10 or 15 per cent. from farms and buildings together; but, if a man happened to have land in one parish and farm buildings in another, he only got 2½ per cent. deducted for the land, and 10 per cent. for the house and buildings. That was an injustice, for his neighbour would get a deduction of 10 per cent. on both land and buildings when situate in the same parish. What was wanted, was that Boards of Guardians and Assessment Committees should each appoint a surveyor to act on their behalf in these matters; and, until they did so, they would neither satisfy themselves nor the country at large.

Mr. P. D. TUCKERT said he had just had an opportunity of looking for a few minutes into Mr. Hedley's pamphlet on the "Rating of Coal Mines," and it seemed to him that Mr. Ryde's statement on that subject, although it might not be very full, agreed substantially in principle with the views expressed more in detail by Mr. Lloyd. He had no doubt that Mr. Ryde, in his reply, would tell them he had not meant to be understood that a coal mine was to be rated upon the actual rent and royalty paid, but upon the rent and royalty which might reasonably be expected to be paid; and those calculations of Mr. Hedley's which Mr. Lloyd pointed to might, he thought, be shortly summed up in two words—as the rent or royalty—(whichever form it took) which could be reasonably realized by the coal mine, deducting a fair allowance for repairs needful to maintain such rent and royalty. There was the rent paid for the mine, and interest on the money expended in sinking the shaft, and on the plant, &c., whether provided by landlord or tenant, which must be taken in the light of rent, and from the total so arrived at a deduction was made on account of repairs, thus coming simply to the established principle of rating for all descriptions of property. With regard to larch plantations he might mention that, some years ago, he was engaged (in conjunction with another member of this institution) in the valuation of the parish of Farnham, where larch was grown to a considerable extent, and cut young for hop-poles. It was then considered that, as they did not grow from old stools, these plantations could not be regarded as underwood, and they were not assessed. Care was taken at the time to get the best information as to the then

state of the law upon the point, and he did not remember that any decision had since been given altering it; though he knew it was one which had often been a subject of discussion amongst those interested.

Mr. REX asked Mr. Ryde to explain, in his reply, the apparent inconsistency of two paragraphs in his paper, which were as follows: On page 263 he said, "The term from year to year must not be misunderstood, as it sometimes is. It does not mean a letting for a year only, nor a letting on a yearly tenancy; but it means that changeable circumstances must be taken into account from year to year as they arise." Then, on page 265, "The gross estimated rental of a house is that rent which a tenant might reasonably be expected to give for the right to occupy it for one year."

Mr. J. W. PENFOLD, the Secretary, with reference to the schedule of deductions in The Valuation (Metropolis) Act, pointed out that they are put as the *maximum* deductions to be allowed in the several classes of property. There was no reason, therefore, why, in such a case as Mr. Eve mentioned, the proper per-centage should not be taken from the £100 a-year, the value of the structure, and the £400 a-year ground rent be left without any deduction whatever. No doubt the practical objection to a schedule of deductions was, that the Assessment Committee applied it by a rule of thumb, and deducted the given per-centage all round. A competent surveyor would deal with each case on its own circumstances, and if such advice were always obtained there would be no need of the schedule at all. So far as he was able to see, one column for net value ought to serve all purposes. The gross value column seemed to be only for the inhabited house duty, property tax, &c., which it would be much more equitable to assess on the net value. He presumed the Legislature was aiming at such a centralization of assessment and appeal as had been suggested. The Valuation (Metropolis) Act provided that the assessments for all rates and taxes should be from one valuation list, and all appeals be brought to one tribunal. This would get rid of the annoyance and injustice which at present existed of many rates and taxes being assessed on different valuations, with a separate tribunal of appeal to each.

Mr. EVE said that he was aware the scale in the schedule alluded to was that of the maximum per-centage, still he had found, in several examples he had worked out, that the margin of deduction for buildings and land produced, in combination, a different result to the margin given for buildings and land separately, and must therefore be incorrect in principle. If there were to be a per-centage at all, it should be calculated on the structural value of buildings, and not include the value of the ground on which they stand.

Mr. E. RYDE, in reply, said that he had expected that the discussion would have assumed more strongly two phases. He had anticipated a discussion on his paper, and on that more important subject, which was now occupying the attention of a Parliamentary Committee. No speakers, with the exception of Mr. Smith and Mr. Squarey had touched upon the latter question—the incidence of rating. He gathered from his remarks that Mr. Smith considered the incidence of local assessment about right where it was. That, as parties have bought land subject to all these charges, there would be considerable injustice if the charges were removed from the land and imposed in other ways; and there was a great deal to be said in favour of that view. Take, for example, two houses—one at the east and the other at the west end of London. The house at the west end, where the rates were low, would command a larger price than that at the east end, where the burden of rates was greater; therefore, when men talked of equalizing rates, it only meant robbing Peter to pay Paul. The real question which presented itself was—Should the owners of landed property be called upon to bear almost exclusively the burden of local taxation? It seemed to be in the minds of the Committee now sitting, that part of the burden should be put upon the landlord for the relief of the tenant. But the landlord bore it all now. It was quite clear, if a farm were worth £100 a-year, and the taxation were £20, it is worth £120 as against the tenant. If the taxation were only £10, he would be bound by competition to give £110 a-year rent; so that rent and rates constitute the value of the farm; and if the landlord did not bear the local taxation he would get the gross value in rent. It might fairly be argued that portions, at all events, of the local taxes should no longer fall upon the real property of the district. For instance, when

the burden of repairing the highways was first put upon real property, the owners and occupiers of land made the most use of the highways. But now it often happened that a man who was worth £200,000, without possessing an acre of land, made as much use of the roads as the owners of real property, without being called upon to contribute towards their maintenance. This would not be the case if the repair of the highways were made an imperial tax. The remainder of Mr. Smith's speech had reference to the intention of the Legislature with regard to the mode of filling up the gross column of the assessment. Whatever that intention might have been, the practice had obtained, long before the date of the opinion of Sir Fitzroy Kelly and Sir Hugh Cairns, of dealing with the gross column as we do now, by omitting the addition to it of the rates and taxes. With respect to the remarks of Mr. Squarey, who had informed them that he formerly paid £75 a-year for rates in respect of a farm which he held at a rental of £1,300, he must express his surprise at the smallness of the amount; for it was little more than a shilling in the pound. He thought that what Mr. Squarey had said would go far to substantiate his view that the landlord actually pays the rates. Mr. Squarey's words were: "When my rates were £75, my farm was worth £1,300 a-year. Make my rates £180, and my farm is not worth so much by the difference between £75 and £180." In effect, he would not have given so much for the farm if he knew the rates would have amounted to £180. That agreed precisely with what he (Mr. Ryde) had said, that the rent and the rates together made up the real value. But a tenant in taking his farm was bound to calculate on having to pay the *proper and usual* tenant's rates and taxes; and, therefore, if his farm were rated exceptionally low, he must not complain of excessive rent if, after that rent had been fixed, the rating was raised to a par with the rest of the Union.

Mr. SQUAREY reminded his friend that he stated his parish was a close parish, and that no other person was rated in the parish. The Union Chargeability Act was that which raised the rates on his farm.

Mr. RYDE now came to the speech of Mr. Lloyd, who had objected that he had not gone sufficiently into the question of the rating of coal mines. His general answer was, that in consequence of the length of his paper, he had been induced to treat that branch of the subject as concisely as he could; but, shortly as he had treated it, he believed that he had included the whole of the liabilities connected with that class of ratings; and though he had not read Mr. Hedley's pamphlet, to which Mr. Lloyd had referred, yet looking through it cursorily, he saw nothing in it at variance with what he had said in his paper. Mr. Lloyd represented him as saying that the rent and royalty actually paid to the landlord constituted the rateable value of the mine. That was a misapprehension. However badly he might have expressed himself, there would be found in his paper this paragraph as a safety-valve: "It must always be borne in mind that the rateable value is not the actual rent at which a property may be let, but that rent at which, after taking all things into consideration, it might reasonably be expected to let." What he meant was that the reasonable rent and royalty at the time the valuation was made was the rateable value. If money had to be expended upon the mine to make it productive, that must be taken into consideration; and they could not rate the coal mine till there was a beneficial occupation in it. It does not matter by whom the expenditure is made, whether by the landlord or the tenant—that becomes a transaction between landlord and tenant—if the latter has to make the outlay, he will not pay so much rent; but the rateable value remains the same. He had quoted a judgment by Lord Denman to the effect that the rateable value was the royalty which it might be reasonable, at the beginning of a year, to expect that a tenant would be able to pay; and not the royalty, which, at the end of the year, experience had proved he could pay. But, notwithstanding that judgment, he (Mr. Ryde) apprehended that there was nothing to prevent the experience of a past year being taken as a guide to the assessment for another year. He quite agreed with Mr. Eve that deductions based on a schedule of per-centage were entirely wrong in principle. Take the case of an old wooden house for which a man gives £50 a year; it would constantly need repairs; the 10 or 20 per cent. deduction would be totally insufficient, and it might even be that the expenses of repairs

amounted to as much as the whole rent. Take the case, on the contrary, of a new brick building, in respect of which the same deduction is made for repairs; it becomes much more than sufficient for the purpose. He did not agree with Mr. Penfold that any surveyor or rating committee would in practice make less than the maximum allowance for repairs, set forth by the Act of Parliament. He quite coincided in the opinion that some of the tribunals to whom appeals were made knew little about rating, and that there was very great variation in their practice. A new tribunal had just been created within the metropolitan area; how that would act they had yet to learn. Practically, a great deal would depend on the chairman; but they must not expect that he would always decide as they individually wished him to do. The mode of rating coal mines in South Wales had been explained by Mr. Fisher, who laid down the principle as an incontrovertible one that coal mines should be rated according to their production of profit. He (Mr. Ryde) considered that to be an erroneous principle. The question was what might the tenant be reasonably expected to give for the mine; and though the tenant paid a fixed rent, and the rest in the shape of a royalty, they had still to ascertain what he might reasonably be expected to pay, and put that as the rateable value. If it were in a state that no tenant would pay rent for it, there could be no rateable value; but the reasonable rent which a tenant would pay was that which was to be assessed. When the coal was all gone it ceased to be rated as a coal mine, and thus applied also to a brick field or a stone quarry. It had been said by Mr. Cadle that a man paying an unreasonable rent ought not to be rated upon that rent, and he quite agreed with him. He might give three times the value of the land, but that was not the rateable value. Nevertheless, they must not assume that a man rented accommodation land at the same price as land which formed part of a farm. The word "reasonable" must be kept in mind throughout the whole question. With regard to water-power, it was the additional rent which a property would let for with that advantage, above that for which it would let without it, which was to be rated.

Mr. LLOYD: Supposing that the power has not been used, but exists, and is potential. Assume that you have a property on a stream of water in a manufacturing district, which might come into use for water-power. Does that, in your opinion, enhance the value of the property?

Mr. RYDE: It does not become rateable until it is brought into use. With reference to larch plantations, where they were planted for hop poles, it was not the practice to rate them, as they are not considered to come under the designation of "saleable underwoods."

Mr. CADLE remarked that the thinnings of the trees, necessary for the growth of those which remained, were disposed of, and yielded profit to the owner.

Mr. LLOYD: Supposing you got, not an annual but an accommodation profit, does not that enhance the value of the property?

Mr. RYDE said that timber was not rateable. In the case of cutting poles he believed there had been no decision. They were not "saleable underwoods." He had now only to say a word as to what fell from Mr. Rex, with respect to what he considered an inconsistency between two paragraphs of his paper. In no part of the paper was it stated that the rateable value was the rent which a tenant might be expected to pay for one year's occupation only. "No man would rent a railway and stock it for one year's occupation." That was not what was meant, but that they were to take the property at the rent it might reasonably be expected to produce in the year; assuming that the rate was going to be adjusted from year to year according to circumstances. By a parity of reasoning no man would take a large mansion and furnish it for one year. Assume there was to be a gradually increasing value, with or without a lease, that a house was worth £100 the first year, £200 the next, and £600 the next, they had to take into account in each year the special circumstances of that year. He concurred with Mr. Penfold that the house duty and other taxes would be better taken on the net value than on the gross. If a man had £100 a-year from land, with no outgoings, he was assessed £100 a-year to the property tax; if he had £100 a-year from cottages he was still rated at £100, though he had to spend £20 or £30 for repairs. With regard to game farms, he considered that he had treated the subject very fully in his paper.

The PRESIDENT said that he understood the Act of Elizabeth, in exempting timber from rating, applied only to oak, ash, and elm timber. And, with regard to other plantations, he had always paid rates upon plantations when profit was derived from them. It might be wrong, but that was his experience. With reference to Assessment Committees, many years ago, being in Ireland on a drainage commission, he spent a considerable time with the head of the Valuation Department, and he became so impressed with the importance of having a central control over that class of assessment, he was satisfied that without a controlling body of the kind the assessment in this country would never be equal. He had, on one occasion, the task of looking through the whole assessments of the county of Norfolk, for militia-rate purposes, and he found that the assessment varied between half the annual value and an excess of the annual value. He found, however, that the farms were almost universally under-rated, while the houses in the towns were over-rated. He was convinced, as he had already said, until they got a central body, and the assessments were made by competent surveyors, it would be in vain to look for equitable assessment in this country. These Assessment Committees were almost entirely controlled by rent. In one case, he found a farm was let to a tenant, subject to the tenant paying all charges, including repairs and materials for the same; in another, the landlord found all materials and labour; and these instances were treating in the rating as being equal. The heavy burdens upon land have made it the more important that property should be equitably rated. He did not say he thought the land should bear the whole burden; it was now so large and important a question that other property should bear a portion of those burdens which were made for general purposes, and not as pertinent to the land only. He did not think there could be a doubt on the mind of anybody that the landlord bore the whole charge. For what was rent? It was the residue, after all charges were paid. Therefore, in fact, the landlord did pay all charges. It was true that, as lessee, the tenant might hold part of the fee; and that was the only conflict about the rating of coal mines. It seemed to him that the man who took the original lease, with covenants that he shall lay out a considerable sum of money, should not be rated at the amount he paid, but at the price at which it would let in the position in which the property was then found. With regard to the Metropolitan Assessment Act, it struck him that the scale of maximum deductions fixed by that Act was put in to limit the power of the Assessment Committees who made the valuations, so that they might not take off a larger amount than ought fairly to be deducted. If there had been a central control, no such limitation would have been placed in that Act of Parliament. He had been asked to give evidence before the Committee now sitting, because he was supposed to have a leaning in favour of a part of the burdens being placed upon the landlords. Having lived for three or four years in Scotland, he found that in the country districts the landlords paid a proportion of the rates, and were represented upon the Boards of Guardians and on other local bodies; and it did seem to him that the working of the system in Scotland was good. He did not think it mattered materially who, in the first place, paid the rates. Boards of Guardians, there could be no doubt, were for the most part composed of occupiers, and their meetings might be attended by magistrates *ex officio*, but, because they had no position there, they very rarely attended, unless they had some specific duty to perform. He thought there was some difficulty in the suggestion that the landlord should pay part of the rates in towns; and he confessed he was not prepared to go the length in that respect at which the Committee appeared to be aiming. With regard to farms damaged by game, he confessed it seemed to him an anomaly that a farm burdened with game, of which the owner received the benefit in one way or another, should be rated lower than one on which the game was not made a matter of consideration. There was a beneficial occupation in the game; and the two farms ought to be similarly rated, although the one might not command so high a rent per acre as the other.

The meeting then adjourned.

THE ROYAL AGRICULTURAL BENEVOLENT INSTITUTION.

The annual dinner of this institution took place on Wednesday, June 8, at Willis' Rooms, St. James', and was attended by about 100 gentlemen, over whom Lord Lytton presided.

After the health of "The Queen, our Gracious Patron," had been drunk with loyal enthusiasm,

The CHAIRMAN, in proposing "Their Royal Highnesses the Prince and Princess of Wales, and the other members of the Royal Family," said that in addition to his other accomplishments his Royal Highness had a manly taste for old English sports, which formed another claim to the cordial recognition of his merits; and if in the pursuits of farming he should be able to show at the end of the year as good a balance-sheet as their friend Mr. Mechi had done, he hoped he would communicate his secret for the benefit of those praiseworthy, but ill-starred agriculturists, of whom he was one, called gentlemen farmers (laughter). As to the amiable Princess, it was needless to say that she had charmed all eyes and won all hearts (cheers).

The CHAIRMAN then proposed "The Army, Navy, Militia, and Volunteers," and in doing so dwelt on the fact that many of the most celebrated members of both the army and navy sprung from the agricultural districts.

Colonel LOYD LINDSAY in responding for the army also testified to the immense importance of agricultural element in the army, and by way of illustration alluded to the fact that in the Crimean war men who had been connected with agriculture were always selected for the digging of trenches and other work requiring special bodily vigour.

The CHAIRMAN, in proposing "Prosperity to the Royal Agricultural Benevolent Institution," spoke as follows: Among the attributes for which England is distinguished I know not if there be one which is more remarkable—and certainly there is not one which presents the character of our countrymen in a more amiable light—than that readiness to combine for purposes of charity and benevolence which springs from active sympathy with human suffering. The main distinction between the civilization of Christianity and the civilization of the old heathen world is, that all Christian communities recognize to an extent unknown to the most enlightened commonwealths of antiquity the simple doctrine "Help one another." The ancients had among their goddesses three graces to whom they gave in their language the endearing name of "The Charities." Goddesses very charming and attractive were they; elegant companions in feasting, in merriment, and in gallantry. But those charities did not take their stand by the sick bed and the desolate hearthstone. They had no fellowship with old age and decrepitude; no broken-hearted widows knelt at their altars; no fatherless orphans cried to them for bread. Instead of those three heathen charities we have adopted one simple image of Christian charity; we place her not amidst the hearths of joy, but in the abodes of sorrow; and the only festivals to which we invite her are such as we hold to-day, in order the better to fit her to-morrow for her sacred mission as the benefactress of poverty and the consoler of distress (cheers). Now, gentlemen, when I look around me I see many with whom I am familiar—many with whom I hope on some other occasions to become more familiar—who are engaged in the active pursuits of life; and I think most of us may say that we are that (Hear, hear). It is commonly said that those who are engaged in such pursuits, and in keen competition for gain and power, are apt to forget others in their desire to advance themselves. And yet there are no communities in which that competition for gain or power is so active as it is amongst us of the Anglo-Saxon race; and in no communities are there so many institutions that attest the sympathy of the prosperous for the unfortunate, or in which the desire to aid and serve those who have to struggle against the ills of life more systematically pervades our public legislation or more enters into our private habits of thought. So that, perhaps, the truth is in reality that the more active and busy our lives are, the more our sympathies for large varieties of mankind are aroused and diffused; and our exertions for gain and power bring us naturally so much into familiar contact with the poor

and the feeble, that we become more sensible and compassionate simply because objects of compassion are brought more frequently before our eyes (cheers). The Samaritans were much more engaged in the active pursuits of life than the priests and the Levites; but when the wounded traveller lay half dead in the public thoroughfare, the priests and Levites passed by on the other side, and it was the Samaritan who bound up his wounds and took care of him (cheers). Amongst all our charitable institutions, speaking honestly and fairly, I know not one which is more entitled to general support than those in aid of which we are met this evening—a support which should not be confined to that class the suffering members of which it is the object of this charity to relieve. For the wealth of our nation has its groundwork in the culture of the soil (Hear, hear). It is in proportion as land becomes productive that capital arises for the purposes of trade, commerce, and manufactures. So that all classes may well say, "Speed the plough," because it is the plough which puts in motion the ships of the merchant and the mills of the manufacturer (cheers). And yet, gentlemen, while every other class and vocation long since established its special guild or benevolent institution for its unfortunate members, it is only within the last ten years that there has been added to the charities of this country this institution for the benefit of those cultivators of the soil who, while adding to the wealth of the nation, have themselves been overtaken by poverty. There are many who think that the life of the farmer is the most enviable of all, and in many respects it is. Still the life of the farmer is exposed to vicissitudes over which he has no control. This has been the case at all times; but I think I could show that in the times in which we live there is a more special call for the resources of this institution. In all times the English farmer is exposed to the risk of bad seasons in a climate proverbially fickle and uncertain; in all times his flocks and herds are exposed to disease, and his crops to blight and mildew, storm and tempest; in all times he is subject by the conditions of other countries as well as his own to great fluctuations in prices, and to the consequent difficulty of calculating profits and guarding against losses; in all times, too, he must be subject to that anxiety and fear of the morrow which preys upon the heart and undermines the health. And if he belong not to one of the higher order of farmers, such as I see to-day, but is one of the working class of farmers, his frame must be always exposed to the inclemencies of the weather, and, stout though that frame may be, he is thus more liable than weaker men who carry on their work under shelter within doors to be suddenly stricken down by disease. And yet, perhaps, there is no vocation in which the eye of the master is more imperatively demanded than in that of the laborious agriculturist (Hear, hear). While, then, at all times the life of the farmer is exposed to unforeseen reverses, this institution, in aid of which we are now met, is the only one existing in which in case of misfortune he can find comfort and relief, a provision for his old age, a pension for his wife, and a school for his orphans. The times in which we now live are marked by circumstances which may perhaps render the resources of this institution still more called for and important. We cannot conceal from ourselves that for several years past a transition state of agriculture has been in operation, and that it must continue in increased activity and force. There is a growing persuasion that a much larger amount of capital than was formerly needed is now required for the due cultivation of the soil. Small farms are being somewhat rapidly melted into large ones, and that old class of farmers whom we may fairly call working-farmers, who had little other capital than their own bodily labour and the scanty savings of their own careful thrift—that class is either rapidly disappearing, or, where it exists to any great extent, is engaged in a life and death struggle against the competition of neighbouring tenants, with all the costly advantages of machinery and science at their command, perhaps with some resources at their banks, which enable them to resist the pressure of adverse seasons and fluctuating

markets. That change began long before the repeal of the Corn-laws (Hear, hear), but that repeal gave to the change an irresistible impulse. The change is inevitable, and if it is for the good of the community, I cannot say that it is not desirable. Whatever brings to any description of business a higher degree of education and a larger amount of capital is not a change which any sound reasoner can deprecate or lament. But in the course of that change there must be a correspondent amount of innocent sufferers, and this institution comes opportunely to their aid (cheers). But even when the change shall be completed, even when large farms have become universal, and when the opulent tradesman and the scientific agriculturist shall more and more become eager competitors, at high rents, for the hire of acres in which to invest their capital and hazard their improvements, still we cannot hope that all will succeed. On the contrary, the hope of large profits necessitates the risk of great losses; and thus, perhaps, the uses of this institution may become more demanded when the change is complete than they are now that the change is in course of operation (Hear, hear). Why, I learn from the last report, which I have looked over rather carefully, that among the recipients of your bounty are the former occupiers of large farms at high speculative rents, farms of five or six hundred acres (Mr. Mechi: "A thousand"). The occupier of one farm paid, I find, not less than £3,500 a year rent. We must not forget that in the course of this transition, in which the old class of farmers is disappearing, with it must also disappear the old affectionate spirit of clanship between landlord and tenant. Formerly there was a kindly, affectionate relationship between the squire and the farmer. The former was naturally—he could not help being so—indulgent towards the man whom he had known in his childhood, whose ancestors had lived there almost as long as his own ancestors; and I don't see how he could be persuaded to set adrift in his old age a tenant who, whether from straitened circumstances, from infirmity, or from obsolete notions of agriculture, was not doing full justice to the land. But when the hire of acres is to become that mere matter of business which political economists tell us, and perhaps rightly, it ought to be; when the sole consideration between landlord and tenant is to be that of rent and contract, you cannot expect that the landlord will have the same affectionate indulgence that he has had heretofore for a failing tenant; and then the uses of this institution may become more urgently required. Now, in presenting the subject thus earnestly before you, I have not attempted to disguise the fact that it is dry and tedious; but I have dwelt thus minute upon it, in order that I might bring the uses of this institution now and hereafter more visibly, not before the public, but before those distant counties which at present subscribe to your funds in a proportion so slight compared to the wealth of the districts and to the agricultural interest there that I am induced to suppose that in those districts the uses of your society must be unknown (Hear). With a few brilliant exceptions, which I shall presently notice, I have observed that, while the society has been liberally supported in the home-counties, where its benefits are, I suppose, best known, as a general rule the amount of support diminishes in proportion to the distance of a district from the metropolis. Well, ought that to be the case? This society offers its bounty impartially to the three kingdoms; yet Ireland, with regard to which we hear a little more about the distress of small tenants than we hear in the case of either of the other parts of the United Kingdom sends us only one subscriber, and he is a physician at Dublin (laughter)—long life to him as well as to his patients (cheers)—while Scotland, which justly prides itself upon its agriculture, and which sets in many respects so notable an example of prudence and of foresight, sends, I think, only five subscribers, one of whom is a duke, and another a bishop. Long life to the duke's order, and long life to the bishop's church! We may be reminded of the old sarcasm, that farthings were first coined in order to enable the Scotch to subscribe to our public charities (great laughter). Yes; but, then, I find that the Welsh seem to think the farthings just as useful to them as they are to the Scotch, or more so, for North Wales and South Wales together only send us eight donors and subscribers (Hear). The county of Cornwall exceeds them all in care for the farmers. With the single exception of Earl St. Germans, not one single farthing has that great county contributed to our funds. Derbyshire

sends us, I think, nine subscribers; Cumberland and Westmoreland combined send us four; and the wealthy district of Lancashire, which would never have had its manufactures or its wealth but for the agriculturists, in spite of the munificent example of the late Earl of Derby, and of the interest evinced in the Society so sincerely and so warmly by the present Earl, who was my predecessor in this chair, that county only sends us fifteen subscribers, nine of whom (honour to the town and discredit to the country!) as appears from their place of residence, are not squires, or farmers, or persons belonging to rural districts, but persons residing in the towns of Liverpool and Manchester (Cries of "Shame"). Well, then, gentlemen, surely our object ought to be to diffuse as far as we possibly can a knowledge of the uses of this institution among those wealthy but benighted districts (laughter). How much can be done by the efforts of a single individual we may learn from the brilliant example of the founder of this institution (cheers). I have no doubt that it is owing much, and mainly, to his exertions that we are so greatly supported by the home counties in general, and by the county of Middlesex in particular. Perhaps the generosity with which certain southern districts contrast the parsimony of the northern counties is also to be ascribed partly to the superior exertions of individuals, and especially of the honorary local secretaries; I mean the districts or counties of Hampshire and Leicestershire (Hear, hear). Being myself the son and the brother of a Norfolk squire, perhaps I may be allowed to say with pride that the county of Norfolk sends us 85 donors and 250 annual subscribers (cheers). Well now, I would suggest one very cheap and simple mode of extending a knowledge of the society in those districts which do not at present contribute to our exchequer, and confirming our hold upon those which do: it is, that we should endeavour that at the various agricultural dinners, which take place every year "Prosperity to the Royal Agricultural Benevolent Institution" should form one of the toasts, and be entrusted to some person of local weight and influence. If he be a farmer of local weight and influence, it will be better than if he were a squire (Hear, hear); but at all events let him possess those qualifications. I should like to see such a toast proposed by my friend Mr. Brandram at the next agricultural dinner in Hertfordshire. No one could propose that toast better; and though Hertfordshire—thanks much to him—has done its work worthily, and we subscribe largely, still if the example be once set of bringing the institution fairly and clearly before the farmers of the county, it might be followed at other county festivals and the practice become general. Further, I think that the editors of the great county newspapers should really make a fair mention of the society; and if, besides this, we could secure in the more distant, and at present niggardly districts, honorary local secretaries who would actively exert themselves to get farmers to take an interest in the work, then, I think, year by year we should be enabled to extend the benefits of this institution. There is one object to which I wish to allude that is only partially carried out, and which, to my mind, is of the highest importance to the community—I mean a provision for the orphan children of poverty-stricken farmers. To soothe and cheer the last days of the old in their passage to the grave is a noble and a lovely charity. But for the community at large it is perhaps of still more importance that the rising generation, which is to influence the days to come, should be saved from the adverse influences of ignorance and destitution, and trained to become useful members of the body politic. I have here to appeal to the ladies who have honoured our festival with their presence. This is an object to which they can contribute, and I cannot believe that the cry of the orphan will fall in vain on the heart of woman. Now, ladies and gentlemen, why have I thus argued? To increase your funds (cheers). And, while I have complained of the comparatively small proportion of subscribers, let it not for a moment be supposed that I am dissatisfied with the progress you have already made. On the contrary, when I consider within how short a time the society has been founded, and how large is the country it has to permeate, I see ample reason for congratulation. Within the past year you have distributed amongst the pensioners nearly £3,500, and, besides your annual subscriptions, you have within 10 years accumulated £22,000, which is now invested in the funds; and while your resources have thus increased, your expenditure has been almost annually diminished; so that the society presents every ground

for encouragement, combining, as it does, a most rare and admirable economy of management, with a benevolence which comprehends in its range affliction and old age, pensions for widows, and schools for orphans. Knowing, then, that I appeal to your reason as well as to your hearts, I give you "Prosperity to the Royal Agricultural Benevolent Institution" (loud cheers).

The toast having been drunk with three times three, and much enthusiasm,

Lord SONDES proposed "The Chairman" (Hear, hear). In doing so he spoke in terms of admiration of the speech just delivered, and expressed a hope that it would be circulated throughout the length and breadth of the kingdom, and induce Lancashire and other counties which had been referred to as manifesting no interest in the society to become liberal subscribers to its funds. He had always considered the number of pensions too small, and he hoped to see such an increase in the subscriptions as would justify a great extension.

The CHAIRMAN in responding, expressed the deep interest which he had felt in agriculture ever since he became connected by property and residence with the county of Hertford.

The CHAIRMAN then proposed, "Our Visitors;" which was suitably acknowledged by the Honduras Minister.

Mr. MECHI proposed, "The Agricultural Societies of England, Ireland, and Scotland," coupled with the name of Mr. Long, of Cambridgeshire; in doing which, he congratulated the company that the society was not called a "charity," but a "benevolent" institution, so that there was no possibility of degradation connected with the reception of its pensions; and, also, on the absence of almshouses from the system adopted. As regarded the future, knowing the enormous wealth of agriculture, the capital of the landowners amounting to 1,500 millions, and that of the tenant-farmers to between 300 and 400 millions, he could not doubt that the council would obtain all the aid that was required to carry out the objects of the society. The speech of the chairman would be circulated through all parts of the kingdom, and would, he was confident, bring a fitting response.

Mr. LONG having briefly returned thanks,

Mr. JAMES ROUND, M.P., proposed "The Executive Council.

Mr. CHARLES S. CANTRELL, in responding, assured the company that the council bestowed its best attention on the affairs of the society, and congratulated it that after the approaching election the society would be giving about £4,000 a-year in pensions—a result of ten years' work, which appeared to him very satisfactory, and which he believed had no parallel in the history of benevolent institutions. He emphatically repeated his denial of last year that there was any ground for imputing to the council extravagance in the management of the society, and gave figures in support of that denial.

The CHAIRMAN proposed, in eulogistic terms, the health of "The Secretary," for which, after a fitting response, Mr. C. B. Shaw briefly returned thanks, expressing his satisfaction at finding that his brief tenure of office was, at all events, not considered to have been detrimental to the interests of the society. He then proceeded to propose "The Honorary Local Secretaries."

Mr. JOHN B. BRANDRAM in acknowledging the toast deprecated any undue parsimony with regard to the pensions. He was for a liberal expenditure of the money subscribed, believing that the more freely the society spent its money the more easily it would obtain increased subscriptions. As regarded the amounts of the pensions, he thought there should be £50 for married couples, £30 for single male pensioners, and £25 for single females.

The Rev. G. C. BERKELEY expressed a hope that the clergy in the rural districts would interest themselves in the society, and spoke of the success of his own efforts in that respect in a secluded part of Essex.

Mr. THOMAS SCOTT then proposed the concluding toast of "The Ladies;" and Mr. ROUND, M.P., having briefly returned thanks on their behalf, the proceedings terminated.

THE USE OF A FARMER'S CLUB.

At the dinner of the Dorchester Farmers' Club, Mr. J. G. HOMER, the Chairman, said he had accepted the office of president for another year. Last year he sent in his resignation, and he then fully made up his mind to resign the presidency. This was principally on account of the small attendance at the meetings. He was pleased to say, however, that during the whole of the past session every lecture had been well attended, which was an encouragement to those in office. All of them knew that the object of the club was to consider the best means of increasing the produce of the country—of improving agriculture; it was, therefore, but reasonable, to expect a good attendance at the lectures. He was quite sure that the object of the club had been accomplished. He was satisfied that through the operations of different clubs in the land agriculture had been improved, and that it now surpassed what it was some ten years ago. There had, of course, been certain drawbacks to improvements. They would remember the circumstance of a friend, an old and respected friend, a former member of the Winfrith Club—Mr. Saunders—sending in his resignation. They would remember that a good deal was said about the improvements effected having been taken advantage of by the landlords. Some of them would bear in mind what was said on this subject. Now he (the president) did not think that was the case with all the landlords. He did not think that every landlord would take advantage of the tenant with regard to the improvement of the land. He should be sorry to think so, because the improvement of the land was the staple business of the country, and when that was brought about by better farming the greater was the produce, and those who brought it about were general benefactors. Matters, perhaps, were not at all times equal to their wish; but this would always be the case more or less. The prices realised for produce would not at times meet their outlay. They must look to themselves and go forward as much as possible. That should be their principle. These clubs must by no means cease their work. They had already tended to the improvement of agriculture, and they would still continue to do so. He admitted that there were many instances of improvement being taken advantage of. For instance, when a man's farm had been very much improved from capital, and indeed extra capital laid out upon it, one of the first things he was liable to be falling in contact with the assessment committee, who would probably say, "Here is a farm assessed at so and so; we must put on 15 per cent. because of the improvements which have been effected." Now that was one thing which was not a great inducement to a person to improve his farm. Then, again, local taxation had had some effect upon agriculture. Local taxation was, in his opinion, eventually a landlord's question and not a tenant's. It was a tenant's question, he granted, during the time of his lease—during his occupancy—when he had additional rates and taxes put on; but eventually it must be a landlord's question. Those in possession of leases must, he knew, bear the first brunt; that was one of the drawbacks to which he had referred. It could not be overlooked that additional local rates were looming in the distance. One of the first additions would be a rate for education. He said by all means let the children be educated; but then it appeared that Government were easing themselves and casting the burden upon the local rates. Still, however, they were not to look to the Legislature. The Legislature, he believed, had never benefited agriculturists in the least. But he would not trench upon politics. The great thing they had to do in connection with these societies was to look to themselves, to farm their land better, to assist one another. For his own part he had derived considerable benefit from these societies, and they should continue to have his support. He concluded by expressing a hope for the success of the club during the next session.—[We gave some report of the other speeches in a recent number.]

FARM PHOTOGRAPHS.

CENTRAL YORKSHIRE.

This name will not be found in the maps; neither will Bradshaw nor Murray throw any light upon the subject. For parliamentary purposes Yorkshire is divided into three Ridings—North, East, and West; and the latter is again subdivided into three divisions, each represented by two members. It has also its Wapentakes, or Hundreds, its Petty Sessional divisions for local government, and its Unions and parishes for poor-law business; yet no one of these is coincident with the agricultural district which we allude to. It is a district large and important, and contains within its limits decidedly representative specimens of "the best of everything" that English agriculture possesses—good land, well farmed and well stocked—horses, cattle, sheep, and pigs being equally cultivated.

This district is really what we have named it—Central Yorkshire; being situate as nearly as possible in the very middle of the great county. It is of irregular figure, and may be generally described as a parallelogram, bounded on the east by the North Eastern Railway, from Milford Junction *via* York to Easingwold; and on the west by the North Eastern Railway from Leeds to Ripon. This district has in it the important towns of Leeds, York, Ripon, Borobridge, Knaresboro', Harrogate, Wetherby and Tadcaster, and a population greater than that of any other agricultural district of the same size in England. Its agricultural capabilities are as varied as its situation will permit. It does not produce hops; but every other description of live and dead produce are staples. Every kind of cereal and green crop is produced in the highest excellence on the new red sandstone range between York and Borobridge. The limestone belt running from Knaresboro' to Nottingham is a highly-farmed turnip and barley district.

The extensive district over the coal measures is productive of wheats and clovers unsurpassed. While the portion of the Great Vale of York, of the valleys of the Nidd and Wharfe, which run across the district, offer a large area of alluvial soil, adapted to any and every sort of crop; and in the neighbourhood of the several towns, on the banks of the Ouse, and alongside the Nidd, and the sparkling Wharfe are pasture lands upon which a beaumont of beeves and oxen are annually fattened for the public market; and broad meadows where the grass-mower "has ample room and verge enough," and where it has already relieved muscle of many a heavy strain in cutting the thick grass.

In this land of fleece and corn, of hoof and horn, there are famous sports and pastimes. Cricket holds sway on many a village green, and the champion of the ball, Freeman, learnt the alphabet of his art under the walls of the now rural village of Alborough, once a borough sending two members to Parliament; the quondam Isurium of the Romans, and, before Romulus was born and Rome founded, *Iseur*, the capital of the ancient Britains. Green forests and woods there are here too, and park demesnes, where the fox is sacred, except when the horsemen gallop down the broad glades to hear

The music of the hounds
Uncouple in the western valley.

But we must pull up at present. We are on holy ground. At this moment the sporting agricultural spirit of the district is struck dumb with sorrow at the Grecian tragedy, where one of the truest hearted of Yorkshiremen fell

victim to miserable political intrigue. He was indeed "the noblest Roman of them all!" and those who know how clannish Yorkshiremen are, will understand the spirit of indignation that just now reigns in every house and cottage in this locality. Here is the broad territory over which his noble relative holds sway—Studley, where the monks of old lived, and fished, and quaffed, with as few cares and as many of the good things of this life as was good for them—Studley, where the "first white bull," a very early ticket in the herd-book, held his levee, and where the lordly Shorthorn has ever since been a standard "institution." Here too, is Newby Hall, where the bereaved mother was when

She read
Who in his shroud lay sleeping.

Here where, a year and a-half ago, she saw one of her sons narrowly escape death, and another of her brave boys face it time after time to save others from the sudden death that came in the twinkling of an eye upon master, huntsman, and two of the first flight of the Ainsty. The loss at the ferry of Newby of Sir Charles Slingsby, Mr. Lloyd, Mr. Robinson, Orvis the whipper-in, and the two boatmen, father and son, in February, 1869, opened a wound which has not yet healed, and which this new affliction has caused to bleed afresh. Gallant, chivalrous, patient, pious, mild and soft-mannered, yet affectionate and brave, the name of Frederic Vyner—"poor Fred!"—will long be held up to honour under every roof-tree in this broad county, and will be associated in memory with "Sir Charles," whose name is yet "a household word" with farmers and sportsmen.

Well do we remember the last of the Slingsbys and his pluck as a boy, when he hunted his own harriers, first on foot and then on his pony; and often have we, when he was Master of the Hounds, and master of the art too, witnessed his perseverance and patience, and admired still more that calmness of temper which neither design nor accident could overcome. To have felt his welcome, and to have occasionally given him the gate, is a jewel of a reminiscence to be carefully stored. We, too, have met Lloyd and Robinson in the field, and have seen the latter go as he could go. With Mr. Lloyd we have marched over, *through* and *in* Knavesmire when the heavens opened and the rains fell upon the devoted heads of her Majesty's gallant Volunteers; and we have sat at his elbow at the mess, where his smiles and bon-hommie endeared him to every junior, and gained him the respect of all.

Few years have elapsed since Sir Charles consulted us on some little agricultural difficulty; and the manner in which he mastered his subject, and cast back and quartered the ground, and hunted every inch of it till he came to a conclusion, we well remember.

But he had no vanity. He "did not profess to be a great gun at farming." Neither did he profess to be such in hunting; but he was one. "The first amateur huntsman and master of his field in England." A very great authority says this; but we back it, and utter it as our own, and will take the responsibility.

When men of this calibre ride over the land, fox-hunting and farming must go hand in hand. Class distinctions and political opinions weigh little after forty minutes' *fast* across country; and the gap which has been

made in cover-side society, where the farmer and his landlord winnow their sporting and farming chaff, and give and take freely, has been widened by the cold-blooded murder of so young and popular member of the hunt as Frederiek Vyner. But the last year was a sinister one, and public sympathy was excited by other disasters in the sporting world. Amongst these we may mention the death of poor Poulter the whip, who saw his master and huntsman sink beneath the waters, and who, escaping the danger of the "flood" in February, perished in the "field" over a grip in November; and the awfully sudden and fatal accident in May to a well-known and highly-esteemed agriculturist in the district—poor Tom Hannam. One of a race of sporting farmers—he loved Sir Tatton's thoroughbreds and Leicesters—he had won the prize, £50, for the best-managed farm, and many times carried off local prizes as a sheep-breeder. As an amateur steeple-chase rider, he formerly won frequently, and was for twenty years across country, one of the best of the "Bramham-moor Blackcoats." Fearless in the saddle, he met his death out of it; being killed instantaneously while acting as judge at a horse-race near Wetherby. We mention these "moving incidents," because in our recent wanderings we found them in everybody's mouth:

Tale!—Lord love you,
I have no other tale to tell.

was virtually our answer, now that the deaths of Vyner and his companions have brought back to memory and to mention, the other local disasters. And one or other of these gloomy pictures in all cases have we listened to, before we could get any attention to our objects, or elicit a single fact or feature useful to our agricultural photograph. It is then with bated breath and subdued tone that even yet horse, hound, or hunter is mentioned at any farmer's ordinary between York and Ripon.

But "after darkness cometh the light." Young blood moveth quickly, and farming and foxhunting will again become the popular toasts.

In this fine district, then, with an eye for pleasure as well as business—scenery and fishing, as well as farming and photographing—we have pitched our tents for the present. Whence we come, and where we go, we say not; but "here we are!" And that is all that any one will care to know; except that, whenever we have been told of anything to see or learn "in our line" there we *have gone*; and whenever we shall find that there is something worth seeing that we have not seen, *there we shall go!*

Before attempting to bring our art to bear on the agricultural specialities of particular persons and places that may be worthy of "fixing," we shall, on this occasion, simply attempt to picture the general agricultural position of the district at the present moment. The first feature we must notice in our written photogram is the weather. Well for us, under the canvas, and in our wanderings, and well for the country it is, that it is now genial and lovely. May began inauspiciously with cold winds and night frosts. About the middle of the month there was a rainfall, and since then we have had uninterrupted sunshine. Poets in all ages have sung the praises of May, the "merric month," when, as Reginald Heber says,

Flocks on the mountains,
And birds upon their spray,
Tree, turf, and fountains
All hold holiday;
And love, the life of living things,
Love waves his torch and claps his wings,
And loud and wide thy praises sing,
Thou merry month of May.

We are at the end of it, and it is not the least of its

attractions that it brings us to the portal of June, the queen of months in England. In this month the day reaches its full length, flowers attain their perfection of bloom; earth gleams and glows with beauty; birds are in full song; earth, air, and water teem with life, and all Nature is gay and joyous. On the farm this change is now seen. The trees are in full foliage, the quickthorn has burst into leaf, and the hedges are green walls fringed with the sweet may bloom. The fruit blossom is on every tree, and the orchards in the landscape look like a mass of rich lace thrown here and there upon the carpet of the earth. The wheat plant has changed in colour from the sickly yellow to the dark green, and its broad leaf waves heavily as the sap circulates rapidly in the pores, and the materials which will eventually form the stem and the ear accumulate. The spring corn has also grown out of its delicate first blade, and now totally hides the brown clods of the soil. The very bare pastures of the spring have become a mass of fine dark green herbage, and are gilded with a profusion of the buttercup and cow-slip, the former being a true indication of the wealth of the soil and the richness of the pasture. And the meadows, which looked starved and mean in early May, though backward, are now fresh and vigorous. This is all the effect of a fortnight of fine genial weather, after rains. Before the rain came cold winds from the N.E. ruled; the nights were very cold, and on the 4th of May vegetation was cut off by the frost. The long tedious winter and the cold spring had kept back the early bite of grass, and winter food was exhausted before vegetation had made a move; so that the old grass was eaten up to the quick, and three weeks ago the pastures were truly like Falstaff's contingent, as they marched through Coventry,

Exceeding poor and bare.

The wheat plant, at that time, looked in many places rugged from the ravages of insect enemies, and from the loss of root during winter. The hoe, however, has been busily employed, and the improvement in the appearance of the crop during the last ten days has been very great. We say "the appearance," because in those places where the crop is patchy, from loss of root, the vigorous growth now going on and the broad leaf that has been developed, cover up the vacancies caused by the loss of plant, and conceal the real thinness of the crop. The improvement that the present fine weather has produced in the wheat crop is therefore nothing more than is always to be expected, either early or later, in June; and is nothing to build a theory of future productiveness upon. And in the cases to which we have referred, where the root of the plant has perished, it really only covers up deficiencies and gives the crop a better external aspect.

The failures in the wheat crop we find to be quite as extensive and numerous in this county as in all others where we have lately travelled. Reports concur in stating that the same is the case generally throughout the kingdom. Certainly here, on the light lands after clover and seeds, where wheat is taken generally, upon open fallows and upon bean and pea stubbles, crops with sufficient plant are quite the exception. As a rule they are patchy. In many instances large portions are very thin, and in some cases the roots have all gone. In these cases the crop continued to go away during April, instead of gathering root as might have been expected. So that not nearly as many farmers ploughed up the tailing patches, and resowed them with barley as might have done so. Where the wheat has sufficient plant, it is however looking capital. The weather has done all for it that could be done, as it glories in a fine dry period of some duration after rain in May, and always in June assumes the rich dark green foliage that seems to indicate full health and vigour—hence the old rhyme:

Go, look at your crops in May
 And you are sure to come weeping away;
 But visit them again in June
 And you'll sing a different tune.

The barleys and oats are looking unmistakeably well here. They are full of plant, and well forward. If June sun gets to the soil it makes bad work of the yield of the barley crop, hence the advantage of early sowing. Considering that in this district the farmer grows turnips on nearly all his fallow break, except where potatoes are grown, and that some of these turnips must necessarily be consumed on the soil in spring, the quantity of late sown barley is very small. Knowing how soon moisture escapes, every effort appears to be made here to get the seed barley in quickly, and every energy of man, horse, and machine is concentrated for that object, when the turnips are off, and the barley has to be put in.

Spring beans and peas are only looking moderate, but winter beans are a miserable lot. If they have not, to use a farming phrase, "stood the winter" in one sense, they have certainly done so in another; for they have certainly *stood still*, and made no improvement during winter or spring. The fallows have been thoroughly done; the whole are now clean; and such as are not sown are quite fit for the turnip. Swedes are now nearly all sown. In many cases half the acreage grown were put in a month ago. Those sown then are now well up, and fighting bravely with the fly. If rain should come quickly it would give them great help. The swedes sown recently are in great need of rain. In some instances the seed will not vegetate owing to the deficiency of moisture in the soil; in others it has vegetated, but can scarcely form root, and, certainly, if dry weather should continue for many days longer the young plant will succumb before the combined influence of the drought and the fly.

In both these cases the advent of rain is a necessity to the crop. The white turnips, which are now being sown, will rest quiet in the soil till rain does come; and upon the date when that shall occur will be the bulk of the crop depend. A late crop in this district is seldom an average one, never a good one. The advantages of early sowing turnips are an accepted doctrine by the best men here, who farm highly and use cake, and hand tillages as well, freely. Autumn scarifying and cleaning, steam-smashing, and the use of cultivators instead of ploughs at spring are the agencies which accomplish the work—horse-power in abundance in autumn is required to do this, but the relief is found at spring, when the whole physical power of the farm can be applied to getting in the crop, instead of sweating and broiling in the sun to get out the quicks and to turn the soil over and over till it is leaked into either large, moderate, or minute bricks as the ease may be, incapable of affording soluble nutriment to the young rootlet and the vegetating seed until rain comes in abundance; for an ordinary summer shower has no effect upon land in that condition.

The mildew was formerly a bugbear to early sowing; it is no longer so here. If the early-sown swedes are highly manured they will get grown into a good crop before they are touched by the mildew, and will swell again in the autumn, after being mildewed, and get to be much heavier than the late-sown ones that are not touched with mildew. Of course, to sow swedes early on poor soil, or on any soil, without manuring freely, both with farmyard and bought fertilizers, is folly. It is equally folly to use fertilizers freely, and to lose the advantages of early sowing, especially on a large farm, where one field may be sown rather later, and kept for the very latest consumption. Along with the implements named above the water-drill is now adopted in many localities here. At

the present moment it is doing good service, and will ere long be in general use. The mangold is a good plant, and enjoys the present sunshine. It "digs deep" for its food, and flourishes best in summer weather. The early potatoes, though checked by the severe frost in the first week of May, have recovered, and the general crop is now well up, and looks promising. This district is in repute for its bright-haired Leicester wool, and this year the clip has been good. An improved system of washing has become more general. The crop of lambs is a full one, and the sheep stock healthy. Now that the pastures are stocked great anxiety is felt for the health of cattle. This district suffered greatly in the plague year. The foot-and-mouth disease was almost universal last year; and the pleuro-pneumonia "hit hard" in particular localities. The farmers are beginning, however, to be aware that they must assist the authorities in carrying out the law and in putting out the parties who infringe, by moving diseased animals about, if they wish to prevent their feeding pastures and dairies being again made profligate by the visitation of disease amongst their live stock. Pleuro-pneumonia has for many years decimated the cattle on the grazing lands here. If the now Order in Council which regulates the transit of cattle by sea as well as land, and the Orders already in force relative to moving home-bred stock, should be effective in excluding this disease from our farms, the farmer will look back on previous losses without regret; the future immunity from such attacks being compensation in full for the past. That this will occur we have great faith. The sea-passage from Ireland has always seemed to be the *fons et origo* of the disease. The horrors of that passage in some cases have been depicted. The crush and excitement on going on board—the crowding and heat—the sea-suffering—the night-sweat and putrid atmosphere—the early-morning chill—the cold bath at landing when swum ashore—and the damp ground for a lair—have been sufficient to sow the seeds of disease freely amongst a drove of cattle; and these have ripened and born fruit in the death of hundreds of valuable animals in our pastures. On this ground alone can we explain the arbitrary and eccentric course it ran throughout the country last year.

"Nunc huc, nunc illuc, et utroque sine ordine currit."

This is its peculiarity. When existing in a district it harasses the farmer by being always with him or about him, and by being intermittent so far that if he be free of it to-day, to-morrow it may make its appearance. Now it sweeps away a drove of lean stock, and next it takes the one prime bullock intended for Smithfield. Now Smith's Irish heifers fall victims, while Jones's Scotch bullocks in the next field escape; and Robinson's Short-horn Peceresses are struck down, while the half-bred milch cows on the same farm escape scathless.

In one year, out of one noble pasture eighteen years ago, we lost forty-eight head of cattle—lean, half-fat, and fat. Our neighbour, separated by an iron hurdle only, escaped without loss. Next year, however, he was to a serious extent victimized. The regulations which are now the law of the land, to our mind may, if thoroughly carried out, for the future preserve our herds from these visitations. At least they will seriously lessen the risks of infection; but if they exclude pleuro-pneumonia they will be the greatest "blessing and boon" that have been conferred upon the agricultural interest by the wisdom of our legislators.

THE STAFF OF LIFE.—The Cornish bread is decidedly the best that I have ever seen, and that which I tasted at Lundy Island would make the fortune of any baker, if it could

be produced in the London market, instead of the bubbly, scentless, tasteless stuff which we are unfortunately condemned to eat. The loaves are usually large, and will fill a room with the fresh smell of corn; the grain is excessively close, but only of leather weight. I have used the phrase, "condemned to eat," and verily it means a great deal; I may also add "condemned to drink." It is no use having a penny, if you are compelled to put up with a halfpenny's worth; it is a dead loss of half your fortune—fifty per cent. deducted at once, and that in the most annoying way; for I would much rather pay fifty per cent. over, and obtain the article I want, than lose fifty per cent. the other way, the actual moneyed loss being the same in either case. Free trade is all very well, but free trade was never intended to spell "licence." It is plain that the capitalist with only a penny has no choice in the matter—he must pay his penny and get a halfpenny-worth; his is the cause which requires especial attention. The seller says, "If you can pay for my goods, you shall have them;" and he thinks that he is really stating the case honestly on its bearings. He says: "Do you want bread? I have loaves at one penny, twopence, threepence, of one and the same size and order of bread, but more attention is paid to the preparation of one sort than another, because we find it pays the trade." To discuss the subject on its merits, it is necessary to commence at the beginning; the radical idea must be exhumed for liberal discussion. What is the radical idea? Free trade? No; but trade is. Why is any one allowed to trade? Oh, to make a fortune rapidly, or slowly, as the case may be, but certainly to make one as rapidly as possible. Such may be considered one radical idea about another radical idea; but is it the correct one? Certainly not. Again, I will ask, Why is a man allowed to trade? Why are the baker, the grocer, the butcher allowed to open their shops? Because the grocer must eat bread, the baker must eat groceries, and both baker and grocer must eat animal food. Life must go on; for once the creature is born, creation becomes responsible, and places its responsibility in the guardianship of certain of its parts. The stallion protects the troop of wild nares; the bull, the herd of wild cows; trees, hillocks, and rivers protect the grass and the cattle grazing on it. Take away the stallion, take away the bull, the trees, hillocks, and rivers, and the world would wither, parch, and die. A want is supplied to keep the stallion and his troop, the bull and his herd, the trees, hillocks, and rivers from preying on each other. Such a want is man, together with the other orders of creation. Man is born, and lives on the rest; generates acuteness, and makes bread. Savages become civilized, huts become houses, grass yields to cabbage; knowledge increases, collects the spice, and the grocer is made. Why is the baker made? Why is the grocer made? Because the rest of the world require the bread and the spice. Ages follow ages, houses become towns, towns become cities, shops are opened, licences procured. Why are licences procured—to raise money for the taxes? Partially so, but to throw a responsibility upon the seller. What responsibility? That of selling a sound article, and the soundest article for the money. I have now arrived at an important point in the argument. I wish particularly to show that the seller is allowed to sell simply because others want; a certain responsibility is thrown on him, namely, to provide a want. The carrying out his responsibility allows him to support himself, wife, and family; and as the making a certain amount of superfluous wealth cannot be guarded against, it is allowed. This is the second count that I wish particularly to point out; the trader is allowed to make money, but his doing so is not a recognized necessity, or a first cause of his being a trader at all. He is allowed to make money as every one else is allowed to make money, but the State does not depend upon him individually for its wealth. It depends upon trade for its wealth, but not on the trader; to make myself better understood, I will say any particular class of trader. I am arguing the cause of the poor, and will stick to the baker. I have shown that he is allowed to open his shop because people want bread, and not because it is necessary to the State that he, the baker, should make a fortune. And now I will pass on to the particular point of the discussion. "Because people want bread" means a very great deal—a great deal more than the mere supplying the want. The poor man with his penny wants a pennyworth, wants fifty per cent. more than he gets, wants close-grained corn-smelling bread, instead of bubbly, scentless, tasteless stuff. If the baker cannot supply it, take away his licence, and give it to one that

will; to keep the one that will up to the mark, protect the poor man by appointing a public prosecutor, whose duty it shall be to examine the bread and prosecute the seller of bubbly, scentless, tasteless stuff. "The least said, the soonest mended," is a very old saying. I could take the grocer and the butcher, in fact half the world in turn, and I daresay I could find something fresh to say about each of them; but I do not see that the argument would gather force; if I did see it, I should not hesitate for a moment. I have pitched upon bakers simply because the poor have to live chiefly on bread; and I recognize that bread, such as the Cornish bread made by the Cornish women, is a real staff of life; but the bakers are not a bit worse than any one else.—*Mr. Middleton's Cruise of "The Kate."*

THE SMITHFIELD CLUB.

At a meeting of the Council, held on Monday, May 23, present Lord Walsingham, in the chair, Lord Tredegar, Messrs. Canning, Beasley, Newton, Webb, Leeds, J. S. Turner, Joseph Druce, and Brandreth Gibbs,

The minutes of the last Council meeting were read and confirmed.

In reference to the pigs disqualified at the last show, the reply of Mr. Chamberlayne to the letter written to him by order of the Council, inquiring whether he still retained his steward and bailiff in his service, was read, and the following decision was come to, viz.,

"The Council considering that both Mr. Chamberlayne's steward and bailiff (Mr. Gilbert and Mr. Rowbottom) are highly culpable in respect of the false entry of the age of the pigs shown in class 59 at the last Show, resolve that no entry be received in future, signed by either of those individuals, and that Mr. Chamberlayne be allowed to exhibit in future on the sole condition that he shall himself certify the particulars required by the Club."

A letter from the Earl of Powis, the President of the Club, was read, offering to place at the disposal of the Council a sum of money for prizes, to be given for the best instrument for the slaughter of animals by the severance of the spinal vertebrae.

It was resolved: That the thanks of the Council be given to the President for this offer, and that his Lordship be requested to draw up, with the assistance of Professor Simonds, the conditions for offering the prizes; the same to be submitted to the November Council.

The Hon. Secretary having stated the result of the conference of the Show-yard Committee with the Directors of the Agricultural Hall Company, respecting the proposed additions to the Hall, it was determined that the Club should not at present incur any expenditure in reference thereto, but that the Directors should be requested not to permanently appropriate the site in question without first giving the Club the offer of it.

The consideration of the subject of the Club's annual dinner was postponed to the November Council.

Mr. Francis Savile Foljambe, M.P., of Osberton Hall, Worksop, was duly elected a member of the Club.

The Hon. Secretary notified the death of Mr. Thomas Switchell, a member of the Council, and for many years one of the most successful exhibitors at the Club Shows, and that the vacancy in the Council caused by his lamented decease will be filled up at the November Council meeting.

The thanks of the meeting were voted to Lord Walsingham, for his conduct in the chair.

THE CENTRAL CHAMBER OF AGRICULTURE ON THE GAME QUESTION.—The resolutions adopted by the Chamber coincide rather with the views of landlords as to the direction the Legislature should follow than those of tenant-farmers. While commending much of what was said at the meeting as to the evils of game-preservation and the harsh game code, we cannot overlook the fact that the resolutions adopted by the meeting are "most lame and impotent," and cannot be regarded as the opinions of the more enlightened of the tenant-farmers of England.—*The North British Agriculturist.*

THE RECLAMATION OF WASTE LANDS.

At a meeting of the Hampshire Chamber of Agriculture, at Romsey, Mr. W. W. B. Beach, M.P., in the chair,

Mr. BLUNDELL said: Whether we view the subject of reclaiming waste or unproductive lands as a public or private question, it is alike important. Whether it is viewed as a matter affecting the interest of the crown, of the large landed proprietors, of the occupying tenants, the town tradesmen, or the labouring classes, it must be admitted that it is one of the greatest economical and social questions of the present time, for I think I shall be able to show you that royal forests and crown lands, now in many cases of little value, may be made to yield an enormous revenue; that the large landed estates may be made infinitely more productive in rent to the proprietor, offering an extended area for the occupying farmer, increasing the business of the trading and commercial classes, and yielding more employment to the working men; so that pauperism may decrease, that emigration from necessity may diminish, and that the country at large may be more capable of maintaining its own population without foreign aid. I do not propose to speak upon the practical operations of culture, believing that the policy of reclaiming waste land is the subject intended to be discussed at this meeting, and will therefore dismiss the subject of culture by observing that the leading points are paring and burning, trenching or steam cultivating, draining and chalking, or marling, and it is only in a few cases where all these are really required, and that the cost of these operations cannot be stated accurately, because it is found to vary according to locality, the price of labour, and other circumstances. I think it will be best to consider our subject under two separate headings, viz., crown lands, forest and commonable lands, and, secondly, land as private property, lying in a waste and comparatively unprofitable state. Let us take, first, the crown lands and forests in the hands of the Government, and these are to be found in various counties, and are very extensive. It is, however, generally considered that Hampshire contains, in proportion to its size, more than any other county, and, after carefully going into the matter, the only estimate I can make is that we have at least 130,000 acres (which includes the New Forest, the Forest of Bere, Alice Holt and Woolmer Forests, and Parkhurst Forest, in the Isle of Wight—some of the land in connection with all of these has been enclosed from time to time). My figures, therefore, are only approximate, but I introduce them to show the extent and importance of the subject, and will now proceed to state what, in my humble opinion, would be the best plan of proceeding in the endeavour to utilize and reclaim those wild and barren tracts, which are alike disgraceful to the Government and the boasted civilisation of the age in which we live. The local enclosures sanctioned by the commissioners, by which many heaths and commons have during the last 25 years been brought into cultivation, may be a good guide in enclosing the New Forest, as far as acquired rights are concerned. I find that the commission appointed under the Act of Parliament passed in 1854, for defining the rights of parties in the New Forest, have allowed rights to about 1,400 properties, owned by about 1,100 proprietors. Having, therefore, ascertained the number of claims which have been allowed, and before entering upon the question of appropriation of the forest, it seems desirable that, after careful survey, good roads and main dykes for drainage should be laid out, after which all the rights, whether of pasturage, pannage, turbarry, &c., should be compensated, and not by money payments, but by allotments of land. In this way many poor border residents would be retained, and this would be desirable, inasmuch that it would localise a labouring population, whose interest in the locality would be very beneficial. In fact, it is only reasonable to suppose that the reclaiming such vast tracts for productive purposes would involve the necessity of accommodation for an increasing population. The next step I should propose to take would be the apportionment of land for recreation purposes, and that it should be done in a liberal spirit—say 1,000 acres for such towns as Southampton, Lynton, Christchurch, and Ringwood, and 500 acres for smaller places, such as Lyndhurst, Brockenhurst, &c., reserving all the timber as it

stands, in order to retain and preserve its picturesque appearance. We may then commence to set out for sale or letting on long lease such portions of the land in suitable lots as lie contiguous to the various landed properties bordering on the forest, in such proportions as would be likely to attract the attention and facilitate purchases by the neighbouring landowners. In this way some thousands of acres may be disposed of at good prices, any timber thereon to be sold standing. The next proceeding may probably be most successful by offering all the best building sites, especially those most suitable for gentlemen to erect country residences, and there are very many, some of them being of a romantic and highly picturesque description. The quantity of land offered in connection to depend upon the circumstances by which these selected spots may be surrounded, but in all cases to reserve the timber and sell with the land. It seems to me that these sales would eventually tend to form the nuclei or centres of landed estates, and with this object in view, perhaps, it would be well to offer land for sale for agricultural purposes in considerable quantities periodically, say at intervals of five years, by which mode of disposal the land would realise a good price, and thus secure an increasing and permanent revenue to the Crown. There is, however, another view taken by some parties as to the rights defined by the Commission in 1858—viz., that they extend over the whole of the unenclosed parts of the forest, and that they are entitled to allotments in accordance with the extent of their rights, on the same principle as ordinary commons have been allotted to copyholders and others by the Enclosure Commissioners, and they view the Crown as only possessing manorial rights. This matter, however, if not explained by any existing Act, would sooner or later be decided by Act of Parliament, and it appears to me of but little moment, if the forest is enclosed, whether it is done by an allotment or otherwise, so far as the general public are interested. So much has been said and written lately in reference to the value of land in the forest for agricultural purposes that I cannot refrain from offering my opinion, and, having been a close observer during the last twenty years of the reclamation of the waste or common lands in the southern division of this county, I beg most distinctly to state that the South Hants division has the advantage of a climate which is first-rate; and in reference to the New Forest, although the soil varies a great deal, yet there is none but would answer well for reclaiming; quite three-fourths are fit for arable or pasture land, and all the remainder is well adapted for fir and other plantations as woodland. Before quitting the subject of utilising our Crown lands, it should be understood that, although I consider the present growth of old timber in the forest as nearly all useless for navy purposes, it would be well for the Crown to retain possession of some of the most flourishing and extensive plantations of young oak trees. To my mind a number of causes seem to have transpired within the past 25 or 30 years to render necessary the reclamation of the waste lands of the kingdom. Look at the extent of land absorbed by railways, and the area of the stations, &c., connected with them. Again, the extension of towns. The land not many years ago occupied by the market gardeners is now built over, and the gardens banished into the country; also the area of land absorbed by factories and public works in endless variety is very great, and in the interest of the country at large the Government is bound in a national point of view to restore to agriculture and the productive resources of the country as much of the waste as possible, in order to compensate for that which has been taken by Act of Parliament and otherwise for the purpose above-named, and also to meet the wants of an increasing population. And foremost in the demand for restoration we very naturally find the occupying agricultural tenantry of the country, and I propose, with your permission, to name some other causes which have more particularly operated to render an increase of land for agricultural purposes highly desirable. The area of the kingdom is limited, and every deduction from the cultivatable extent is a loss to the nation in its producing and self-sustaining power. The tenant farmers are the great producing medium of the country, and

any cause which operates adversely to their interest is in fact a strong reason why greater extent of land if attainable should be secured for them. Referring to some of the adverse causes in operation, I cannot help saying that the tenure of land operates very much against them. Anything short of a lease for a term or an agreement with two years' notice, with compensation for unexhausted manures and improvements, is against good cultivation, and diminishes production. Again, the subject of game, which engaged your attention at the last meeting of this Chamber, is a monstrous evil, but I shall not enlarge upon it now, and will merely observe that I estimate only one farm in five in this kingdom is let without the game being reserved, and that only represents one-eighth of the land. The law of entail is also a great evil. Immense tracts of excellent land are let subject to six months' notice to quit in consequence of the proprietors having only a life interest in the estate, and I need not tell you how this prevents the outlay of capital, and, in fact, together with the reservation of game, positively deters large numbers of men with ample capital from investing it in agricultural pursuits. The foregoing causes are sufficient to justify a demand for more land to be brought into cultivation, there being at this time an immense amount of capital ready to be embarked in agriculture if it could be secured by a reasonable tenure. In entering upon an inquiry as to the extent of waste lands in the kingdom, it is of the first importance that we should obtain some reliable evidence, and I think you will agree with me that the map now exhibited, showing the extent of waste in each county, and for which we are indebted to the kindness of Captain Maxse, who has introduced it to the Chamber for the purpose of illustration, supplies such evidence. Who is there amongst us that could have supposed that such a large portion of the kingdom actually lies waste, or comparatively unproductive? and I cannot imagine anything more striking and convincing, and better calculated to leave a lasting impression on our minds, than this map. And what do we learn from it? First, that the total acreage of the kingdom, in round numbers, is 77 millions; that the cultivated area, as shown by the Board of Trade returns, is 46 millions under crop, and 23 millions of permanent pasture and grass land; leaving 31½ millions uncultivated. [These figures of course do not agree.] In speaking of this 31½ millions, we must include the woodlands; and, after all the inquiry I have made, and all the evidence I can obtain, I estimate that about 15 millions of acres are capable of being made productive; and the remaining 16½ millions unaccounted for consist of rivers, towns, railways, mountain ranges, heaths, moorlands, and woodlands, some of which are partially productive. Large tracts of it, however, may be made much more so under cultivation, or in pasture and plantations. I find it difficult, in introducing this subject, to avoid some repetition of a paper read by me before the Botley and South Hants Farmers' Club, on "Woods and Wastes," and have also laid under contribution the excellent paper read by Captain Maxse, at the same Club, on the "Waste Lands of England." I therefore propose, in order to bring the subject more under special notice, to speak of our county, from the best information I can obtain, without examination of the Ordnance map, and which would, to have insured accuracy, taken much more time than I have to spare.

I find that the area of the county of Hants contains	Acres.	1,070,216
Arable and pasture land, as per returns by Board of Trade.....		685,540
		384,676
Deduct land estimated to be capable of reclamation	Acres.	130,000
Deduct area of rivers, roads, railways, towns, factories, villages, &c.		54,676
		184,676
Leaving in timber, woodlands, &c.....		200,000
Let us now refer to the 130,000 acres as above stated to be available for inclosure.	Acres.	
Crown lands, uncultivated.....		68,000
Heaths and commons		44,000
Mudlands and estuaries.....		3,000
Chalk Downs.....		6,000
Private property in heath and rough woodlands...		9,000
		130,000

In analysing this 130,000 acres, it will be remembered the part called crown lands I have before referred to being 68,000 acres, the heaths and commons being 44,000 acres, I must compare with much which has been enclosed, such as Curdridge Common, Titchfield Common, Waltham Chase, and others, and may be made productive, if allotted under the Enclosure Act in the same way. There is, therefore, a large field open in this direction for private enterprise, if the parties holding rights would join in application for powers to enclose. The next item which occurs is 3,000 acres, estimated as capable of being profitably reclaimed from the rivers and estuaries by embankment, and converted into pasture land. This should be done by the Government, and considered as public works, and may be effected by the employment of penal labour, in the same manner as Portland Breakwater and other public works; and I think it will be admitted that it would be a better policy than discharging convicted felons under a ticket of leave. If we look at the coasts of some counties more land may be reclaimed in this way than can be obtained in Hampshire; and as an example both as to value and extent, we have only to take the fen-lands already reclaimed in Lincolnshire, Cambridge, and other counties. Instead, however, of the Government encouraging works of this kind, I fear that they have hitherto been opposed to them; for I hear that the Admiralty are very jealous of any enclosures which would reduce the extent of backwater in our tidal estuaries—in fact, the Enclosure Commissioners have already claimed in some instances their rights over land which had heretofore been considered private property. The chalk downs, estimated at 6,000 acres, may to some extent be reclaimed from comparative barrenness to arable land of fair quality—that is to say, much which is now only worth a few shillings per acre rental, and producing only a scanty herbage, may by cultivation be made worth from 12s. to 15s. per acre, producing good crops of roots and corn, and maintaining a larger number of sheep also. There is, however, much that is too poor to cultivate, and of but little use even as a sheepwalk. It then becomes a question whether such land, often of a north aspect, very steep and hilly, with scarcely any soil above the chalk, can be made more profitable to the proprietors, and I propose to test this matter by stating that my plan of planting larch-firs in these cases be carried out with the greatest advantage, for I have no hesitation in saying that every acre of the poorest chalk hills which intersect the county, and stretch across between Winchester and Basingstoke, may be turned to good account; and there are numerous instances of flourishing plantations on the chalk hills, although they have been planted with little care and expense. I will, with your permission, state the plan of planting which I recommend: First is a method of planting larch firs for a quick and profitable return. The land should be trenched or steam-cultivated not less than eighteen inches in depth; the use of fresh, strong manure should be avoided, although good vegetable mould may be applied with advantage on very poor and stony soils. The plants should not be too large—say about from 24in. to 30in. high, and if they have been grown and previously transplanted on poor soil so much the better, if they are healthy, clean grown, and well-rooted. The first two years after planting the land should be kept clean by hand-hoeing. Particular attention should be paid during their growth by the removal of diseased or decayed plants, and as soon as the poles are marketable (which they will be by taking the best at the end of eleven years) commence by thinning and selling, looking only for a quick return. I believe a great mistake is made by many who allow the plantation to go on unnoticed until the plants are neither fit for one purpose nor the other—not large enough for sawing into rails, pales, &c., yet having passed the size called poles. It often happens also that the plants are set at too great a distance from each other; the consequence is they do not grow so fast, neither do they make such handsome poles. When planted close they protect each other, the winds take less hold of them, and they gather more moisture from the atmosphere in the summer months. They cover the land quicker, keeping in check both grass and weeds. Again, instead of growing boughs, the growth centres in the poles, which come earlier for use in consequence. In following the above plan the plants should be set at 36 inches by 30 inches apart. I will now furnish a statement of the cost of planting, and also of the mode of taking and the value of the crop per acre:

EXPENSES.		£	s.	d.
Trenching 18 inches deep, at 1s. 9d. per rod		14	0	0
5,250 plants, at 25s. per thousand		6	11	3
Planting by spade		2	10	9
Hoing		1	0	0
		<hr/>		
		£24	2	0
Interest on the outlay of £24 2s., at 4 per cent. for sixteen years		15	9	4
Failures allowed, at 10 per cent.		7	15	0
		<hr/>		
Total expenses of plantation		£47	6	4
Commence cutting, taking the best at the 11th year, cut 600 poles at 3d each.....		7	10	0
12th year ditto ditto		7	10	0
13th year ditto ditto		7	10	0
14th year ditto ditto		7	10	0
16th year, cut the remaining 2,850 poles, at 4d. each		47	10	0
		<hr/>		
Value		£77	10	0
Cost		47	6	4
		<hr/>		
Profit		£30	3	8
Annual profit, 38s. per acre.				

As however the plan of quick returns, as just stated, by the growth of only larch firs require a great deal of constant attention, some parties may object to it for that reason or others. I will therefore allude to a plan whereby a less number of plants may be set, and take the crops at the end of twenty-five years, and in this case, if required, rows of the common acacia, or sweet-chesnut, &c., may be planted, with the view of remaining for the growth of underwood after the crop of poles has been sold off. Planting is advised in the following way: Larch fir plants at intervals of three feet and six feet alternately, and at three feet apart in the lines, the six feet space being planted with underwood plants at three feet apart. Then, at some intermediate time, each line of poles at three feet apart, may be cut and sold, as also half the poles in the remaining line, thus leaving the lines of firs standing for the main crop at six feet apart each way, and the underwood plants will be found standing also at the same distance. According to this plan there would be left at the end of twenty-five years about six poles to the rod, which at 1s. each, would give £45 per acre, being a large return, in addition to the valuable plant of underwood left on the land. If we can remove timber from those soils capable of producing corn and grass in abundance, and grow timber upon those soils on the hills which are not capable of being cultivated for corn and grass at a profit, it must be a benefit conferred on proprietors and on the country, and at the same time the climate would be greatly improved by growing timber on the hills, for it is well known that we should derive advantage by the shelter afforded, and the rainfall be increased thereby upon these exposed and arid soils. The remaining portion of land, estimated at 9,000 acres, as private property, in heaths and woodlands, I must refer to as capable of vast improvement. Some of it is a very useful soil, and, being the tree, capable of being converted into arable land, worth in rental from 25s. to 30s. per acre, and where situated within a reasonable distance of chalk would pay well for reclamation from its present rough and barren state. The remaining portion being poor soil, for the most part composed of sand and gravel in varying proportions, often growing a little timber, may be broken up and planted with firs, as before stated, such soils being especially adapted to their growth. It is, however, a very common occurrence for landlords to entertain the idea that the planting of timber will not turn to advantage during their lifetime; but when, as my statement shows, that valuable crops of firs may be sold off the land at a period varying from 16 to 20 years, it is encouraging to think that most proprietors on attaining possession may reasonably hope to live and reap the profits of planting, and leave a valuable underwood for succession. No. 3 (given in my paper which was read at the Botley Club) is a level piece of woodland, in a southern county, and is situated a long distance from chalk or marl. It contains about 16 acres, is surrounded on three sides by arable land, the value of which to rent is 20s. per acre. The woodland is of the same description of soil, which

is strong and gravelly, but does not require draining. There is a good plant of timber, principally oak, about 160 trees per acre, a large proportion having been left from stemmers. It is only those which have proceeded direct from the acorn that make any perceptible growth. The underwood is very rough and bushy, not worth more than 40s. per acre at 10 years' growth. These trees do not mete in measurement at more than 4 feet of timber, and do not increase annually more than $1\frac{1}{2}$ per cent. on their value. The following calculation will show the propriety and profit of taking the crop of timber and converting the land into arable:

		£	s.	d.
Expenses—Grubbing, per acre		£10	0	0
Chalking		4	0	0
		<hr/>		
Outlay		£14	0	0
Interest on, at 4 per cent.			0	10
Value of 160 trees, 4ft. metings, 640ft. at 8d.		21	6	8
Annual increased value on the same, at $1\frac{1}{2}$ per cent.			0	6
Value of underwood		2	0	0
		<hr/>		
		£23	6	8
Annual value of the underwood			0	4
		<hr/>		
Total annual value of the woodland in present state			1	1
Value of land to rent per acre after grubbing, being tithe free			1	4
Gain by interest on value of timber and underwood sold off, £23 6s. 8d. at 4 per cent.			0	18
		<hr/>		
Value after grubbing			2	2
Ditto before ditto, deduct			1	1
		<hr/>		
Actual advantage of converting into arable		£1	1	6

In looking back to our total area of the county we find 200,000 acres of land unaccounted for. This, therefore, must be taken as woodlands of various qualities, and all in the hands of private individuals and proprietors. Much of this woodland is comparatively waste, because it can be made so much more profitable. Therefore I propose to show that a great portion of it may be reclaimed or receive an additional value through a better system of management, and will illustrate it by taking certain pieces of woodland as stated by me in a former paper upon the subject. Again, No. 6 is a poor soil, being a mixture of sand and gravel, with a blue pebble in it. This wood is also in a southern county, extends over about thirty-four acres, and is bounded on two sides by good roads. There is no underwood, but ferns grow strong. Some fifty years ago it appears to have been slanted in an irregular and careless way with the Scotch firs, some of which having been cut at intervals, there are now only a few trees left, probably about forty to the acre. They are now quite fit to cut, and it is easy to see how little gain has been or can be derived from timber left in the manner described, and it should be borne in mind that, although this land is too poor for corn growing, yet it is such as would be profitable under a course of cropping for timber. There are instances where some of the very best land adapted for arable is still in coppice, and to show the impropriety of keeping it so, as far as rent or value to the owner is concerned, I beg to read my statement adapted for the conversion of good land. No. 5 is a good piece of woodland, of about 24 acres, in a southern county; the land is level, consisting of a fine hazel loam, surrounded entirely by arable fields of the like soil, and worth to rent 35s. per acre. There are about eighty trees to the acre, of 8ft. metings, and all oak. The underwood is worth £4 per acre at ten years' growth. These trees have been nearly all let up together, and they should stand or fall together. I, however, estimate that they annually increase in value about 3 per cent. only. This land under cultivation would be worth 40s. per acre rent, being tithe free. In this case, also, we must not lose sight of the immense benefit to adjoining lands by the removal of this wood. Let us now calculate the advantage of bringing this land into cultivation:

	£	s.	d.
Expenses—Grubbing per acre	£10	0	0
Chalking	4	0	0
Outlay	£14	0	0
Interest on, at 4 per cent.		0	10
Value of 80 trees, 8 ft. metings, 640 ft. at 1s. 3d.	40	0	0
Annual increased value on the same at 3 per cent	1	4	0
Value of underwood	4	0	0
	£14	0	0
Annual value of the underwood	0	8	0
Total annual value of the woodland in its present state	£2	2	6
Value of land to rent per acre after grubbing, being tithe free	2	0	0
Gain by interest on value of timber and underwood sold off, £14, at 4 per cent.	1	15	2
Value after grubbing	3	15	2
Ditto before ditto, deduct	2	2	6
Actual advantage by converting into arable	£1	12	8

This statement is earnestly recommended to the attention of proprietors possessing the best woods our county can produce. I fear that in reading this paper I have tried your patience, as I know many gentlemen present are prepared to speak on the subject. In conclusion, I can only say that I have endeavoured not only to show that great advantage to the country at large would arise from the reclamation of waste lands, but I have endeavoured by illustration to show how parties possessing landed property may apply it to their own case upon the different soils and under varying circumstances. Mr. Blundell, during the reading of the above paper, by way of parenthesis, expressed a hope that some member of Parliament present would move for a return of the number of farms let with and without the game reserved upon them, their extent, &c., and asked why, in a country like this, possessing such facilities for a Parliamentary return, we should be left in the dark upon such an important matter!

The Right Hon. COWPER-TEMPLE said that the long array of facts which had been brought forward, coming from a person of so much experience as Mr. Blundell, must have great weight upon any body investigating the subject; but it had struck him that Mr. Blundell had not reached the natural conclusion, which was—to raise the question how they were to compel owners and occupiers of land, which they thought not worth cultivating, to expend their capital and labour in cultivating it. Mr. Blundell appeared to divide his subject between lauds which were in the possession of private landowners and those which were waste or crown lands. Now there was a great vagueness in the use of the term "waste lands." According to the law there were no lands without owners, with certain small exceptions known as "No man's land." Every other acre was considered to be owned by someone. There was also great vagueness in the use of the word "waste," which included land that might be most profitably brought into cultivation, and also lands which would ruin anybody foolish enough to expend money in attempting to do it. The first thing they should attempt to do, on the premises laid down by Mr. Blundell, would be to endeavour to induce private proprietors to cultivate land belonging to them in severalty; but anyone could see (even during a railway journey) near Woking and Farnborough large tracts of sandy soil not brought under cultivation, belonging to men many of whom were not deficient in capital, and willing to look to their own interests, yet not cultivated. In Dorsetshire, too, they would find miles and miles uncultivated. He understood, however, from Mr. Blundell's statement that all the proprietors were dead to their own interests in not allowing them to be cultivated. It was, however, a question of expedience, and he believed that all the different kinds of soils had been sufficiently cultivated to enable the Chamber to consider them. They must examine all the circumstances surrounding each case before they could arrive at a conclusion. He was strongly of opinion

that, where land could be profitably cultivated, the landlord could do no wiser thing, nor anything more patriotic than drain, improve, and cultivate it. The Palmerston estates, which he had inherited, were a remarkable instance of what might be done in improving land. Lord Palmerston was a great advocate for the improvement of land, and he drained his estates, grubbed up the coppices, threw small fields into large ones, &c., and the outlay was so productive as amply to justify the wisdom with which the money had been expended. But he (Mr. Cowper-Temple) did not think that so highly a sagacious man as Lord Palmerston was would have spent money on some tracts of land in the direction of Wellow, which were only capable of producing firs, and which, if after having £20 an acre spent on them before producing corn (which would be considered a very fortunate arrangement) the result would be hardly such as to make a good place on a balance-sheet. He believed that the owners of lands had already scrutinised the matter thoroughly, and, though they might not be so good an authority upon land in general as Mr. Blundell, they must be considered to know something of the land upon which they were living, and from which they were likely to get a good result if they dealt with it in the wisest manner. The waste lands of the country were always in the joint ownership of the lord of the manor and the freeholders or commoners. These men were generally alive to their own interests, and the law of enclosure worked with great facility and little expense, under which eight millions of acres had been reclaimed in England, without including large tracts in Wales. He was not aware that any additional facilities were required for the ordinary enclosure of waste lands, in dealing with which the course naturally taken was to select those likely to be most profitable first, and what remained was consequently those lands less profitable, and therefore less tempting to the owner. They must also take into consideration the fact that every year the progress of agricultural science enabled them to get more profit out of the entire soil than formerly, and this was evident to all. Let them turn to the New Forest. Mr. Blundell spoke of "crown lands." He thought this was a misnomer, and that they were not at all crown lands. The crown had no right to plant a tree in any part of the forest except in that part which the Deer Removal Act of 1851 gave it. So the crown had no more right in the New Forest than a land-lord had in an ordinary waste or common; its position was similar to that of a lord of the manor. The New Forest, therefore, belonged to the joint proprietorship of the crown and commoners. They had at present a property in it, so that what we should do is, not to exercise any public force or Act of Parliament, but to persuade those who represented the crown and those who represented the commoners that their respective interests could be better preserved by enclosure and by legally dividing the property. And he did not think that the interests of these commoners should be overlooked, or treated with any disregard. They inherited rights which existed before the Forest was made by William the Conqueror, and they were able to present a very happy and fortunate contrast to those agricultural labourers who were not in possession of similar advantages. He quite agreed with Mr. Blundell and others who argued that it was desirable, wherever there was any land on which capital could be profitably employed, it should be applied at once, but they ought not to lose sight altogether of the other side of the question—that was, although enclosure might increase the number of agricultural labourers employed in a particular place, yet it might deteriorate the condition of that labourer. All persons who had examined the records of enclosures would see that the loss of the power to turn out a cow, a horse, or pigs upon a common must be a great disadvantage to the cottager who lived in the neighbourhood, and he (Mr. Cowper-Temple) esteemed very highly the advantage to a labouring man of keeping a cow. The financial advantages were clear, and what an advantage it was also to the labourer to have the power of getting milk for his children to drink! One of the great misfortunes of the agricultural population was that they could not get sufficient milk for their children, for it was nearly all sent to London, and the agricultural labourers had no means of getting it in sufficient quantity. The commoner felt also a sense of independence when he was the owner of a cow; but when an enclosure took place there was, of course, provision in the Enclosure Act for giving some compensation

to those who had rights of grazing upon commons, but that compensation often went to the owner, not inhabitant, and therefore the inhabitant often lost his right without getting any compensation. In other cases compensation in land was given to the cottager, but then arose a great temptation to turn it into money. He met with some one who was willing to give a large amount for it, and the result was that his successor in the cottage was without any of these common rights, and was reduced to the condition of a mere dependant on his daily labour. He (Mr. Cowper-Temple) would be therefore sorry to see compensation given absolutely in land in the event of the enclosure of the New Forest, because he believed the same thing would occur there again. It might not be desirable, too, that any further facilities should be given to the aggregation of land, which was the inevitable result of these enclosures, speaking broadly. He thought a more advantageous arrangement would be, whenever the time came for dividing the New Forest between the Crown and those who had rights in it, that that portion which would come to the commoners—and that would be about two-thirds of the whole Forest—should remain as land in common, to be disposed of according to their pleasure, and, if they saw any advantage in it, they should be able to use a considerable portion as regulated pasture, by which means abuses would be kept away, and there would be a proper amount of pasture left for the cattle. There were many disadvantages in confining a man's cow to a paddock, and a great advantage to be derived when cattle could stray over more extended boundaries. Mr. Blundell had estimated the good soil in the New Forest at a somewhat larger amount than he (Mr. Cowper-Temple) had been accustomed to hear it computed, which was about 30,000 acres. Owing to the exercise of rights on about the other half of the Forest, little soil was left on the hard chalk, so that the efforts made to stimulate the remaining surface would soon exhaust the soil, and people would find they were cultivating something exceedingly like a highway or gravel road. As long as the rights of commoners were fairly met and maintained, he thought they might be safely left to take care of their own interests, and the interests of the crown might be fairly left to those who represented the crown. There was, however, a third party somewhat interested in these questions of open lands and of the New Forest in particular. Mr. Blundell had acknowledged the great claim which the inhabitants of a town in the neighbourhood of a forest had for a place to be set apart for the purposes of recreation. He hoped the land selected would be a portion containing some of those natural beauties for which the New Forest was remarkable. Where certain soils existed which were not likely to be profitably cultivated, there it often happened that the people of the country might have a natural park with all the beauty and lovely scenery which inspired the poet, and which appeared more especially to belong to primeval surfaces. He did not see why they should push this eagerness for cultivation in regard to lands belonging to the crown to a greater extent than they would with respect to those belonging to private individuals. He did not suppose Mr. Blundell would go so far as to insist on every one turning his pleasure grounds or shrubberies, from growing roses or laurels, into fields for the cultivation of turnips or mangel wurtzel. He would acknowledge in every residence that some utility might be sacrificed to beauty and enjoyment, and so he thought with regard to our larger tracts—that it was a great advantage to England that some amount of utility had given way to those beautiful sylvan scenes which gave many a weary, toiling man a most happy day's pleasure in summer-time. And it was more especially the poorer-classes who were interested in this question, and to whom this boon was available provided they were in the neighbourhood of towns, from which the people could reach them. He thought it was evident, however, that the time was coming when the New Forest must share the same destiny that had overtaken some other forests. But he did not desire that it should follow the same course as Epping Forest, because there they saw a large tract of country, which formed the delight and enjoyment of the inhabitants of London, converted into private parks and private residences, and he was not sure that, if the Crown looked to making the most money out of that portion of the Forest which came to them, it would not find it better to sell it to a number of rich people, who would make parks and gardens, than to allow it to be sold for agri-

cultural purposes; and if they were to part with the most beautiful portions of the New Forest, he should not think they had done anything very successful in promoting the happiness and welfare of the people.

Capt. MAXSE explained the map on the wall, the coloured portions of which showed not only the area under all kinds of crops, fallows, and grass, but also the estimated space occupied by towns, cities, villages, river courses, canals, rail and road traffic, &c. It was only a map of England and Wales, and a far more startling representation might have been made if Ireland and Scotland had been included. He did not think that the Hon. Mr. Cowper-Temple allowed sufficiently for the crisis which had arrived. There was a great cry for emigration now heard in England, and it was declared that the country was over-populated; but he believed this to be a great fallacy. Capt. Maxse argued that England suffered from congestion in the towns, and depletion in the provinces, and the really important point in regard to population was its distribution. It was said that in England and Wales, with a population of 21 millions, there were 347 persons to the square mile, whilst in the east of London there were 130,000 persons to the square mile. While we have 11 millions in towns, there were but 10 millions in the country. Belgium, with a poorer soil than our own, was much better off, although she had 430 persons to the square mile; for out of her population of five millions, one million and a-half lived in towns, and three million and a-half in rural parishes. Mr. Cowper-Temple appeared to speak as if the land system of England were unalterable, but that was precisely what they wanted to alter. In France, perceiving the evils arising from the accumulation of land, a law had been established by which, at the parents' death, the land became distributed amongst the children, but, in England we stimulate the accumulation of land by the power which we give of entail. By means of this system the land became tied up, and there were a great number of rich and a great number of impoverished tenants, whose object was to get as much out of the land as possible. But the real reason of the existence of so much waste land was that cultivation was not the primary object of ownership. It would not pay, according to the ideas of many people who had other investments, to bring waste land into cultivation. If a man could invest money at seven per cent. he would do so, preferring to get that high rate of interest, and at the same time keeping his capital more ready to hand. He had himself about forty acres of what was called at this time last year "waste land." If he had mentioned this, in discussing this question of waste land, he should have been met with some objection that it would not pay; but during the winter he had brought it into cultivation, at an outlay of £15 per acre in grubbing, draining, and chalking. He was now about to conclude an agreement by which he would let that land at 35s. an acre, and if that would not pay him he did not know what would. Captain Maxse then referred to the enclosure of Titchfield Common in 1862, when it was let out in allotments to large and small owners. Nine hundred acres were allotted to the former, in parcels exceeding eight acres, and of these only 225 had been up till recently broken up and tilled, leaving 675 acres uncultivated; whilst of the 190 acres allotted to small owners, in parcels under three acres, 182 had up to the same date been broken up and tilled, leaving only eight acres uncultivated. This showed in a strong light the advantage of allotting land in small parcels to small owners. Having referred to the great extent of waste lands in Ireland and Scotland, Captain Maxse denounced the accumulative land system in the kingdom, and said he did not think labourers would be induced to emigrate when they saw so much land lying uncultivated in their own country. He expressed his belief that the farmers at home could very well compete with foreign farmers. In addition to corn there would also be an immense amount of other food imported from foreign countries, most of which was the produce of the dairies of small farmers, and he believed that we should be producing this were it not that all the small farmers had been banished from the country. He believed that we had arrived at a dead lock with respect to our land system. Land always stood in a different category as private property to other articles, for the simple reason that it was the productive power which supplied us with food. We might take all the gold and silver in the world, and plunge it to the bottom of the ocean, but the loss would not be so great as the loss

of a single acre of land. He was glad that the subject had been brought forward in so able a manner as it was, and he hoped that the landlords generally of the country would be induced to perceive the necessity of devoting their enterprise, energy, and capital to make the soil produce as much food as it was capable of bearing.

The CHAIRMAN said it appeared to him that the subject was divided into two parts—namely, that property in which the crown had an interest, and that in which private individuals with the crown had an interest, such as the New Forest, which was not entirely possessed by the crown, but which did possess valuable rights, and the only objection which appeared to him with respect to carrying out a system of reclamation of the Forest was how far it would pay, and how far the difficulty, with respect to the rights of the crown on the one hand, and of the commoners on the other, could be satisfactorily arranged. He was afraid from what he had heard on the subject, though from not living in the neighbourhood he did not possess accurate information, that some litigation might ensue from the adoption of such a proposition, as each party would strive to obtain as much as possible. A great deal might be effected in the proposed direction if it could be clearly proved that much of the New Forest land could be advantageously cultivated. He agreed that if this were carried out to a great extent that land ought to be assigned for the purposes of recreation. That should not be lost sight of in any enclosures where there was a sufficient population to demand it. In some cases, however, great care was requisite in defending the land when assigned. There was an enclosure in a parish with which he had something to do where a certain quantity of land had been assigned for the recreation of the poor of the parish. Considerable encroachments were made on it, and there arose a great difficulty in protecting the rights of the poor, because great expense was entailed on the overseers when they took steps to defend them. With respect to the private owners, no doubt a great deal of the land in their hands was woodland and down, and it had been pointed out that they should be induced to reclaim them by any means by which this could be fairly brought about. No doubt the chief inducement would be a pecuniary one. Show them that it would be advantageous, and they would not be slow to take action. With regard to down land he had had some experience, and he thought it was rather an open question. A great deal of such land had been enclosed of late years in Hampshire. Much had been reclaimed, partly good for cultivation of barley, but other ground had been broken up which had proved so bad that it had not paid for cultivation, and when laid down to down again it was scarcely worth anything at all. Maiden down was valuable land, but when laid down again it was worth very little. As to the plan proposed for planting by Mr. Blundell, his scheme might be carried out in some parts with great advantage; and he believed that the planting of larch timber would in the long run be very advisable. There was a great demand at present for larch timber; and if anybody would go to the necessary outlay in the first instance, and would be satisfied to wait for a return, in the end he would get a very fair profit. Woodland had some claims upon it which Mr. Blundell did not allow. At present timber was not assessed, but woodland was for the purpose of rating, and that item should enter into the calculation. They were told that the tenure of land had a great deal to do in the first place with deterring landowners from granting leases; but the law of entail had nothing in it to prevent the granting of leases. The owner for life could grant a lease to any moderate extent—say 21 years, which term was generally considered sufficient for any ordinary purpose, and he thought the landlord should grant full freedom to his tenant in the cultivation of his land. That was of absolute importance. He should be restricted as little as possible, and let him cultivate the land to the best advantage he possibly could. They were told by Captain Maxse that landlords had decreased. He was not going into that question; but the decrease had been a necessity of the age. The real cause had been that of late years, to make agriculture productive, a very large outlay had become necessary, and buildings had been erected for which in former days there was little demand. The capital of a large landowner would now sometimes be highly taxed in a particular year, and he would have to find money to enable him to build in that particular year. Unless, therefore, a man had a considerable amount of

capital besides the land he owned, it would be impossible for him to erect the buildings with the same facility that a man could do who had a number of farms, and who, as it was commonly called, rang the changes. Whether a peasant proprietorship would be advantageous or not, it was only right people should have the opportunity of entering upon it, but he thought they were better off when in the position of little tenants than of little landlords. A peasant proprietor was rather in the position of a labouring man, and he would scarcely occupy the position of a small landowner to any advantage. The result would be that he would soon have to contract some little debt on his small property, and the land would, perhaps, before long fall to the possession of another, who would find that capital which should have been invested in the land.

Mr. WARNER, after having seen many waste lands brought into cultivation, spoke strongly in favour of such a proceeding. He referred, as an instance, to Waltham Chase, which was formerly a worthless piece of wet land, but now produced some of the finest corn and roots in Hampshire. He had brought into cultivation some land of his own, part of which was a bog, which did not return a shilling an acre, and had now let it for 40s. an acre. Their object was to show not only that this cultivation of wastes was profitable to the owners, but was also beneficial to the general population of the country. It was said that "the love of money was the root of all evil," and certainly the love of land was a great evil, and a heavy responsibility rested upon those who held large entailed estates to make the best use of the property possessed by them. Mr. Warner condemned the law of entail, and contended that it would be to the advantage of the country that the large tract of land in the New Forest should no longer remain out of cultivation. All the difficulties could be surmounted by an Act of Parliament. He advocated a system both of large and small farms, and corroborated Mr. Cowper-Temple's remarks with respect to the great improvement which had been made on the Palmerston estates. He hoped the owners of estates would look round and see what could be done with respect to the changes which they advocated, and not send that labour out of the country which constituted one of the chief sources of its wealth, believing that the more land there was brought under cultivation, the better it would be, not only to the producer, but to the consumer also.

Mr. TRASK quite agreed that there was a considerable amount of land not growing corn at the present time which might be improved so as to become capable of growing it; but at the same time there was a vast amount of land now growing corn which paid nothing at all. How, then, could he understand Mr. Blundell and Captain Maxse, who asserted that the cultivation of the description of land which they advocated could be made to pay? There were several thousand acres of enclosed land in the northern division of Hampshire to be let, and he invited Captain Maxse to go and try his hand at farming in that locality, and see if he could make it pay.

Captain MAXSE said that, perhaps, the system required altering with respect to the holding of land and the restrictions upon it.

Mr. TRASK believed no practical farmer in the kingdom placed any reliance upon the returns from which the map had been compiled (Agricultural Returns for 1868). Mr. Blundell asserted that nearly the whole of the New Forest was capable of growing corn crops. He did not believe this statement, and he should like Mr. Blundell to inform them how woods were to be grubbed by steam.

Mr. BLUNDELL said he should have read the account, but it would have taken too long.

Mr. TRASK, continuing, observed that he doubted the assertions of Captain Maxse with respect to the effect of supplying corn to this country from foreign markets, and said that the holding of a small piece of arable land would ruin a man. He had much better be a carter. As to petitioning Parliament to make occupiers or owners break up their waste land, he considered the proposition absurd, and it was not giving them credit for common sense as to what was best to be done with their own property. It would be much better to wait, and let public opinion influence them.

Captain MAXSE defended his statements, and a string of questions and answers passed between him and Mr. Trask with regard to the land system in the northern portion of this county.

Mr. SPOONER expressed a hope that the result of so much ventilation which this question had received would not end entirely in wind. He disapproved of the extreme statements made by different parties with respect to the New Forest, and argued that the question before them was whether or not the New Forest could be profitably made of greater use to the public than it was now in its present state. He maintained that it could.

Mr. BLUNDELL, in reply, alleged that the cottagers were most tenacious with respect to their allotments.

Mr. SPOONER then proposed a resolution to the effect that, in the opinion of this meeting, it would be conducive to the public good that the New Forest should, after the rights and privileges of the commoners and others are fairly satisfied, be

brought gradually into the market for sale, reserving such portions as may be required for public recreation.

This resolution was seconded by Mr. Warner.

Captain MAXSE hereupon moved an amendment to the effect that that portion of the New Forest be enclosed and set out in large and small farms, on long leases, which fell to the ground for want of a second, and the resolution was carried.

Mr. BLUNDELL proposed another resolution, setting forth that it was further the opinion of the Chamber that there was also ample room for the more extended cultivation of waste lands on private estates.

Captain MAXSE seconded this proposition which was carried, though a majority of the meeting did not vote.

THE HORSE SHOW AT THE AGRICULTURAL HALL, ISLINGTON.

Time and the hour steal on throughout the darkest night, and the seventh annual show of horses at the Agricultural Hall commenced on Saturday even before the doors were open to the public. It is customary to open before the play begins; but this time the public were kept waiting a quarter of an hour at the entrance-gate on Islington Green to find on their reaching the ring some of the first batch of hunters drafted. At first a blue mist prevailed throughout the Hall, so that you viewed everything as through smoked glass, and you were in doubt whether there was a total eclipse of the sun going on, a display of fireworks had taken place, or that Mr. Pepper had been engaged to give an unreal phantom-like appearance to the whole thing. In the mist we descried Lords Portsmouth and Coventry, or their ghosts, who proceeded with the judging of the first and second classes of hunters before they were joined by Mr. Chaplin, who, like the idle boy, came late to school. The Hall was as might be expected, rather sultry, but sweet and clean, though packed with horses throughout, there being very few empty stalls. The numbers to the horses in the catalogue ran 391 to 364 last year, but there is nothing like that number of horses in the Hall, as many play several parts, and are continually coming before you till you are sick of them—first as hunters, then park hacks, ladies' horses, chargers, cover hacks, in harness, or extraordinary animals, while the exhibitors number 247 this year to 223 last. The first class taken in hand by the judges was the weight-carrying hunters, mustering about thirty-nine strong. The judges had them in lots of nine and ten at a time, from which the best would be selected and the lot drafted, and so on through the class. Then the selected from the several lots would come in, consequently the horses were never all out at the same time and compared one with another, the only way we think of getting at all the best, for one lot may be all good, with two superior horses like Expectation and Iris in, which, of course would be the chosen, while the next division may be a very middling lot, and the pick not so good as those previously drafted. In fact, let a man have a memory as long as the Atlantic Cable, and an eye as quick, the odds are against his doing himself justice or the exhibitors without he can have all the class out before him at the same time. Then how much more satisfactory would it be, we think, to the judges, exhibitors, and the public, if the judges were only presented with the numbers, height, and pedigrees of the horses, as customary at all other shows, instead of, as here, the public catalogue—with the name, address, and titles of the owner in full, a glowing description of his horse, and a fabulous price attached to the end of it. These things do tell with some people, and the latter even if attached to the tail of a Cochin China or a smock-frock. In conse-

quence of the water-jump being in the centre of the ring, the chief part of the judging takes place at one end or the other, so that a great many see little of what is going on. But we are diverging from the thirty-nine articles in horse-flesh, who, with Iris and Expectation, are far in advance of last year's lot, headed as they were by the soft, carty-looking St. Clare, and the flashy Harkaway. The latter is much improved, and again tried for honours, together with such prize horses as Tyrconnel, Brian Boru, and Monarch. Then there was that tough old Chicken of Captain Heath's, a hunter of a couple of hundred years ago in form and breed, and who in his seventeenth year may be had at five hundred guineas. Iris, the prize horse at Wetherby, and of the year 1868, and whose wall eye and form now attract, as much attention on the walls of the Royal Academy as they do at Islington, came straight away from Fife by rail in a box, and landed at the Hall the over-night—out of the frying-pan into the fire this; for anyone who has tried the rail and the Hall knows that one is hot and the other hotter; so we were not surprised to see so high-couraged a horse fretted away and shrunk. But the Hall is too confined for Iris to show himself to advantage, in fact he is not a circus horse, and was fairly beaten on the tan or sawdust by the grand, square, symmetrical chesnut of Sir Watkin's, a model of a weight-carrying hunter, and a show-horse from head to heel. If his joints are a little gummy what of it? as hunters are not made to look at, and most of them, especially if they are good for anything, bear a memento of some good run. Then that noble sensible-looking head and perfect tail, how varmintly are they set on and what a jaunty way he carries them as he steps away so firm and free, as if the whole place belonged to him, and he was on good terms with everyone: or should he catch the eye of some crabbing dealer or coper who has not fingered something out of him, he has that honest independent composure that tells the fellow his abuse is useless. But we hope to see Iris and Expectation meet again in the open, either at Oxford or the Great Yorkshire Meeting, where they will have room on the turf to fight it out, as at Islington the prize has generally gone to the best form or "standstill" horse. The third prize, Ironmaster, is a neat horse and does not look sixteen hands and an inch, which is the greatest compliment we can pay him. The first eight in this class, with the exception of Iris and Expectation, we did not see out through the play commencing before the doors were open, so say no more about them. Of the others not already mentioned Mr. Ellerby's Tubal Cain was short and compact; Mr. Barker's Sampson, a whip's horse who did not get his hind legs under him; Major Stapylton's Storm King by Whoo Hoop, dam by Vulcan, of good form, but we thought fifteen stone a

top weight for him; Mr. Welit's Loiterer is a thick middled animal with action more adapted for a weight-carrying hack or machiner, while his Southwold was of fair form, with the exception of a slight slackness in the loin, on a short leg. Then Mr. Charles Symonds, of Oxford, has a compact, powerful, and good goer in Bombardier; while Mr. Jewinson's The Knight is of capital form, and Mr. R. Powlett's The Roper, a light horse, of character and breed, but a bit of a peacock to look at. Brian Boru, with a lot of flesh on, went very well, but looked rather cobby, but then he is so even a tempered horse, and of such a constitution that he fattens where others would starve, while he travels like a commercial traveller. The prize mare in the hunting class without condition as to weight, is as handsome and as neat as can be, she is wiry and muscular, hardy-looking, free from lumber, and although a hunter would hold her own in Rotten Row, as a hack, and with Expectation as the hero of the hunting classes she is decidedly the Heroine. The second is a shorter horse, very handsome, and a good goer, but he is not right in his neck, and rather cramped and thick in his forehead. Their owner is noted for good-looking ones with breed, and showed Goldfinder, a very handsome and blood-like chesnut hunter and a prize-taker a year or two back. The third, Loiterer, we described in the previous class. Out of some thirty odd were Kildare, a prize horse in the weight-carriers last year; Young Artillery, a prize four-year-old at Manchester, last year, and the following, who had form, breed, and hunting characteristics: Mr. W. Crawshaw's Wensleydale, Mr. F. Barker's The Sweep, Mr. G. Waugh's Sir Harry Martin, Mr. G. Bland's Rival, Mr. Paterson's Terrona, Mr. Head's Planet, Mr. W. Ellerby's Ashdale and Marston, Major Stapylton's The Streamer, Mr. Arlington's Limerick, Mr. Sterling's The Norman, and Mr. Wheeler's Master of Arts, a bay, and not the mealy chesnut and prize-taking impostor of that name. Coxcomb, in a very poor class of hunters, not exceeding fifteen hands two inches, was declared the winner, a light charger-like animal, or ladies' horse, and well up in doing the pretty business round a circus, or in the Row, for which he is just adapted. Bird-on-the-Wing, who has fined and improved in form since last year, and well known to show goers as a fencer, as for his stylish action, and with his hind legs always so beautifully under him, was much more to our mind, though only placed second. Mr. T. Skinner's Forester is of very good form, and exceedingly bloodlike. Mr. Badham's Eclipse had too much beef on to show to advantage. Major Quentin's Burnt Sienna, is a strong-shouldered cobby hack with a dash of the Arabian. Mr. Brown's Tiny Tim, a wild-looking chesnut, with some shape, and Mr. Harrison's Tillah has length and good ends. The four-year-olds were a capital class, and a great improvement on last year, which was about one of the very worst we can recollect. They came in in batches, and the blue ribbon was handed over to Mulcaster for a very good-looking hunting-like horse of Mr. J. Booth's; but as another batch came in directly after, he had much against his inclination to return it, and it was finally awarded to Comrade, steered by Webster, another well-known performer in the ring. Comrade was bred by Mr. Pease, M.P., and looked something between a charger and one of his celebrated trotting hacks on a higher leg. Borderer, with more hunting characteristics, came in for second honours, and changed hands we heard for 200 gs. Mr. T. Thompson's Byron, Mr. E. Paddison's chesnut gelding, Mr. F. Stafford's Tommy, Mr. Badham's Baronet, Mr. Berridge's The General, Mr. H. D. Boulton's Brown, Major Stapylton's Fitzwilliam, were those that took our eye, while Mr. Grout's Ace of Clubs by Captain Barlow's horse of that name got a commendation. The Ace

of Clubs was by Stockwell, and departed this life a year or two back at Mr. Gerard's establishment. Rapid Bay Adelaide. The thoroughbred stallions comprising, Camperdown, by the Flying Dutchman out of Harry Scurry by Pantaloon, is, like many of the Dutchmen, a light middled leggy animal. Touchwood by Touchstone, out of Bonny Bee by Galanthus, with many of the Touchstone characteristics, was of a better stamp. Deerswood by Orlando, out of Arrow by Slane, was not much to look at. Nutbourne by the Nabob, out of Princess by the Merry Monarch, was a long way the nicest horse of the lot. Anglo Saxon by Ethelbert, out of Griselda by Touchstone, a thick-set short-legged useful country horse. Aleibiades by Cossaek, out of Aunt Philia by Epirus, the well-known steeplechaser, failed to strike us with any reverence for his form as a stallion. He was shown in hunting trim, as he has not yet been used as a stud horse, and struck us as a leggy light-loined mean-quartered narrow animal. Bertie by Newminster, out of Queen Mary by Gladiator, had not much to recommend him besides his pedigree; while Rowsham by King Tom, out of Mentmore Lass, did not move with any freedom; and Diophantus by Orlando, out of Equation by Emilius, though a nice little horse, looked rather lumpy. Amsterdam and Sincerity were entered, but not in the flesh. In the riding horses with fine action, the first horse Sobraon is a good-looking powerful charger, while Angela, with some of the charger characteristics, though rather light in her back ribs, is much freer in her action than the grey Sobraon. Countess is a powerful, useful hack, and originally had the third prize, but owing to some defect in her it was given to Twilight, on the Monday, a gentlemanly hack of Mr. Spencer Lency's. Daisy, in cover hacks and roadsters, is a very handsome, powerful, cobby mare; a nicely dappled grey, with grand action, but more adapted for harness; while the second, Old Tom, is an old-fashioned farmers' cob, with about a ton of flesh on him, and, we think, had no right to a place before Bird on the Wing, who was shown as a cover hack. When Bird on the Wing was handed the third prize, some one gave a horrible shriek that made one's blood almost run cold, for we really thought some poor fellow was in a fit, but it turned out, we are told, to be some one interested in Bird on the Wing. A very agreeable place a horse show would become if everyone that was disappointed kicked up such an unpardonable row. In park hacks and ladies' horses Coxcomb was awarded by the new set of judges a prize. Master Stiggins is a cobby charger-like animal, smothered with flesh, while Beauty is not good-looking enough for the name. Mr. Gurnell's Elegance is a really nice ladies' horse, and Mr. Raine's Grasshopper a fine goer. In the half-bred stallions Fireaway is a powerful dark chesnut, with good action, while Quicksilver is a Norfolk trotter, of good form and action. The well-known American trotter Shepherd F. Knapp, was scarcely noticed by the judges, although this was a class for horses calculated to get trotters,—at Beverley last year, in much better company, he was awarded with a first prize. Mr. Gront's well-known horse Sportsman was present. The stallions of any breed, with an exception or two, were a wretched lot, but the winner, Sir George, was a really handsome, well-made cob. Perfection, a stallion pony, bred by Major Barlow, was one of the handsomest things we saw out. Selim is a powerful Arabian, and was shown well by Mr. Seffert, the well-known steeplechase rider and steerer of Moonraker many years back. The other classes were judged this morning, Monday, and among the harness horses, hacks, cobs, and ponies were several very stylish animals, but a great many of a very common stamp. Expectation, Heroine, Coxcomb, and Comrade came in to compete for the Gold Medal. The contest

lay between Expectation and Heroine, as Coxcomb and Comrade had not the slightest chance; of one there is nothing, while the other is coarse. During the following week it was stated by one that Expectation had enlarged joints, by another, he had a spavium, while a third said he had sprung a back tendon, and a fourth that he brushed; but no one discovered that the horse had two tails, which he really has, for to his foretop he has a dock about the length and size of a man's finger. As to brushing, he has carried Sir Watkin four seasons—a mere infant, who, with the hunting tackle, only pulls down a trifle under twenty stone. We can fancy Sir Watkin making many a horse brush altogether in a quarter of the time.

PRIZE-LIST.

HUNTERS.

JUDGES.—Lord Portsmouth, Lord Coventry, Mr. Henry Chaplin, and for thorough-bred stallions.

Weight carriers up to 15 stone.—First prize of £80 and Gold Medal, to Sir Watkin W. Wyun, Wynstay, Ruabon (Expectation); second, £40, to Captain J. Anstruther Thomson, Charleton, Fife (Iris); third, £20, to Mr. H. Sanders, Brampton, Northampton (Ironmaster); commended, Mr. Booth, Killerby (Brian Boru).

Without condition as to weight.—First prize of £50 and second of £25 to Mr. Henry Spencer Lucy, Charlote, Warwick, for Heroine and Golden Hue; third, £15 to Mr. S. J. Welitt (Loiterer); commended, Mr. Barker (Sampson), Mr. Ellerby (Ashdale), Mr. J. Wheeler (Master of Arts).

Without condition as to weight and not exceeding 15 hands 2 inches high.—First prize of £40, to Major Quentin, Woodleigh, Cheltenham (Coxcomb); second, £20, Mr. F. Barker, Ingatstone, Essex (Bird on the Wing); commended, Mr. Brown's Tiny Tim and Mr. Wright's Pilot.

Four years old.—First prize of £50, Mr. T. Sutton, Middleton One Row, Darlington (Comrade); second, £25, Mr. J. Booth, Killerby, Yorkshire (Borderer); commended, Mr. E. Paddison ch. g., and Mr. J. Grout's Ace of Clubs.

RIDING HORSES.

JUDGES.—Colonel Maude, Mr. J. J. Baillie, and Captain Whitmore.

Fine action and breed, exceeding 15 hands 2 inches high.—First prize of £20, Captain G. Cooke, London (Solraon); second, £10, Lord Rosslyn, Dunmow, Essex (Angela); third, £5, to Mr. H. Spencer Loney (Twilight).

COVER HACKS AND ROADSTERS.

Weight carriers not exceeding 15 hands 2 inches.—First prize of £15 to Mr. H. Frisby, St. James Place (Daisy); second, £10, to Mr. J. Savory, Norwich (Old Tom); third, £5, to Mr. F. Barker (Bird on the Wing).

PARK HACKS AND LADIES' HORSES.

Not exceeding 15 hands 2 inches high.—First prize, £20, Major Quentin (Coxcomb); second, £10, Mr. R. Beart, Raynham, Norfolk (Master Stiggins); third, £5, Mr. T. Cook, Winchcombe (Beauty).

STALLIONS.

Thoroughbred.—Prize, £50 and medal, Mr. B. J. Angell, Lubbenham, Leicester (Alcibiades).

Halfbred, not less than 15 hands high, for getting trotters.—First prize, £30 and medal, Mr. B. Mitchells, Downham Market, Norfolk (Fireway); second, £15, Mr. W. Flanders, Mildenhall (Quicksilver).

Of any breed.—Prize of £15 and medal, Mr. H. Roundell, Otley (Sir George).

Not exceeding 13 hands 3 inches, for getting ponies.—Prize, £10 and Agricultural Hall Medal, Mr. J. A. Ransome, Ipswich.

Prize of £10 for any animal of extraordinary merit, not qualified to compete in any of the sixteen classes, Mr. H. W. Peek, Wimbledon (Selim).

HARNESS HORSES.

Not exceeding 14 hands 2 inches, in single harness.—First prize, £15, Mr. H. Frisby (Dunstan); second, £10, Mr. Grout (The Colone); third, £5, Mr. Gaunt (Rocket).

Not exceeding 15 hands 2 inches.—First prize, £15, to Mr. H. Frisby, St. James's Place (Daisy); second, £10, to Mr. H.

Farquhar, Lowndes Square (Blackstrap). Commended: Mr. P. G. Sechiawi, Craven Hill, (King George).

PARK HACKS AND LADIES' HORSES.

Not exceeding 15 hands 1 inch.—First prize, £20, to Mr. H. Frisby (Dainty); second, £10, to Major Quentin (Burnt Sienna); third, £5, Mr. G. Garnell (Quickstep).

PARK COBS.

High Steppers: not exceeding 14 hands 2 inches.—First prize, £20, to Mr. F. Cooper, Piccadilly (Primrose); second, £10, to the Duke of Wellington (Skewbald); third, £5, to Mr. C. Gates (Princess).

PONIES.

Not exceeding 13 hands 3 inches, in single harness.—First prize, £15, Mr. W. King, Leighton (Tommy); second, £8, Mr. F. Haines, Oxford Road (Mulum in Parvo); third, £5, Lord Cardross (Dun).

THE ISLINGTON MOUNTEBANKS. — The general arrangements were much the same as usual; but we must notice the introduction of a water-jump just in the centre of the arena, which necessitated the judges working either at one end or other of the tan, thus being at an unfair distance from one-half of the occupants of the reserved seats. Now for the jumping itself. "Have you seen the leaping at Islington?" inquired a friend. "No." "Then by all means do so; you will never forget it!" Accordingly we went, and first saw the ponies jump, which was all very well, as it was good fun for the boys who rode them, though we are sorry to say one poor little fellow got a severe rick in the back from his pony "bucking" the gorse, which was as high as himself. Two of them had a shy at the water-jump, and got over very well, going at it like lions, which, by the way, goes to prove, if dwarfs are sharper than giants, as is generally held to be the case in the human race, the reverse holds good with horses; for the big ones for the most part did not see it, and either declined, or jumped most unwillingly. They thus showed themselves to be much wiser than their owners and riders. When the horses came in, the scene of uproar and confusion was beyond all description, some riding one way at a fence, some another, at one and the same time, hacks, hunters, and cobs of low degree being mixed up in one confused mass. The secretary mounted a hack, and "tittupped" about in the *mêlée*, gesticulating and imploring them to keep order, but all to no purpose. He was wise in his generation; for it was exceedingly warm for what Dickey Boggledike termed "the fut people"—and the poor fellows who repaired damages and kept the tan raked were in a position that receiving cavalry in square would be a fool to. One of them was so near jumped upon that the horse's head knocked off his hat, and he only saved himself by scuttling away in the most ludicrous fashion. Then the riding was a sight to witness. Few men, except the very *élite* of our amateurs, escape making themselves ridiculous when they get up in public, either for racing or steeple-chasing; but here, where the *oi polloi* attempted to "witch the world with noble horsemanship," the effect beggared description. Could they but see themselves as others see them, many a man would decline playing the clown on horseback. One gentleman managed to get thrown over into the arms of the crowd, who kindly and considerately threw him up into his saddle again, amidst roars of laughter. Another came down, and laid gasping like a flat fish, whilst his horse deliberately trotted along his back, luckily without injury. Then there was great splashing into the water-jump by those who condescended to try it, which was a small minority, however. One or two got pretty well over; but with them negotiating Mr. Sidney's puddle would be held by hunting-men to be but a poor passport to safety over a country; in fact, a couple of little ponies, as we said above, did it as well as anything. No wonder such crowds are attracted; for it is the most ridiculous and laughable exhibition in London, and surpasses all that Leech ever conceived of fools on horseback. One or two will be killed some day; but as no one with any sense would trust himself in such a situation, perhaps the mourning won't be very great when it happens.—*The Sporting Gazette*.

THE FATAL ACCIDENT AT THE HORSE SHOW.— On June 10th Dr. Lankester held an inquest at the Angel, Islington, on the body of Mr. Francis Barker, aged 55, horse dealer, of Westlands, Ingatstone, who fell with his horse,

while riding round the ring at the Agricultural Hall, on Monday afternoon, and died on Wednesday night. Mr. Barker's son said that his father was riding Forester, the property of Mr. Skinner, to show it for sale. The witness did not know whether the horse was vicious or not. Mr. Thomas Mashiter, of Priest's Estate, Romford, said he saw Mr. Barker in the ring on the Monday. The horse kicked out two or three times violently, but he got him to settle down. He walked him

round to where the exit door was. The horse wanted to get out of the ring, but deceased would not let him. The horse then reared, fell over backwards and lay on deceased, completely covering him. If deceased had not been so good a rider he would have fallen off when the horse reared, and would not have been hurt; but as the horse reared he bent with the horse, and kept on his back, so that he was carried over with him. A verdict of accidental death was returned.

HIGHLAND AND AGRICULTURAL SOCIETY OF SCOTLAND.

The general meeting was held in the Society's Hall, George IV. Bridge, Edinburgh; his Grace the Duke of Buccleuch in the chair.

One hundred and forty-three new members were elected.

Mr. WALKER (Bowland) said he had been requested by Mr. Anthony Murray, who was unable to be present, to submit to the meeting a proposed alteration in bye-law No. 2. The alteration had been submitted to two meetings of directors, in terms of the charter, and now it was reported to the general meeting of the Society for confirmation if they thought fit. The present bye-law to which he referred was to the following effect: "That tenant-farmers, secretaries, and treasurers of local agricultural associations, factors, and proprietors, farming the whole of their own lands, whose assessment in the valuation roll does not exceed £500, shall pay at admission, and afterwards annually, in advance, the sum of ten shillings, with the option and power of redeeming the same by payment of five guineas, as the purchase of a life subscription, and which life subscription may be so purchased, under deduction of any annual payments that the member may have previously made, with this limitation, that at no time shall a member have the power of redeeming the annual payments for a less sum than £3." The bye-law as proposed to be altered was as follows: "That all tenant-farmers, who are not also proprietors of land to an extent exceeding £500 per annum, and all secretaries and treasurers of local agricultural associations, resident agricultural factors, and others, whose incomes do not exceed £500 per annum, shall pay at admission, and afterwards annually, in advance, the sum of ten shillings, with the option and power of redeeming the same by payment of five guineas, as the purchase of a life subscription, and which life subscription may be so purchased, under deduction of any annual payments that the member may have previously made, with this limitation, that at no time shall a member have the power of redeeming the annual payments for a less sum than £3." The object was to define and explain more accurately than the present bye-law did the persons who were entitled to its benefit, and in some respect to extend the operation of the bye-law.

Sir JAMES GARDINER BAIRD said the alteration would admit on the reduced rate gentlemen who were in no wise connected with the land. He would ask if it was advisable to bring in everybody as members of an agricultural society who had no interest in agriculture or in land at all. He doubted whether such a step would tend to the advantage of the Society. For his part he would not care if these persons did not come in at all.

Mr. WALKER said he did not think that Sir James Baird had quite accurately stated the nature of the case, because one of the objects—the main object—of the proposed change of the bye-law was to admit at a reduced rate of payment several classes of people to whom they, as agriculturists, had a very intimate relation, directly and indirectly. These were the agricultural implement makers, to whom the shows of the Society were very greatly indebted, breeders of poultry, tradesmen, and various other parties who were either directly or indirectly interested in agriculture and agricultural operations, and whose assistance this society required. At present these persons, because they had not a certain amount of land, were not eligible, and it was thought it would be desirable if the bye-law was extended so as to embrace this class.

Professor RANKINE asked if it would not be possible to define who those others were that would be brought under the operation of the bye-law. There was an objection to admit all persons indiscriminately whose income fell below a certain amount at the reduced rate. This was a thing that had never

been done with any society for the cultivation or promotion of art or science, and he did not think sufficient reason had been shown for their adopting it. In special cases, no doubt, there were special reasons for doing something of the kind, but these cases, in his opinion, should be specified.

Mr. WARDLAW RAMSAY said, after hearing the explanation of Mr. Walker, he felt that the proposal was a wise one. He, however, would like if a limitation was made as to the persons to be eligible under the proposed bye-law.

Mr. DUNDAS (Ariston) said that the directors were not altogether unanimous as to the recommendation that they should make, and it was clear that the meeting were scarcely prepared to accept the alteration without further consideration. He moved that the subject be remitted back to the directors for re-consideration.

Professor RANKINE seconded the amendment.

Mr. ORD (Muirhouselaw) seconded the approval of the proposed alteration, believing that it would have the effect of strengthening the Society.

A show of hands was then taken, when the amendment was carried, and the matter was accordingly remitted.

Mr. KINLOCH (Gilmerton) gave in a report of the arrangements for the Dumfries show, to be held at Dumfries on the 26th, 27th, 28th, and 29th of July. The following table shows the entries which have been made for the forthcoming show, with the entries at the show in 1860, for comparison:

	1ST ENTRIES.	
	Dumfries, 1870.	Dumfries, 1860.
Cattle...	360	298
Horses ...	170	166
Sheep... ..	715	558
Swine... ..	72	54
Poultry ...	375	216
Dairy produce	123	195
Implements ...	1,650	911
	3,465	2,398

The SECRETARY read the following report from Dr. Anderson: "The business of the chemical department during the past half-year has been carried on in a satisfactory manner. The number of analyses, though not quite so large as during the corresponding period of last year, has been quite up to the average, and has embraced the usual variety of work. Although the state of my health has not enabled me to engage in actual analytical work, every analysis has passed through my hands, and I have been able to express my opinion as to the quality of the manure it represented. As regards the manures examined, the point which most especially merits the attention of the farmer is the general inferiority of the Peruvian guano imported during the present season. I have already, on various occasions, pointed out that during the last few years Peruvian guano has by no means reached the standard which it formerly had, but that the ammonia, which once generally exceeded 17 per cent., has latterly rarely reached 16 per cent., and has often been not more than 15 or 15.5, which at present prices is equal to a diminution in value of about £1 per ton. During the present season much Peruvian guano has been imported containing from 5 to as much as 10 per cent. of sand, and only 12 or 13 per cent. of ammonia. Such samples are certainly not adulterated, but are in the condition in which they are taken from the deposit, and show that the excavators have come upon a portion which is of a lower quality than that with which we were formerly supplied. However this may be, it is obvious that the farmer should at

the present time exercise unusual caution in the purchase of Peruvian guano, even when it comes from sources which, under ordinary circumstances, would be considered above suspicion. The deliberate adulteration of Peruvian guano is not frequent at the present moment, but several cases have occurred in which from 10 to 20 per cent. of gypsum have been used for that purpose. A good deal of inferior dissolved bones have been in the market, made either from bones which have been boiled for the extraction of gelatine, or by adding a considerable quantity of bone-ash. The use of this article enables the manufacturer to obtain a more pulverulent and drier product than can be produced without it, while it is still guaranteed as made entirely from bone without admixture of mineral phosphates, although the diminution in the ammonia materially affects the value. Small quantities of coprolites and other cheap materials are also frequently used, and it is now comparatively rare to find dissolved bones made solely from raw bones and acid as those sold twelve or fifteen years since usually were. Of course there is abundance of excellent dissolved bones in the market, provided the farmer uses proper precautions in purchasing; and it will generally be found that the best bargains are obtained by taking the higher-priced articles. The feeding stuffs analysed have been of the usual kind, and have shown the usual proportion of good, bad, and indifferant samples. Two or three samples of adulterated rapecakes have occurred, which is unusual, the low price of that substance making it difficult to find a substitute for it. In the cases examined the material was a heterogeneous mixture, containing a little linseed, rape, Indian rape, mustard, and a quantity of vegetable débris of various kinds, so disintegrated that it could not be identified; and the best account I can give of it is that it might be the sweepings of a warehouse floor. It is not likely that adulteration of this kind can be carried on to a very large extent; but that it is possible is worthy of notice. The field experiments extending over a rotation are still in progress; and the plots this year are in grass for hay. Next year will complete the rotation, when it is hoped the results may prove important and instructive. In conclusion, I must express my most sincere thanks to the Society for the indulgence accorded to me during the past winter, by which my health has been materially improved, though not as rapidly as I hoped and expected. My medical advisers think that I am not yet in a condition to resume active work; but I trust that at no distant period I may be able for it. Meanwhile, I have done all in my power to protect the interests of the Society, and I venture to say that they have not suffered from my enforced absence.

Mr. HARVEY, Whittinghame, drew the attention of the Society to the desirableness of having an officer resident in Edinburgh to whom the members could apply for any chemical analyses of manures, or for any other information which they might require in connection with the cultivation of their lands. He suggested that the directors should take that matter into their serious consideration at the earliest opportunity.

Dr. BALFOUR reported that the two prizes of £6 and £4 annually given by the Society to the students in the agricultural class in the Edinburgh University who pass the best and second-best examination were this year awarded to John M'Dowall, Stewarty of Kirkcudbright, and Robert M'Cracken, Wigtownshire.

The Chairman of the Committee on the Forestry Department stated that on a report by the Woods and Forests Committee, the directors had resolved to institute examinations in the Department of Forestry, and to grant first and second class certificates bearing the arms of the Society, and signed by the president, the examiners, and the secretary of the Society. It is proposed that the next examination should be held about November.

Dr. BALFOUR suggested that in regard to forest appointments in India a memorial should be sent by the Society to the Duke of Argyll, Secretary of State for Scotland, in the following terms:

"The Highland and Agricultural Society of Scotland was established in 1784, and incorporated by Royal Charters granted in 1787, 1834, and 1856—the latter charter being to prescribe a curriculum for agricultural education and to grant diplomas. Your memorialists as representing the nobility, landed proprietors, and all who are interested in the management of landed property in Scotland, and in the

education and training of young men in every branch of practical knowledge connected therewith, have seen with satisfaction that the Secretary of State for India has thrown open to competition the appointment of forest officers in India, and laid down a general course of education to be followed by the young men who are selected. Your memorialists, however, observe that it is made obligatory that the selected candidates should, after the preliminary examination, proceed to the German or French forest schools for two years and a half to obtain special and technical education, on which they are to be further examined before proceeding to India; and they understand that this has been deemed expedient in consequence of the absence of any recognised system of education in forestry in Britain. There can be no doubt that an inspection of some of the great Continental forests may be advantageous to the candidates; but with great respect your memorialists submit that for the following reasons such a visit of inspection is unnecessary: 1st. The subjects allied to practical forestry specified to be studied abroad, viz., land surveying, levelling, road-making, elements of agriculture, botany, zoology, practical mathematics, &c., can be better studied at home. They are efficiently taught in our schools and colleges, and examinations are held therein, and certificates of competence granted either by them or by this society. 2nd. The plan of sending the young men to study forestry abroad is most inconvenient to parents, removing them entirely from their parental control at a critical age; and such a system of forestry education would be liable to interruption in the event of a Continental war. 3rd. The valuable experience of those in Britain who have formerly lived in India, both as to Indian forestry and botany, and in the management of the natives, will be lost to the students, as will also the experience of the Forest Officers themselves who return here when their term of service expires. 4th. However proficient the students may be, either in German or French, it is improbable that they will be able to acquire the technicalities of their education with so much facility as they would do in their native tongue. 5th. By pursuing their studies in this country the candidates would have the opportunity of being instructed by persons skilled in the general land laws of India, which, it is submitted, would be more to the public advantage than that a large portion of time should be devoted to the study of the Continental Forest Laws. 6th. The knowledge, experience, and other requisites for education in forestry already exist in this country. The two millions of acres of woodland (of which 125,000 belong to the State) are amply sufficient for all educational purposes, and there are special advantages enjoyed in Britain which are not to be had on the Continent. 7th. That your memorialists have for more than sixty years directed their attention specially to advancement of practical forestry generally, and have given great encouragement by means of prizes for essays and reports on the management and general treatment of woods and plantations. They have contributed largely as a body and by their members, to the introduction of many valuable forest trees suitable to the climate and wants of the country. 8th. Your memorialists have also recently instituted a system of examination in forestry, and grant certificates to candidates of merit as exhibited in the accompanying syllabus. 9th. That while your memorialists consider the organisation of a system of forestry education in Great Britain as a matter of the greatest importance for the education of forest officers for India, they deem it also a question of vast importance to this country, as well as her various colonies. Your memorialists would therefore propose that the candidates for all Government Forest Appointments be allowed to acquire their special technical education without any restriction. And your memorialists will ever pray.

(Signed)

"Edinburgh, 1st June, 1870." "TWEEDDALE, President.

The CHAIRMAN thought it was of great importance that candidates for India Forest appointments should acquire a knowledge of Hindostanee and Arabic, in order that they might be properly understood by the people amongst whom they were located. It was also necessary that they should learn a great deal more in regard to the nature of the people with whom they had to do, and the implements generally used in that part of the world. The Royal Horticultural Society in London had prepared a memorial very much to the same effect as that proposed by the Highland Society of Scotland,

and it was intended if possible that both motions should be taken up at the same time. The precise time, however, would not be fixed before he (the Duke of Buccleuch) was able to go back to London, and to meet the Council on that subject.

The memorial was then agreed to.

Mr. GILLOX (Wallhouse), read the report of the veterinary department, which gave a detailed account of the results of the examination for the Society's veterinary diploma. He also reported that the directors had recently under their consideration a letter addressed to Professor Dick's Trustees by Professor Williams, suggesting that there should in future be two examinations for the Society's veterinary diploma every year instead of one—namely, the usual examination in April and another about Christmas—as two examinations in the year were of great advantage to many of the students who might be rejected. The proposal was unanimously agreed to by the Board, and would be carried out during the present year if a sufficient number of students (say six) presented themselves.

Mr. GILLOX then brought under their notice the Charlier system of horse-shoeing, and stated that the result of his visit so Paris for the purpose of making inquiries into the subject was that he had become quite converted to this method of horse-shoeing. People, he found, who had tried this system in France, had never given it up.

Sir WALDEGRAVE LESLIE asked if there was any possibility of seeing horses shod on this principle at the Dumfries show? It was important that their country blacksmiths should see for themselves that it was not necessary to cut away the frog. The fact now was, that in the matter of shoeing they were imitating the high heels of the "Girls of the Period," and were giving their horses high heels in order to give them a sort of graceful "Grecian bend" (laughter).

The noble CHAIRMAN said there was no difficulty in getting any number of specimens as to how horses ought to be shod. The idea of shoeing draught horses was to get the greatest amount of iron and the highest possible heel. It was not the driving of nails into the horses' feet that caused injury, but it was by making them go like the ladies did, and to which reference had been made, with the wrong muscles brought into play.

The subject was referred to the directors.

Mr. GILLOX reported that the following premiums had been awarded for papers in competition since the general meeting in January:

The medium gold medal, or £5, to George Bruce, Veensgarth, Lerwick, for a report on the Improvement of Natural Pasture without Tillage.

The medium gold medal, or £5, to Charles Paterson, Cammersey Cottage, Aberfeldy, for a report on the same subject.

The silver medal, to George Carr, Westhill of Park, Drumoak, Kincardineshire, for a report of Improvement on the Farm of Westhill of Park.

The silver medal, to C. Y. Michie, forester, Cullen House, Cullen, for a report on the Effects of the Dry Season 1863 on Trees and Shrubs.

Mr. KINLOCH (Gilmerton) moved that the Society petition Parliament against the tax upon the use of guns being applicable to persons employed in protecting crops from birds, provided they hold written authority from their employers.

Mr. SCOT-SKIRVING seconded the motion, which was agreed to.

A vote of thanks having been passed to the chair, the meeting then rose.

LOCAL TAXATION.

A dinner took place in the Poultry Market at Taunton, under the auspices of the Central Chamber of Agriculture, with the especial object of discussing this subject. The meeting, however, appeared to have excited but little interest, and, as will be seen, not a single Somerset or Dorset farmer spoke to the question.

Sir MASSEY LOPES, M.P., who was in the chair, opened the business by saying that Mr. Goschen, the President of the Poor-law Board, told us but a very short time ago that an amount of thirty millions per annum was raised by local taxation. He need not remind them that amount far exceeded the interest of our national debt; it was almost equal to the sum expended upon our army, navy, and civil service; and it was almost as much as half the amount

that was raised for imperial taxation for the whole purposes of this country. They would all agree with him that it was a question of great magnitude. From the very first its promoters had endeavoured to drag it out of the range of party politics. They did not consider it a party or political question, or a question which affected class interest; but, on the contrary, they said it was one which concerned the whole nation and the whole community. It had not been agitated only of recent times. He might say that for the last twenty-five or thirty years great and general dissatisfaction had been felt with regard to the injustice of raising what was called local taxation. Since the year 1845, which was the date of the Common Law Repeal, this question had been continually cropping up. Previous to that time the landed interest had at all events some compensation—some privileges in compensation he might say—for that large amount of rates which they were called upon to pay. They had it in the shape of protective duties. But he need not remind them that those privileges were gone, and he was bound to say that he didn't regret it. But what had raised this question and given renewed energy and activity to it of recent years? Why it was the enormously increased and increasing amount, not only of their old charges, but more than that—it was the imposition of new charges. And more than that, he said it was the contemplated, the threatened addition of still further charges upon one description of property. Let him remind them that these impositions were not only pending and threatening, but they were immediately imminent upon us now. Let him call their attention to the education rate that was proposed to be put upon one interest, one description of property alone. That additional rate of 3d. in the £ would be £125,000 a-year. Next, they were also threatened with a turnpike-charge, and he would tell them that those charges were coming upon them. They had a Turnpike Continuance Act, and only by that Act this year £200,000 a year were imposed upon the real property of this country. Well, then, he said they were not crying out before they were hurt, but, like children that had been burnt, they were very much afraid that they should be scorched a great deal more. Well, what did this enormous increase of rates amount to? During the last thirty years the increase of poor-rate alone upon real property had been 70 per cent. increase, and upon the county-rate 200 per cent. But to take a shorter period, within the last six years the increase of poor-rate had been 30 per cent. and county-rate 50 per cent. The hardship was this: that one-seventh only of the annual income of this country was paid for all that increase—one-third only of that property which was assessed to income-tax was paying for what he said were national responsibilities. Well, then, he said this was a state of things which was perfectly unjustifiable and infeasible. It was absolutely necessary that we should have some reform and some revision of this rating system; and nothing but a radical re-adjustment of it would settle it. He denied *in toto* the allegation that if the agriculturists paid more than their share of local taxation they were favoured by imperial taxation. As to the proposal of Mr. Goschen's Local Taxation Committee (Limited) to divide the rates between owner and occupier, to that he expressed decided disapproval. The first thing to be done before bringing forward a remedy for the grievance was to classify the rates, to see what were really local and what were really national; and then the next thing was to find out who ought to pay them. He laid it down as an unalterable maxim that every man in proportion to the security of his property which he received, and in proportion to the security of his person which he received, was bound equally to contribute towards those national charges which made his person and his property secure, according to the means and the ability which God Almighty had given him.

Sir LAWRENCE PALK proposed the first resolution:—"That this meeting protests against the present unjust exemption of income derived from personal property from contributing towards the various objects for which funds are now raised by local rates, and is strongly of opinion that this grievance affects owners and occupiers of house property in towns quite as much as the landed interest, and therefore that both descriptions of property are equally interested in the removal of this anomaly."

Mr. PIPER, Secretary of the Swindon Chamber of Agriculture, seconded the resolution, which was carried.

Major ALLEN, M.P., proposed "That the proposals to include within the rating area certain classes of real property hitherto exempt, and to divide the payment of rates between owners and occupiers, do not afford any remedy for the grievance complained of in the unequal incidence of local taxation; and that no settlement of the question can be accepted as final or satisfactory which is not preceded by a thorough inquiry to determine whether the objects now locally provided for are of local or national obligation."

Mr. DUCKHAM, from Herefordshire, seconded; and Mr. CLARKE, the Secretary of the Central Chamber, "supported" this resolution, which was carried.

Mr. GORE-LANGTON, M.P., proposed "That, until the question of local taxation reform has been satisfactorily dealt with, this meeting pledges itself to oppose most strenuously the imposition of any fresh rates on the present unjust basis for such purposes as national elementary education, expenses of elections, turnpike-roads, &c."

Mr. HOLLEY, of the Devon and Cornwall Chamber, seconded, and Professor WRIGHTSON, of the Cirencester Chamber, "supported" this resolution, which was carried.

YORK CHAMBER OF AGRICULTURE.

The members of the York branch of the North Riding Chamber of Agriculture held a meeting at the Queen Hotel, Micklegate, Mr. Kilby (Appleton Roebuck) in the chair.

Mr. J. SOULBY proposed, "That this meeting is of opinion that the licence to carry a gun should not apply to guns carried upon lands in the occupation of the owner of the gun, and decides to petition in favour of Mr. Read's amendment to that effect."

Mr. DUFFITT (Whitwell) seconded the motion, which was adopted unanimously.

Mr. FREER (Harton) moved, "That this Chamber is of opinion that the abolition of the foot hawkers' licence would be a great encouragement to vagrancy and of pretending to be hawkers, and would approve of the reduction of the licence but not of its total abolition."

Mr. CUNDALL (Askham) seconded the resolution, upon which

Mr. CUNDALL (Acaster) moved an amendment to the effect that the foot hawkers' licences remain as at present, and that no alteration be made in them.

This amendment, on being submitted to the meeting, was adopted by a considerable majority.

Mr. CUNDALL (Acaster) proposed that, in the opinion of the Chamber, the game-laws ought to be entirely abolished. They were rotten to the very core, and nothing short of total abolition would meet the necessities of the case.

Mr. WALKER (Hay-a-Park, Knaresborough) seconded the resolution.

Mr. DUFFITT proposed as an amendment, "That it is the opinion of this meeting that the provisions of the Government Game Bill are objectionable, and of no value to the tenant-farmers; and it considers that hares and rabbits should be omitted from the game list altogether; also, that a petition should be presented to Parliament in accordance with this amendment."

Mr. CUNDALL (Askham) seconded the proposition, and it was carried by a majority of 10 against 4.

Mr. CUNDALL (Acaster) moved, "That this Chamber regards the proposed regulations as to the allowing farmers to sprout barley, without drying or malting it, as totally useless to them, and would, therefore, urge the desirability of the total abolition of the malt-tax."

Mr. FEARBY seconded the resolution, which was agreed to.

ESSEX CHAMBER OF AGRICULTURE.

Subjoined is a summary of the proceedings at the meeting, as held at Chelmsford, Colonel Brise, M.P., in the chair.

The subject of the Game-laws was introduced at the last meeting by Mr. W. BROWN (Braintree), who now proposed the following resolutions:

1. That the landlord and tenant should have equal right of sporting over the lands that are let by one party and hired by the other.

2. That all game upon enclosed lands shall be the property of owners and occupiers of such lands.

3. That in lieu of the present Game-laws, a stringent law of trespass should be enforced against all unauthorised persons.

Mr. POWELL (Coggeshall), proposed the following amendment:

"That the Game-laws be abolished altogether; that the law of trespass be made more stringent; and that all game be considered the property of the occupier of the land on which it is."

This was seconded by Mr. HOLTON (Bures).

Mr. BROWN withdrew his original resolution in favour of the amendment, which on being put was carried unanimously.

Mr. J. S. GARDINER (Borley, Sudbury), then read a paper upon "Tenant-Right, not Landlords' wrong," moving the following resolution:

"That in the opinion of this Chamber it is highly desirable that a simply defined law of tenant-right should be passed by the Legislature for securing to the tenant compensation for unexhausted improvements on his holding."

Mr. FOSTER (Great Totham) seconded this resolution, which was agreed to unanimously.

Mr. J. SMITH (Saling) called attention to the present constitution of the Central Chamber of Agriculture, and moved a resolution:

"That the Central Chamber should consist only of representatives sent by local chambers in the ratio of the number of their members, and the amount of subscription sent by them to the Central Chamber."

Mr. JAMES YOUNGMAN (Woodham Ferris) seconded this resolution, which was carried unanimously.

THE ROYAL AGRICULTURAL BENEVOLENT INSTITUTION.

The annual general meeting was held at Willis' Rooms, to receive the annual report of the Council for the year ended on the 31st December, 1869, and for the election of officers and pensioners. Mr. Mechi in the chair.

The report having been read and adopted, the Council proceeded to the election of pensioners. The following is the list of the successful candidates:

MALE PENSIONERS AT £26 PER ANNUM EACH.			
		Votes.	
Gurney, Josh. Randall	310	Horley, Henry	259
Johnson, Robert	293	Paine, William	253
Hewett, Thomas	289	Attwater, William	247
Parris, George	266	Parsons, Aaron	245
Keer, William	266	Dangerfield, Thomas	221
MARRIED PENSIONERS AT £40 PER ANNUM EACH.			
Wm. and Sarah Legg	353	E. and E. A. Bateman	271
J. and M. Scammell	312	J. and M. Pamphilon	209
James and Eliz. Lane	305		
FEMALE PENSIONERS AT £20 PER ANNUM EACH.			
Pank, Mary Ann	567	Sadler, Susanna	292
Curtis, Ann	540	Rowson, Harriet	292
Jewhurst, Sarah	519	Nope, Elizabeth Ann	289
Bromhead, Elizabeth	504	Taylor, Ann	274
Kirkby, Jessica	463	Attrill, Elizabeth	253
Lockyer, Mary	415	Posnet, Elizabeth	223
Fever, Frances	398	Underwood, Sarah	224
Peacock, Catherine	327	Hart, Mary	221
Kniveton, Mary Ann	322	Marshall, Elizabeth H.	216
Ray, Hannah T.	313	Paine, Harriet	196
Simson, Mary Anne	298		

THE FOLLOWING ORPHAN CHILDREN WERE ALSO ADMITTED:

William Steane.	Harry Knight.
Christopher Cotching.	John Earham Turner.
John Inckle.	Arthur Wood.
John Bull.	Mary Thornton.

SALE OF MR. W. TIPPLER'S SHORTHORNS.—This herd was sold at Roxwell, on June 7th, by Mr. John Thornton. Amongst the chief prices for cows and heifers were Duchess, Mr. W. H. Walker, Shenfield, 25 gs.; Gay Lass, Barou Magnus, 37 gs.; Charmer, Mr. J. Christy, 26 gs.; Miss Bradford, Mr. A. Durrant, 26 gs.; Diana, Baron Magnus, 42 gs.; Gertrude, Mr. J. Pybus, 31 gs.; Bessy Bell, Mr. Wheatley, 25 gs.; Florence, Mr. J. Pybus, 27 gs.; Georgiana, Mr. J. Pybus, 34 gs.; Spot, Baron Magnus, 25 gs.; Grafton Lass, Baron Magnus, 30 gs.; Ringlet, Baron Magnus, 45 gs.; Geraldine, Mr. Wheatley, 33 gs.; Empress, Mr. Coleman, 28 gs. For bulls, Duke, Mr. Wenden, 39 gs.; Lord Grey, Mr. Howard, 36 gs.; General, Baron Magnus, 33 gs. The average was very low.

CALENDAR OF AGRICULTURE.

The sowing of turnips must be finished early in this month, in which the crop is thought to be less exposed to mildew than in June, and that the fly is not so prevalent as in last month. This later season is used in the eastern counties. Sow the turnips as directed last month.

Horse and hand-hoe potatoes, beet, and the earliest-sown swedes, and repeat the processes till no weeds appear. For general use, the best drill sculler is the miniature plough of wood or iron, drawn by one horse, as the narrow-pointed share pierces the hard bottom of stiff soils, which deny the same depth to the coulters of the duck-foot, and to the knives of the winged scullers. This superiority is very beneficial on any green-crop lands, but chiefly on the stiff soils that produce potatoes, beet, and cabbages, which are strong growing-plants, and require a deep working, to encourage the growth. A furrow being deeply ploughed away from the sides of the ridglet, the earth and the weeds are placed in a comb in the hollow, and present a fine operation to the light sculler of a front coultter and posterior expanding wings, with knives, which follows the first performance of the miniature plough, that precedes the first operation of the hand-hoe. The light sculler may be twice done, and after a time be followed by a second ploughing, and succeeded by sculling till no weeds appear, and the second hand-hoeing having been performed. The destruction of weeds with the following and pulverization of the soil of the intervals of the ridglets in green-crop farming, forms a chief feature of cultivation, and exhibits a very marked distinction between neglect and an approach to perfection. The ploughing and scarifying of the intervals in the driest weather raises exhalations that are imbibed by the leaves of the young plants with much benefit. Two ploughings may be sufficient, with scullings that appear necessary, to destroy the weeds and move the furrow from the plough, the last application depending on the former.

The number of coulters in any drill-sculler, whether wholly duck-footed or in the form of a single share, prevents the implements from piercing the soil, and carries it lightly over the surface; while in wet climates, and on damp moist lands that grow an abundance of weeds, the close position of the coulters collects and holds an aggregation of earth and weeds that cling to the implement, and is carried along by it with much inconvenience, and often with a total obstruction. In such cases of soils and weeds, the knives or expanding wings are not free from incumbrance in carrying along the collections of earth and weeds, and require a curved backward shape of the knives. The miniature plough, with a narrow-pointed share, with one wing or feather, will penetrate to any depth; and by laying aside the coultter when necessary, the earth and weeds are made to slip along the mould-board, and discharged without inconvenience.

Two miniature ploughs of wood, placed apart at the distance of the width of a drill, in 26 to 30 inches, and fastened in this position by slantbars, placed over the beams, form a very effective drill sculler, which is of an easy construction, simple, and cheap. The implement is drawn by two horses walking abreast, in a distance apart of an intervening drill, from the sides of which each plough lays a furrow into the interval on the right and left, thus finishing an interval of ground at each movement in the length of the field. The work is very effectually done; but the objection still remains that two points of shares are not so conveniently commanded as one in the necessary alterations of depth and width; and in the case of the under soil of the stiffest green-crop lands, the single share will be found the most effective

in piercing the soil, uprooting the weeds, and in affording earth, to be wrought and pulverized into a recipient of moisture and caloric, that is favourable to the equable distribution of those most essential agents of every organized life. The single plough moves twice in an interval, and may seem to consume time; but true economy consists, not in getting things cheaply done, but in getting them well done, a point not often considered, and seldom practised.

Clay fallows will receive the third earth of ploughing, harrowing, and rolling during this month; the softer clays will be pulverized, to permit the removal of weeds and stones, which the more waxy marine formations of that body will best bear an open exposure of the plough-furrow, to be baked by the sun, and fall into pieces from the rains and lengthening nights of the two following months. The dung and lime may be got ready that is intended to be applied.

Clovers and vetches will be abundant, and form the green food of the farm. Cut the herbage in a daily freshness for work-horses, milch cows, and swine, all which must have an ample supply of litter, in short-cut straws, in level yards and comfortable shelter sheds. The cows to go over-night into the shed and yard, and aid much in the production of manure; the pasture-field being in the nearest proximity to the farmery, for the purpose of an easy passage to and from the yard. In making manure moisture is an essential element, and must be provided by increasing the urinary liquids from animals by the use of green food. This point forms a very large consideration in the arrangement of animals and crops.

Continue the folding of store sheep, both on arable and grass lands. It forms a most valuable application in all inland situations of uplands for the growth of turnips and rape. In situations of the maggot fly depositing the larvæ on the animals, apply over the body the contents of the dredging box, as has been mentioned, and dress clean the posterior parts of the animals from the adhesions of excrements. Wean the latest lambs, and place them on the best pastures. Put mares to the stallion regularly. The cattle in the fields must have a full supply of water, with shelter shed from heats and rains; fences without any gaps, and gates in an order of being easily opened and conveniently shut, both for convenience and serving as a fence. These points and all minute applications raise the art into repute, and exhibit the artist as a professional character. Anything that is worth doing at all, is worth doing well.

The hay harvest will be concluded during this month. Make dry, and carry the herbage quickly into oblong stacks; lay it lightly together, and allow it to settle down by its own weight, rather than tread it firmly together by the pressure of treading. Pull nothing from the stacks till well settled; then dress it into any form, and thatch it without delay. For the purpose of getting up hay to a high stack when being built, use a scaffold, raised on four upright posts, resting below on a four-wheeled platform, and elevate or depress the scaffold to any height that may be required, by means of pulleys, and lay some loose straw on the top till thatched. A water-proof tarpaulin cloth will defend the stack from rain during the building, and must be removed early in the mornings, to let the sweating of the grass escape. In showery weather a light cloth may be suspended over it, by means of a rope passing the length of the stack, and attached at each end to an upright pole.

The site of hay-stacks will get a fixed position in the disposition of rick-yards of grain in rows, covered by a

roofing of zinc or corrugated iron, resting on upright pillars of cast metal. This arrangement saves the whole expense of thatching, and the risk of damage from rains that fall previous to the thatching of the ricks, which often happens in wet climates. The roofs will be formed in moveable pieces, that are fixed by screws to the platform that rests on the upright pillars, and removed during the building of the hay-rick, to prevent any inconvenience from impeding the harvest work, and immediately fixed in position when the building is finished. The tarpaulin cloth that has been mentioned will defend the stack during the building, if rains occur. It is most serviceable to make hay as green and juicy as possible, and for this end small quantities of the herbage must be placed together in daily or very frequent additions, to allow the perspiration to be gentle, and easily and quickly evaporated. A fixed roof over the stack will most powerfully lead to this end, and relieves all anxiety with respect to any damage being sustained from rains. The formation of rick-yards, arranged and covered as has been mentioned, cannot be much longer delayed, employing in addition to roofs of iron, the use of railways to convey

the grain to the barn, the use of steam to thrash the grain, to cut hay and straw into short lengths for provender and litter, and to convey the latter on a travelling carrier resting on triangular legs to the cattle yards and other places, as required. This combination uses the steam and the rail—the mightiest powers yet given to man, and, along with Free-trade (*en passant*), will overthrow the whole moral and social world. This truth is not a glow-worm, shining only in the dark, nor as a fire-fly, that shines only when it flies, and stagnates when it stops; nor is it a “Scientiæ media” that may rise above conjecture, but falls below certainty—all and every certainty bears indisputable evidence to the power of these agents.

The grain harvest will commence this month in early localities. Early peas, barley, and rye will be first cut. Peas are ripped from the earth by hand-sickle, placed in rows of bundles, that are frequently turned over till dry—but not too dry, which opens the pods. Rye and barley are tied into sheaves, placed in shocks, and carried when dry into ricks or barns, of which the stands must be ready, and the floors cleared out.

CALENDAR OF GARDENING.

KITCHEN GARDEN.

In the early days sow peas again, any short kinds, the crop “may” be fine, and therefore acceptable in September. Sow early the last crop of scarlet runners and French beans, and kidney beans, twice in the month, endive in the same way. Sow turnips and turnip-radish for succession. Sow some rows of cos lettuce, white and red turnip varieties, radish, carrots, and salading as required. Sow all onions for drawing young, and in poorish land a few large bulbs to stand the winter, and subsequently transplant for an autumn crop.

After the second week sow cabbage seed for cole-worts, called “greens,” one of the sweetest of spring vegetables. In the end of the month sow spring cabbage for early hearting in some situations.

Early in the month sow round-leaved spinach, and the winter or prickly sort; at the close of the month sow a full crop of turnips at different times, white, half-hardy, and yellow sorts, to come in early, and also stand over winter.

Transplant borecole at various periods for early and later spring supply, choosing, if possible, a moist state of soil; otherwise, if the weather be dry, every hole must be filled with water. If the ground be rich in nitrogenous manure, some soot mixed up with spit dung would be useful, as it contains salts of ammonia. May-sown cauliflower may be treated in the same manner.

Transplant celery for the last crop; the former plantings are to be carefully earthed up, and in closing this for the first and second times hold each plant compactly with one hand, while the other applies fine earth close around the lower part of the leaves, but not so high as the growing hearts. Give water copiously along the trenches if the weather be dry, for the first good start is most important.

Transplant leeks; dig and manure richly a plot for a row or two, and try with the dung 2 oz. of sulphate of ammonia to the small barrow. Very fine guano to the extent of a pint to the same bulk would confer phosphates of ammonia and of lime, several ammoniacal and nitrogenous compounds, common salt and neutral sulphate to the soils. It is the comprehensiveness of pure guano which stamps its value, and therefore may be always recommended to be mixed with manure as a

restorative to an exhausted soil after raising crops of strong vegetables. In planting leeks, make deep case-like holes and drop them in, applying water in a small stream, so as to fix the roots of each.

Transplant vegetable-marrows and cucumbers, plants already raised in heat. Dig a hole for each in a warm open spot of ground, put in a barrow or more of leafy rich manure and cover it with some rich light soil; water, and cover with hand glasses till growth be established, and then gradually train out the runners, stop the points occasionally to obtain laterals.

Propagate herbs by slips—collect camomile flowers.

The following operations are required at all seasons while crops are growing. Stick peas, top them, also broad and kidney beans; earth up legumens and potatoes. Peas require sticks feathered with branches of a moderate length, with a height of about four feet in a row on each side of the row of peas, and inclined to a top over rising tendrils. Double rows of peas are now abandoned, the thickness of the foliage excluding the necessary current of air. Place fresh soil on the sides of the rows of potatoes without covering the haulm, with the stem upright in a position of growth. Train and peg down the regular advancing shoots of vegetable marrows, gourds, and cucumbers: hoe and move the surface among crops; supply guano-water to cabbage plants, and to all plants generally with broad succulent leaves and juicy stems. Any weak plants are much forwarded by this application.

FRUIT DEPARTMENT.

Attend to the budding of wall fruit—it will succeed if done adroitly. The art is best learned by watching the mode practised by some jobbing gardener or workman, of which some are found in every country place. It is best performed when the bark rises freely, owing to the exudation of proper juice between the new wood and the bark—if the operation be timely and skilfully performed, the fluids attract each other, solidify, and cause an union between the two secreting surfaces.

Remove all wild, ill-placed, and superfluous wood from plum and cherry trees; apple and pear trees may remain untouched till August.

FLOWER GARDEN.

Take up bulbs and dry them, and pipe and layer pinks and carnations. Propagate geraniums by cuttings in

sand or leafy mould: plunging the pots in a gentle hotbed they soon root, and may be transferred to larger pots of a richer soil, as loamy sand and decayed dung of animals. Guano is extolled as a highly valuable stimulant, but may be sparingly applied to flowering plants.

Layer strawberries at the first joints into small pots of free loam—they will root speedily in moist weather, or if watered when dry.

The same remark applies to roses as in the budding of fruit trees. The art is learned by observing that both the stock and the scion be in a moist condition, one in which the bark detaches freely from the wood. Success depends upon attraction between the vital organizable juicy membranes which exudes, or is deposited between the yearling wood and inner bark.

Keep all parterres, flower borders, shrubberies, lawns, and walks in neat order, free from weeds, and duly regulated.

Fruit trees on the standards, singly or in clumps, may be favoured by the land being trenched for some months beforehand, or for a year, as may be recommended. Single trees may have a hole of eight feet in diameter dug and filled at different times with rich earths, short dung and water, and dried into an earthy consistence

before the tree is planted over it. This preparation will stimulate the growth of the plant for some years, even the tree that is inserted in the upper soil by the turf being raised by the spade; but experience has shown that the trenching of lands for general plantations is only useful for a few years, and does not repay the expense, and the small round pits present a firm wall round the sides of it to be penetrated by the roots from the moved earth of digging. But the above recommendation will be useful for fruit trees, and with standards and clumps around the homestead and in the corners of fields.

The collection and preparation of manures must have no intermission—grassy earths, tall weeds chopped into short pieces, scourings of sides of roads and ditches, soaked in the liquid pit with the soapy and urinal washings of the dwelling-house, will be a good manure for all strong growing plants; and the dry compost heap for lighter crops, composed of dry fine earths, road scrapings, droppings of animals, and similar matters, mixed with effete lime. All these ingredients are found at home, and not from any costly importation—the manure enjoys the great recommendation of being cheaply got, with the indissoluble attachment of being essential to the special purpose.

REVIEW OF THE CATTLE TRADE DURING THE PAST MONTH.

The course of the cattle trade during the past month has been free from any important interruption. The supplies of stock forwarded to market have been about an average, but a falling off has been observable in the quality. This has been more particularly noticed in the case of sheep, beasts having as yet deteriorated but little. When we come to consider the severe drought which has prevailed for the last three months, and to the consequent scarcity of food, it is not surprising that the quality of the stock forwarded to market should have undergone a change for the worse. The hay crop, so far as it has as yet been secured, has proved a miserable failure, and some anxiety has been caused by the probable difficulty to be encountered in obtaining food for winter consumption. The aspect of affairs during the past week, however, has somewhat improved. Rain has fallen in many parts, and in some instances freely, and a marked change is already apparent in agricultural prospects. Mangold wurtzels promise well. Under the most favourable circumstances, however, it is tolerably certain that food will be scarce during the winter months, especially in the Southern counties, and that the value of meat will rule higher. In Scotland the drought has been less severely felt, and store cattle have been freely purchased.

At the Metropolitan Market the show of stock has been about an average as regards number; but the condition of the animals has been less satisfactory. The trade has been free from any important feature, and the fluctuations in prices have been trifling, the best Scots and crosses generally commanding 5s. per 8lbs.

The receipts of sheep have been very heavy, large numbers having been thrown on the market in consequence of the severe drought. The demand has been by no means brisk, nevertheless a fair amount of firmness has been apparent, and the quotations have been maintained. The best Downs and half-breds have sold at 5s. 2d. to 5s. 4d. per 8lbs.

Lambs have been dull, and the top price has receded to 6s. 8d. per 8lbs.

Calves have experienced but little inquiry, whilst pigs have been dull and drooping.

The annexed figures show the total supplies of stock exhibited in the Metropolitan Cattle Market during the month:

Beasts	...	...	...	13,558	Head.
Sheep and Lambs	...	...	...	199,139	
Calves	...	...	...	3,757	
Pigs	...	...	...	625	

COMPARISON OF SUPPLIES.

June	Beasts	Sheep and Lambs.	Calves.	Pigs.
1869	20,209	167,770	2,730	980
1868	19,650	177,690	2,875	1,430
1867	16,270	146,650	2,600	2,048
1866	18,320	139,880	1,864	1,732
1865	24,050	163,720	4,278	3,210
1864	25,890	133,450	2,736	3,280

The total imports of foreign stock into London during the past month have been as follows:

	Head.
Beasts	4,794
Sheep and Lambs	25,752
Calves	2,689
Pigs	2,509
Total	33,744

The following table shows the arrivals of stock from our own grazing districts, as well as from Scotland and Ireland, compared with the two previous years:

From—	June, 1868.	June, 1869.	June, 1870.
Norfolk, Suffolk, &c.....	9,000	4,500	6,800
Lincolnshire	370	—	—
Other parts of England.....	1,920	2,420	2,300
Scotland	97	479	850
Ireland	220	161	90

Beasts have sold at from 3s. 2d. to 5s., sheep 3s. to 5s. 4d., lambs 6s. to 6s. 8d., calves 3s. 10d. to 5s. 8d., and pigs 4s. 6d. to 5s. 8d. per 8lbs. to sink the offal.

	June, 1868.			June, 1869.		
	s.	d.	s. d.	s.	d.	s. d.
Beef from	3	0	5 0	3	0	5 10
Mutton	3	0	5 0	3	0	5 10
Lamb	5	6	6 6	5	6	6 0
Veal	3	8	4 2	4	6	5 6
Pork	3	4	4 2	3	8	5 2

Owing to the warm weather which has prevailed, the supplies of meat forwarded to market have been less extensive. The trade has been quite at our quotations: Beef from 3s. 4d. to 5s., mutton 3s. 6d. to 5s., lamb 5s. 8d. to 6s., veal 4s. 6d. to 5s., and pork 4s. to 5s. 8d. per 8lbs., by the carcase.

REVIEW OF THE CORN TRADE DURING THE PAST MONTH.

The character of the month was that of severe drought, though Scotland, as well as the North of England and West, had some quantity of rain, and a few showers were generally distributed, with signs of more coming as the period closed. The temperature has varied from severe cold to tropical heat, the thermometer in the sun having risen to 110 Fahr. on the 22nd, though afterwards the cold partly returned. The consequence of the want of rain has been the almost total loss of the hay crop, many fields not yielding more than one-quarter of a load to the acre, and some not being worth the use of the scythe. The pastures have become dry and brown, though the closing rain somewhat abated their desolate appearance. Store cattle have in some cases been forced out of the graziers' hands upon the market, and this course will have to continue, unless plentiful showers are granted. But should they come and cut may partly make up for the present deficiency, which has brought the price of hay to extravagant rates. All spring-corn too, more or less, has suffered, and prices have been rising at a fearful rate—say, 3s. to 5s. per qr., this only being stopped by the more recent showers. But we have not been left to the course of our own humid climate, which seldom suffers as at present. Our neighbours—the French—having much more felt the drought, have not failed to avail themselves of our more abundant stores and plentiful arrivals, and perhaps half or more of the advance may be traced to this cause. But not only has spring-corn experienced an unusual excitement, but it has reached to wheat to the extent of about 6s. per qr.; though for the last ten days the trade evinced signs of reaction—say, of 1s. or 2s. per qr., leaving the month's gain about 4s. to 5s. per qr. There appears, however, nothing in the prospect of the wheat crop in this country to justify any apprehension. The light gravelly soils have certainly gone off under the scorching heat of the sun and the drying atmosphere; but the well-farmed loams give promise of even more than an average yield, while the high temperature has been forcing them on at an unusual rate, partly compensating for the previous backwardness of the season. Lately rain has partially fallen in France and other parts of Europe, though not abundantly, and the French demand has subsided, with falling markets there—say, at Paris of 3s. to 4s. per qr. in a week, and in some parts of the country the decline has been still greater. Our anticipations of improved rates have therefore all been fulfilled; but we think the time has come to return to a quiet trade at about, or something below, present rates. Still there need be no fear of our returning to those startling prices which were current at the commencement of March, when the general averages were only 40s. 8d. per qr., from whence we have already reached a gain of 7s. 4d. Though the rye is not well spoken of in Europe, and the wheat has partially suffered, Hungary promises a full average, also great part of Russia, California, and the whole of North America, and there is no fear that a French competition will greatly raise our prices, for the harvest in the South has already begun. The following were the recent prices of wheat at the several places named: White wheat at Paris 65s., red 61s. 6d.; white at Bordeaux 58s. 6d.; Baltic and native red in Belgium 54s. to 59s.; Zealand white at Rotterdam 53s., Mecklenburg and Saale at Hambro' 52s., red at Cologne 52s.,

at Manheim 58s. 6d., the best heavy at Pesth 47s. 6d., high-mixed new at Danzie 59s. c. f. and i., old ditto 62s., red at Romanshorn 59s., hard at Algiers 43s. No. 2, Spring at New York 48s. 6d. per 480lbs., c. f. and i.

As the requirements of the Press compelled us to close our last month's review on the 23rd May, so the present commences with the 30th May. Monday's market then opened on very small English supplies of wheat, with fair arrivals of foreign. The show of samples on the Essex and Kentish stands was the shortest of the season. English factors held for an advance of 1s. to 2s.; but the weather changing from ungenial to warm, with a south-west wind, but little was done at more than 1s. improvement. Foreign generally has held for the same advance, and America freely brought 2s. per qr. beyond the previous Monday's rates. Floating cargoes were 1s. per qr. higher, with very few for sale. The dry weather and a foreign demand made a much more cheerful trade in the country, and the smallest advance there was 1s. per qr. at many places, as Sleaford, Spalding, Lynn, Louth, Leeds, Hull, Sheffield, Birmingham, Newark, Market Rasen, Manchester, and Rotherham; while at Boston the improvement was 2s. to 3s. per qr. Liverpool only gained 2d. per cental for the week, or 10d. per qr. The principal Scotch markets were 1s. per qr. dearer, as Edinburgh, Leith, and Glasgow. At Dublin, both Irish and foreign wheat were up 6d. per brl.

On the second Monday there was another scanty English supply, but the foreign arrivals, though less than the week previous, were fair. An important demand for France had the effect to raise prices 2s. to 3s. per qr., but the continuous steady rise made our own millers cautious. Large sales of foreign, not only for France but the Rhine, caused an advance of 2s. on the lower descriptions of Russian, and American sorts were 3s. per qr. dearer. Cargoes afloat continued to rise. The suddenness and importance of the foreign demand produced great excitement in some parts of the country, some farmers thinking it best to withdraw their samples altogether, but others were willing to sell at 3s. to 4s. per qr. more, but the average price may be taken at about 2s. per qr., some places being content to accept 1s. more than on the previous week. Liverpool gained 6d. per cental or 2s. 6d. per qr. Leith and Edinburgh were both up 2s., and Glasgow 1s. to 2s. per qr. The rise at Dublin was moderate, say 6d. to 1s. per barrel both on native wheat and foreign.

The third Monday's returns only exhibited scanty English supplies, with less from abroad. French buyers again appearing on the market, the short arrivals on the Kentish and Essex stands again prompted an advance, and extravagant rates were first asked, but eventually an improvement of 2s. per qr. was accepted. Foreign being in request for export a like advance was readily obtained on Russian and American samples. Though rain fell this week rather plentifully in the north and partially in other places, there was very little abatement of the previous excitement, many farmers being so extravagant in their claims that their ordinary buyers were glad to become London purchasers, when on Friday, after the showers, holders evinced more disposition to sell. The advices, as might be expected at such a time, were very unequal, but the average gain may be fairly taken at fully 2s. per qr. In Scotland, where more rain had fallen, there were

more moderate views, but Leith was 2s. per qr. dearer, and Glasgow 1s. to 2s. The Dublin advices were without excitement, yet fair Irish as well as foreign samples were 6d. to 1s. per barrel dearer.

On the fourth Monday the English returns showed a moderate increase, and the foreign were also improved in consequence of fair arrivals from Montreal and New York. There were very few fresh arrivals on the Essex and Kentish stands, and factors generally demanded 1s. per qr. more, but with some rain fallen in different localities, and less activity in the French inquiry, it was found home millers would not exceed the previous Monday's rates, at which sales were made. Holders of foreign also found the same state of trade, and though at first they declined the previous Monday's rates they could not afterwards exceed them. Of arrived floating cargoes there were none. The dull accounts from London were not without their influence in the country, most markets were the turu casier, and several were down 1s. to 2s., as Louth, Birmingham, Bury St. Edmunds, &c.; and on Friday London was 1s. cheaper to sell.

The arrivals in four weeks for London have been 14,753 qrs. English wheat, 74,816 qrs. foreign, against 24,482 qrs. English, 65,572 qrs. foreign in 1869. The London exports in the same time have been 5,475 qrs. wheat, 2,186 cwt. flour. The imports into the kingdom for five weeks ending 18 June were 2,774,367 cwt. wheat, 536,206 cwt. flour, against 1,242,537 cwt. wheat, 136,956 cwt. flour for the same time last year. The general averages commenced at 45s. 3d. and closed at 48s.; those of London commenced at 47s. 6d. and closed at 52s. 6d. It must be remembered that the general averages only show the state of business about three weeks previously, and therefore they may be higher still though the market has now calmed down.

The flour trade as usual has been influenced by the course of wheat prices, but scarcely to the same extent, the foreign demand being almost exclusively for the latter. Norfolks have, however, improved fully 2s., the lower sorts being worth 35s., and others of a higher description in proportion, while on the 13th June town millers raised the top price to 47s., quotations at Paris for fine having risen to 48s. Foreign sorts, in sacks, have been held at 2s. per sack advance, and barrels have risen 1s. to 1s. 6d., anything extra being worth 26s. per barrel, and the offers of extra state from New York were by telegram 25s. 2d. e. f. i. The imports into London for four weeks were 80,069 sacks country, 4,473 sacks 43,925 barrels foreign, against 95,744 sacks country, 10,288 sacks 14,382 barrels foreign in 1869.

Maize, on moderate arrivals, has participated in the general advance, say to the extent of 2s. for four weeks, yellow fine being worth 33s., and the best white 34s.; and if the late rise in barley should be maintained it is likely to go dearer, though much from the Mediterranean and East has been bought for forward shipment. The imports into London for four weeks were 28,147 qrs., against 30,830 qrs. in 1869.

The arrivals of English barley have dwindled down to insignificance, and the foreign supplies for the entire month have been less than they sometimes are for a week. This being the case, with short stocks and the drought threatening to make a light crop, prices have gained 2s. to 3s. per qr., the better qualities of foreign being scarcest have risen most. In the country this grain seems to be nearly exhausted, and the lower descriptions have been wanted for feeding stock, in consequence of the failure of grass which has been very serious. There is therefore no likelihood of much abatement in prices, unless we get very plentiful and timely rains. Grinding sorts have now become worth 26s. to 30s., and foreign

malting 10s., English being in too limited supplies for quotations. The imports into London for four weeks have been 1,634 qrs. British, 25,510 qrs. foreign, against 1,016 qrs. British, 3,732 qrs. foreign in 1869.

The malt trade with little doing has hardened in value, say 1s. to 2s. per qr.

Oats have experienced a rise not known for many years in the same space of time. The want of rain has told most unfavourably on the prospects of the crop in England, and still more so in France, though lately we had samples from that country on sale in the London markets. Large purchases have now been made on French account, and though the arrivals have been unusually heavy, they failed to check the upward movement which only ceased on the fall of rain. The advance under these circumstances has been no less than 1s. to 5s. per qr. in four weeks, but on the last market there came a calm, though without any diminution in prices. Rigas, weighing 40lbs. per bushel, have become worth 25s.; Swedish corn of fine quality about 27s.; and Scotch potato, from extreme scarcity, are worth 31s. or more. The imports into London for four weeks were 3,910 qrs. English, 251,398 qrs. foreign, and it is to be noted that not a single shipment from Scotland or Ireland is included in the returns. The imports for the same time last year were 1,556 qrs. English, 1,264 qrs. Scotch, 3,300 Irish, 93,849 qrs. foreign.

The scanty supplies of English beans, and want of fodder in the country not being made up by liberal foreign arrivals, this grain has advanced likewise in value fully 4s. per qr. The news having reached Egypt there is a corresponding advance there, though previously they could have been had at 34s. f. o. b. Alexandrian qualities are now worth 42s.; ticks and Mazagaus 44s. Now hay and oats have so advanced, there seems little chance of much decline in this grain before harvest, and without abundant rains the prospects for this period are poor. The imports into London for four weeks were 1,214 qrs. English, 3,208 qrs. foreign, against 2,118 qrs. English, 68 qrs. foreign in 1869.

Peas have been coupled with beans in the fore-mentioned advance, the native supplies being quite trifling, though the foreign arrivals have lately improved from the advance in the market. The description imported has consisted almost exclusively of inferior white sorts used for horse-feed as a substitute for beans, and then lately worth only 33s. are now held at 39s.; fine boilers are not in demand at this time of year, and hog peas of English growth are too scarce to quote reliably. The imports into London for four weeks were 373 qrs. English, 11,515 qrs. foreign, against 157 qrs. English, 1,855 qrs. foreign in 1869.

The import of linseed has been remarkably small, viz., only 3,367 qrs. for four weeks, and prices have, therefore, advanced on the previously high terms 1s. to 2s., and cakes, from the drought, and have increased in value 5s. to 7s. 6d. per ton.

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May 14, 1870.....	44	5	33	9	23	1
May 21, 1870.....	45	3	32	5	22	0
May 28, 1870.....	45	4	32	11	23	10
June 4, 1870.....	45	3	32	0	23	0
June 11, 1870.....	46	1	33	1	22	0
June 18, 1870.....	48	0	32	5	25	0
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AUGUST, 1870.

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Rearing



In Sweden - 1841.

THE FARMER'S MAGAZINE.

AUGUST, 1870.

PLATE I. IN EUSTON PARK.

The lawns were dry in Euston Park ;
Here truth inspires my tale.

At any rate they must have been dry enough until very lately, and the hundred or so of polled Scots have found it hard work to get a living even over so extensive a range.

We are not quite so sure but that Polls, Devons, or more especially West Highland oxen, are a greater ornament to a nobleman's park than even the deer. Or, anyhow, they may go very well together, and share and share alike.

PLATE II.

KINGCRAFT; A THOROUGHBRED COLT.

THE PROPERTY OF LORD FALMOUTH.

Kingcraft, bred by Lord Falmouth in 1867, is by King Tom, out of Woodcraft by Voltigeur, her dam by Venison, out of Wedding Day by Camel—Margellina by Whisker.

King Tom, bred by Mr. Thellusson in 1851, is by Harkaway, out of Pocahontas by Glencoe. King Tom was a superior race-horse, and when quite off ran a good second to Andover for the Derby. His stock came out as two-year-olds in 1859, and he is the sire, amongst other winners, of King of Diamonds, Maiustone, Irene, Prince Plausible, Queen of the Vale, Tomyris, Janus, Old Calabar, Queen of Spain, Wingrave, Kean, Otho, Tom Fool, Crafton Lass, Evelina, Hippolyta, King of the Vale, Mogadore, Tomato, Breeze, King Charming, Warrior, Guinivève, Janitor, King Hal, Dalesman, Kingsley, Rhymer, Tourmalin, Warrior, Tormentor, Hippia, Contempt, Gaiety, Jasper, Osprey, King Alfred, Kingsley, Nyanza, Restitution, War Queen, Mahonia, and Kingcraft. Up to the close of last season, King Tom was the sire of more than a hundred winners, and his stock now includes one winner of the Derby in Kingcraft, and two winners of the Oaks in Tormentor and Hippia, while the best show stallion of his time is indisputably Dalesman. King Tom is of course still at Mentmore, where they will get fonder of him than ever.

Woodcraft, although bred by Mr. George Bryan at Jenkinstown in Ireland in 1861, has a good old West
OLD SERIES.]

Country pedigree—the dash of Venison, Wedding Day, and Margellina, by Whisker, with which Mr. Wreford was to be identified; and it somewhat noticeable that the Irish lass should have now settled down close to the home of her ancestors. But Woodcraft was no runner, as her two-year-old performances were not above plating form, and she was sold during the following season to Lord Falmouth for 200 gs., and at once sent to the stud. Her produce, so far, runs thus: In 1866, a nameless and worthless colt by Newminster; in 1867, Kingcraft, by King Tom; in 1868, a filly by Dundee; in 1869, a filly by Saunterer; and in 1870, a colt by Blair Athol. After the taste with Kingcraft, the mare has of course been put again this season to King Tom.

Kingcraft is a good-coloured bay horse, standing as close as can be upon sixteen hands high. He has an expressive, very bloodlike head; a strong neck, with powerful shoulders, standing with his forelegs rather under him. He is good in his girth, has great depth in his fore-ribs, is clean but somewhat light in his bone, and a trifle high from the hock to the ground. He has, however, beautifully shaped feet and fetlocks; and, if conveying something of delicacy in his general character, was a long way the most stylish-looking horse in the Derby. His preparation was perfect; clear in his coat, bright in his eye, and almost, as it would seem, flattered

in his work. He was indeed no doubt bigger when he stripped for the Derby than when he ran for the Two Thousand Guineas.

Kingcraft has started twelve times, won seven, divided once, ran second once, and third three times.

During the twelve or thirteen years Lord Falmouth has been on the Turf, he has enjoyed a degree of success which he has justly merited, for he is the very model of a sportsman in these days when money and the market have so great an influence on the doings of Lords and

Commoners. He breeds his own horses, he never bets and he acts on his own opinion in mating his mares and in engaging and running his horses. His Lordship has now won both the great races at Epsom, Kingcraft's victory having been preceded by that of Queen Bertha for the Oaks in 1863, while Lord Falmouth also bred Gamos, the winner of this year's Oaks. As an agriculturist, Lord Falmouth is famous for his Devons and Shropshires, which are as successful on the showground as his horses are on a course.

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

MEETING AT OXFORD.

The Ransomes, the Garretts, and the Howards were then to be found, as they still continue, amongst the leading exhibitors of implements, when the first meeting of the Royal Agricultural Society was held in Oxford thirty-one years since. But, on the other hand, there is not one noted breeder of stock who countenanced the opening experiment again to be traced in the catalogue. It is indeed doubtful whether either through themselves or their successors any of the great herd or flock masters of those days are here to be identified. The Bates Duchesses, like "the Tenth," don't dance, at any rate not in public; Stephen Grantham is almost forgotten on the Southdowns; and Samuel Bennett and his people have passed away from the Woburn records. There are but few, as the Duke of Devonshire said at the general meeting on the Tuesday, who have now any cognizance of the Oxford Show of 1839. *Sed mihi contingit adire Corinthum*; we were amongst those few who had been to that other Oxford meeting, although possibly we then scarcely regarded a pedigree animal or worshipful judge with all the reverence we have of course since come to feel.

But there are judges *and* judges, as there are breeds *and* breeds by this time. There is stock now which can fill class after class at a national meeting, and command customers from all parts of the world, that in 1839 had little or no repute whatever out of its own immediate district. Your Shropshires, your Lincolns, and your Dorsets had hardly been heard of, and your very Oxfords never even invented. The black polls might have a name in Aberdeen as the red polls in Norfolk, while the Sussex beasts were slowly toiling towards the head-land, and the Longhorn disputed the supremacy of the Durham ox. But times have changed, and we had almost said breeds too. The brindled bull is by this well content to take a prize from the lucky-bag of the other breeds, and the Shorthorn rings are crowded three or four deep from the very moment the judges go to work. There are said to be some famous Herefords which nobody goes to see; the smaller show of Devons is, if possible, held in still less regard, and the very horses do not draw as might have been expected. There are certainly some connoisseurs in Southdown mutton to be seen about; as the over-anxious locals look to the fortunes of their beloved Oxfords, and the Shropshire men wear gamely through the four hours or so that their chosen authorities require to settle a single class. But if you wish to find a man, a monied man more especially, you must seek him amongst the Shorthorns, where our distinguished visitors are ready to pay us the most stirring of com-

pliments, and to give forthwith fifteen hundred for a heifer or two thousand for a cow, Booth or Bates, whichever you please. Mr. Cochrane, from Montreal, has just purchased two heifers, Duchess 101st and Duchess 103rd for 2,500 gs. the pair; whilst he has also taken Lady Grateful, an own sister to Lady Fragrant, of Mr. Booth, for 1,500 gs.; and when we left Oxford on Wednesday, negotiations were pending, at the corner of what was known as "the refreshment Booth," for the purchase of Lady Fragrant herself. 2,000 gs. had been refused, and Lord Kesteven was engaged in the nice duty of bringing the contracting parties together; as in fact, it was whispered that, at a meeting on the previous evening, a resolution had been put and carried, the purport of which was that henceforth no Duchess would be sold at any less price than two thousand. In the face of all this Patricia, one of the plums shipped, at 1,000 gs., died within a day's sail of New York; but although the intelligence only reached Oxford during the progress of the meeting, the effect was the very reverse of what might have been expected. Everybody was anxious to buy something to go abroad, and as the Hereford breeders were quite content to ask tens where the Shorthorn chiefs refused hundreds, business again was brisk, as our story of the week will presently show.

Otherwise, beyond the zest imparted by the extraordinary value of certain strains which were not represented here, the show of Shorthorns was by no means above an average; its merit, in truth mainly depending upon the entries of certain well-known animals, which either did or should have placed themselves, set off as these were by as ragged a rank and file as has been paraded for many a day. There were good judges at Manchester who fancied that Bolivar was then training off, although we could not share in such opinion, and his appearance at Oxford did anything but confirm any such unfavourable impression. He has thickened and furnished without growing either paunchy or patchy; his very coat has lost something of its rusty hue, and he is at all points for style and quality, with show condition not over-done, as handsome and as taking a bull as has been out for many a long day. Edgar, the second prize bull here and also second in the same class at Manchester, has also gone on well in the interim, being a true, deep, square bull, lacking something of the fashion of Bolivar, but fairly earning his place. The lengthy useful Baron Killerby has always been a favourite of ours, whether the judges looked at him or not, as too frequently they refused to do from his smutty nose, or he must often have had as good a place as he took here. At

Manchester and at Beverley last year the judges refused to pass Baron Killerby for this reason, and the line certainly looks to be rather loosely drawn, when a beast can be qualified and disqualified on a point that is after all a simple matter of fact. The famous Irish bull, Sovereign, made nothing like the impression expected, and it was by no means so clear that he would even get as near as he did. He was not very blooming, as at the best would have nothing very imposing in his appearance, while he begins badly with a mean, delicate head. The judges refused the neat Hogarth any notice, although he was kept in amongst the last half-dozen or so, while they highly commended the very showy Shuttlecock of Mr. Fawkes' breeding, but Fra Diavolo from the same herd has trained terribly off, and with no longer any pretensions in public. The eight or nine more included Royal Butterfly 20th, and Mandarin the first and second in the old bull class at Taunton, but beyond a mere commendation to the Butterfly neither made much mark here, as the white, from a mishap, is fast losing all his early promise. The best of a very moderate lot of two-year-olds, the Scotch Scotsman, a very successful animal in his own country, has been sold for 150 gs. to go away, and a well-grown, lengthy bull he is; whereas the Towneley Hubback, merely commended as a yearling at Manchester was not only plain but lame, and on very little showing worthy of being put so forward. The white Cumberland placed next has more appearance, and is altogether a smart young bull in, as we have said, a very ordinary class. Amongst the yearlings there were some better beasts, and here one of the sensations of the day occurred. At the recent meeting of the Essex Society at Saffron Walden we spoke to the great merit of a yearling exhibited by Lord Braybrooke; while at the dinner Mr. Thurnall said for the judges Heydon Duke was "the best he had ever seen, and he hoped he would be sent to Oxford, as it was well deserving of Royal honours." And he was sent to Oxford, where outside the ring everybody pronounced Heydon Duke to be manifestly the best of a very good class. Immense accordingly was the surprise when the Duke was only placed third to Lady Pigot's Bythis; whereas in Essex Heydon Duke beat Bythis. The judges at Saffron Walden were Messrs. Bowley, Lynn, and Savage, against Messrs. Aylmer, Bowstead, and Singleton at Oxford. It is as well to give these particulars, because some acknowledged good men declared that after such a decision there must be an end to all judging by rule or point. Heydon is, in fact, a very taking animal; a good roan in colour, of beautiful quality, with a deep frame, a good head, and very broad and grand to meet. He has, however, a somewhat drooping carriage, going with his head down; whereas Bythis, by the aid of long Ward, shows himself famously, and he certainly never looked better than he did at Oxford. With such well laid shoulders, by far his best point, he is bound to walk; but beyond his action and quality there is not much to be said in his favour, for he begins and ends badly, being especially faulty about his quarters. Still it is only fair to say that, with the exception of Saffron Walden, Bythis has taken the first prize on every occasion of his being shown during the present year: at Taunton, where, as we said, there was a very poor class against him; at Harleston, where, beyond Lord Walsingham's big yearling, there was nothing of "much account"; and at Royston, where he was not only the best of his class but the best bull in the show, beating Baron Killerby, Charles-le-Beau, and others. The white Yorkshire bull, Lord Irwin, was much liked, and had the prizes of Bythis and Heydon Duke been transposed there would have been little to complain of: but returned as they were on the list, we are bound to say that we never heard a more general or a stronger

expression of opinion against an award. Another Irish prize bull and a son of Sovereign, Mr. Chaloner's Sir Leopold, looked to be a very ordinary beast, but he made 250 gs. to go to New Zealand. The bull-calves ran up to a very pretty class, Mr. Dudding's best being particularly promising lengthy and stylish, as well backed by one from Burderop for second; while Messrs. Hoskyn gave a couple of hundred for the merely commended Towneley Oxford, a far higher reserve being of course put upon the reserve number, Maid of Oxford's Baronet, about as awkward a title as ever was heard of, as in the next generation it should run to Maid of Oxford's Baronet's son and heir. The class was very liberally and very deservedly distinguished by commendations; and with the sample they have, the Messrs. Hoskyn may make more mark the next time they come clean out of the West. Curiously enough, through an oversight, they were too late this year in sending their entries for both the West of England and the All-England meetings, although their stock did so well at the Cornwall show.

If one might attempt to read the human countenance as any reflex of a man's opinions, we should question very much whether any of the decisions in the Shorthorn cow and heifer classes were unanimously arrived at, as undoubtedly some of these gave as little general satisfaction as they could have done to the out-voted judge. Those famous prize animals Queene of Rosalea and Lady Anne were never, perhaps, seen to so much advantage as at Oxford. They had got rid of some of the lumpy coarseness they both threatened to feed into, and the Queene, more particularly, came out a fine, lengthy, blood-like cow. Nevertheless she was again placed no higher than second, although there was now no Lady Fragrant to eclipse the class. The best of all turned up in a red and white heifer, exhibited by Mr. George Garne, whose luck this season has been something extraordinary, while it will serve as a capital advertisement to the Churchill Heath sale that is talked of. Lady Lavinia is a deep, plain, short, stumpy beast, of little or no style in the ring, however good in her touch, and the chief points in her favour looked to be that she is but little over three years old and that she was led in by the Towneley herdsman, who might measure for inches against John Ward himself. For our own part we should have infinitely preferred Mr. Garne's best cow at Taunton, the more lady-like Pride of the Heath, whose second in the West, although unnoticed here, was sold forthwith by Mr. Stratton to go to Sydney. There were two or three more nice cows in this class, whilst in the baker's dozen or so of two-year-olds, there was another surprise, and fortune still smiling on the home bred stock. With Colonel Towneley, Lady Pigott, Mr. Stratton, Mr. Howe, the Gurnes and Mr. Eastwood exhibiting, the best of all was ultimately declared to be Mr. Mumford's Camilla, a heifer which at the county show in Oxford last summer took merely a commendation, as she did no more at Northampton, although later in the year she won prizes at such minor meetings as Aylesbury and Tring. She is already growing very unsightly behind, is short of coat, harsh and common, as the decision in her favour was altogether about the greatest fluke of the day, for we most assuredly never expect to see Camilla do so well again in anything like the same class of company. But it was a great victory, however arrived at, with a red Butterfly for second, and Mr. Stratton's big and good Peeress, the best of her class at Taunton as third; with such successful animals as La Belle Helene and Windsor's Butterfly coming in for some commendation.

Putting the sheep show out of the argument no doubt the best filled class in the catalogue was that which ran up to some thirty odd entries of yearling Shorthorn heifers, at whose disposal, the steward, Mr. Jacob Wil-

son, very judiciously put the two companion rings; and as they paraded this was certainly a sight to see. Still, from the first it was very apparent what must or should win, and we have only to hope that the award here was at any rate, so far as the best went, a unanimous conclusion. In our notice of the Essex meeting we spoke to Heydon Duke and Mr. MacIntosh's "two real gems of heifers as the cracks of the yard;" and there can be little question but that Lady Knightley 2nd was the best of all the Shorthorn cows or heifers at Oxford. She is so thoroughly fashionable, so grand perhaps rather than merely handsome in her appearance, with a rich roan coat, the very finest quality of flesh, and but for a certain narrowness in her quarters, and lightness of thigh, as true in her symmetry. Still, The Knightley won easily enough in a good class, and was sold, as it seemed to be by comparison a bargain, for 500 gs. for Australia. Not but there was something to beat. Mr. Dudding's second for instance, The Countess of Yarborough, is a wonderfully good square heifer, that looks like growing into something still better, although she has made her mark already at Northampton, Lincoln, and Beverley last year; and she goes to America at precisely the same figure as The Knightley, 500 gs. So that, with the market it making it so near a thing, the judges might have divided here also. Mr. Howe's third, Vesper Queen, has also deservedly some repute, and of Mr. Stratton's pair we thus wrote when we saw them a few weeks since in the West: "There is a vast improvement observable in the best Royal calf, Flower Girl, who has dropped to her leg, and is now growing into a really stylish charming heifer, so that the Manchester award would seem to be gathering confirmation. Not that the judges here by any means held to it, for they placed Gertrude, from the same herd, and a merely commended calf at Manchester, first, while, as second to her, they put Flower Girl the best of all at Manchester. Gertrude is some months older than the other, as she is level enough, but short and vulgar forward, and so far as the two be concerned, there can be little question but that the Royal reading was the better one." And the Royal reading was again the better, as Flower Girl was now put above the other, being the reserve number and highly, while Gertrude was never noticed, although Mr. Stratton sold her for 200 gs. to accompany Coriander to Sydney. Amongst the others a very pretty but very juvenile heifer from Mr. Fawcett's herd was deservedly commended, as with more age she might have reached to a higher rank. But the class, we repeat was a strong one, and it was something to get even a *benè* mark. The Towneley calf, full of Butterfly blood, had clearly the most promise of anything in the lot, and, in fact, the lady-judges looked to pull more together as they went on, as the yearlings and calves were declared to be as properly placed as the first cow and first two-year-old were out of all due order of precedence. Mr. Marsh's second-prize calf is, indeed, especially handsome, and Mr. Culshaw and his long friend seemed to be a deal more at ease when it was quite settled.

It was clear enough at Taunton that the white-faces were coming again in great force, and we rarely remember to have seen, at all points, a better show of Hereford cattle than that at Oxford in 1870. Three finer bulls for one, two, three, were surely never got together than those which finished in this way in the old class. The best of all, Stanway, has never been much of a show bull, although now close upon six years old, as this very fact may possibly account for his wearing so well. He won at Ludlow in the autumn of 1869, and again at Hereford, where we first saw him, and thus spoke of him: "Stanway is not a big one, or, more properly perhaps, not a high up-standing one, for he is very true and thick all

through, compactly furnished, without being cloddy, as he is stylish in his appearance, with a capital coat and a firm touch." At the first of those so-called "periodical sales" at Hereford, immediately following the show, Stanway reached the top figure of the day, 190 gs., at which price he was booked to a Mr. Child; but we took the liberty of doubting the genuine character of the transaction, as it now appears the bull was bought in, and since sold to Sir Joseph Bailey, whose people have brought him out as blooming as ever. Prince Leopold has also considerably improved, and it is difficult to understand how he could ever have been placed second to such an animal as Stow; while we testified to the great merit of the Welsh bull, Sir John the Third, when he won at Taunton, as full of style and quality, with by good size and a great back, a very orthodox coat, the activity of a kitten, and the courage of a bulldog. The weather, or the heat, however, would seem to have told on Sir John, as he was by no means so lively out as on his first appearance. With Stow as the reserve number, there was nothing else very particular in the class of old bulls, where the award, however correct, looks to read a little awkward in one way. Stanway is entered as 4 years 9 months 2 weeks and 6 days old, whereas by the *Hereford Herd Book* he was calved on September 11th, 1864, so that he is just a year older than stated. On the turf a horse whose age is wrongly given would be at once disqualified, and if Stanway's age were also wrongly given in the judges' books, some inquiry must be instituted, or we shall soon drift into a false state of things; for if Herd Books, either public or private, be of any use, nothing is of more importance than that certainty of information in this way should be insisted on. Prince Albert Edward, a very smart, stylish two-year-old, particularly good to meet, was a long way the best of his class, which was otherwise but moderate, although Mr. Baldwin got out of the merely commended Lord Ashford at 90 gs., with Australia as his destiny. Trojan, the best yearling, and always a fancy of ours, made no more than this figure, for the same country, although a very showy bull out, if not so good to the hand or square in his quarters, but still, with Mr. Evans out of the way, clearly the best of his year. Then Mr. Tudge will ship off from this meeting the prize heifers, Silver Star, Sultana, and Lady Bradon, at an average of about 100 gs. each. It will be seen that my Lady was just beaten again here, but by a heifer of Mr. Fenn's, which, although entered, was not sent to Taunton; while Sunbeam, the first at Taunton, was here only third. But it was a very excellent class, with so many superior heifers in it, that putting them about a little was scarcely to be wondered at, and the judges deservedly commended the whole entry, thus confirming what we said of many of the same animals when we saw them a few weeks since in the West—"the capital show of yearling heifers was about the best lot of Herefords we have seen got together in one class for many a day. And these were probably too much for the judges, for smart, blood-like, and wealthy as is Mr. Thomas's Sunbeam, there were many would have it Mr. Allen's second from Mr. Rogers, of the Grove, was a better, or Mr. Tudge's highly-commended Lady Brandon better than either of those placed before her." Mr. Allen's heifer was too old for the class at Oxford, and the others changed about as we have noticed. The winner, Leonora 2nd, was exhibited in pairs with Mr. Fenn's other show heifer, Duchess of Bedford 6th, at Hereford last autumn, and placed second to a brace from Bicton, when we thus protested against the award: "With the pairs of yearling heifers it was a very close thing between the first and second, and for choice we should take Mr. Fenn's two as promising to grow into most money. They are more roomy, and have quite as much fashion as the Bicton couple, and

the second was no doubt a mistake." As two-year-olds Silver Star and Livia were again first and second, but again with no competition; and Silver Star, who has lost much of her early form, is well quit of at anything like a price. It is a question, indeed, if the best of all the heifers were not Mr. Evans' calf, which wins decidedly enough in a nevertheless admirable baby show: she is so straight, so clean, and so handsome, without being overdone with mother's milk, and needs only *not* to be spoiled to eclipse even the fame of the Prince of Wales, from the same small but rapidly advancing herd. Mr. Thomas had also another place on the prize list with another daughter of Sir John, and Mr. Arkwright a nice stylish heifer that we should have been inclined to make "next best." But there were younger Hereford calves even than these on view, and the best cow, Mr. Rogers' Silk, went into the ring with one at her side only one hour or so old, for this was dropped just as the business of the day began. It would have been hard, indeed, under such circumstances, if the old lady had not won, what with her fine character and splendid forehead, if she be growing a little gaudy behind; but then she is close upon eight years old, and with the best possible proof of being still in breeding condition. The class was altogether a good one, and Lizzie, another dowager who did so well at Taunton, could now get no higher than a commendation. Another good sign is the fact of there being so many fresh faces in the entry, and with a passing word for Mr. Taylor's straight, happily-named Oxford Lad, we may record the Herefords as fast regaining their proper position as show stock. Some further proof might be offered in the readiness with which the whitefaces were selling. Thus beyond the purchases we have mentioned, Mr. Fenn's first prize yearling made 80 gs., as did Mr. Thomas' third prize; while Messrs. Hill and Fenn's bull calves went at 60 gs. each.

The Devons, with certain exceptions here and there are in small force this year, despite the very liberal commendations with which the judges illustrated their awards. They commended whole classes, although some of these were very moderately filled up. Of the two classes of older bulls Lord Falmouth's is the only animal of really fine Devon character; and in the two younger classes Mr. James Davy's entries are a long way the best on the same showing. Then the Flitton yearling heifer Tempress 2nd was, as at Taunton, the pick and pride of all the Devons, and no doubt one of the very best of all the animals of any sort shown at Oxford; but the competition was not extraordinary, and so the judges commended the class. Old Actress was not sent, and Mr. Smith, of Exeter, accordingly succeeded to the first place; but not without a bit of a bother over it. Musk, it seems, was entered at Taunton as bred by Mr. Shapland, and at Oxford as bred by Mr. Smith, and naturally an objection was lodged. On investigation, it appears that Mr. Smith had written his own name on the wrong line in the entry paper, and the award was not over-ruled, although people in this respect cannot be too particular. There were some very creditable cows at the back of Musk; but nothing so remarkable as the prize list and its elaboration would imply; while the heifers in milk with Pretty Maid, as the best of them were "ordinary enough after what I have been accustomed to," as the gentleman said of his second wife. It was much the same at Manchester; and, notwithstanding his prime roasting pieces and repute with the west-end butcher, the Devon, as farmers' stock, looks to be losing ground. We are aware that we speak under correction in saying so much, for no less an authority than *The Times* declares "that the Devon cattle were never better than at the present show." But, then, *The Times* has clearly peculiar sources of information, for beyond intimating that Mr. Walter Far-

thing should have taken all the first prizes, our contemporary points the argument in this way: "Lord Falmouth's first prize two-year-old bull, Napier, bred by Mr. Walter Farthing, and Mr. Walter Farthing's second prize bull, Sir George, are specially grand animals." This reads prettily enough, "especially" for Mr. Walter Farthing; but it will scarcely be credited that in a report published so long after the opening of the meeting as Friday the writer cannot actually follow the prize list. Lord Falmouth's bull was certainly first, as he is one of the best bulls of his time, but his name is *not* Napier, and he was bred by Lord Falmouth, and *not* by Mr. Walter Farthing, whose "specially grand animal" is, for true Devon character, not to be named in the same street with the other, as, in fact, he could not even get second to Narcissus in Cornwall. No wonder that *The Times* finds the Royal meeting to be growing too big, after such a specimen of dealing with it as this!

The Norfolk and Suffolk polls reached to some twenty odd animals in three classes; but, the show if small was good; while some previous decisions were occasionally upset. Thus, Mr. Benjamin Brown's Norfolk Duke, a bull uniting size with quality, beat as it seemed to us very deservedly, Mr. Colman's Cherry Duke, that at the Norfolk and Suffolk shows, had all the best of it. Amongst the cows again, Mr. B. Brown's "beautiful" Duchess, which was thought so much of at Sudbury, succumbed to Sprightly; although, on their previously meeting, it had been all the other way. The best of all the polls, however, at Harleston, Mr. Hammond's cow, Butler, was a long way the best of all here, and Buttercup, the best heifer, is a daughter of Butler, so that it all proved well enough; and the red polls made up an exhibition quite encouraging enough for the breeders to go on, especially in these times when so much attention is being paid to the production of milk.

In fact, whether we touch on the seaboard or not, a very growing feature in the proceedings of the national Society is the section devoted to a display of Channel Island milkers. These animals may be classified as of three kinds—stock bred in Jersey, stock bred in Guernsey, and Jerseys bred in England. Of these varieties the Jersey natives have no question the call, as the Guerneys are coarser and plainer, and Jerseys bred in England are apt to lose much of their fine purity of character. We were especially struck with this at Mr. Dauncey's sale, where his large whole-coloured cows looked to have gradually got far away from the original type of Jersey cow, as it is noticeable, notwithstanding the prices they made, that the Horwood stock has since been continually beaten on the show-ground. In fact, they did more at Oxford than they have ever done elsewhere. Thus the first prize Channel cow was Mr. Pulley's Vixen, a fawn bred by Mr. Dauncey, and purchased at his sale for 80 gs., and she well deserved her place, for she shows more refinement of breeding, and has less reason to depend upon mere size than the generality of "Buckinghamshire Alderneys." The second prize cow, a native Jersey, presents at something the same age—seven years or so—a very different appearance, being all hips, bones, and bag. But Floribrindus has been a very famous cow in her own country, where, as a prize winner, she has reached the highest price ever given on the Island for a milking cow—viz., 80 gs., precisely the sum paid by Mr. Pulley for Vixen, although others at Horwood went for even longer prices. There was a capital Guernsey in this class, exhibited by Mr. James, bred by Mr. Le Page, and commended by the judges; while Mr. Gilbey sent some of his crack Dauncey tribe, that commanded no attention whatever. There were some very capital cows in the class, and a still better lot of heifers, where public opinion did not go altogether with the judges. Thus,

although they took one of Mr. Gaudin's heifers for first, and a particularly good Guernsey for second, they did not make the most money. Mr. Huyshe sold his Guernsey well, as it was thought, for £40, whereas Mr. Middleton made 140 gs. for a couple of merely commended fawns, and we certainly thought Ringlet the sweetest looking thing of the lot; but the judges objected to her as not showing sufficient milking power or promise. In the milking cows of all kinds the Cuttleslowe Alderneys did better, the two couples taking a second prize and high commendation, being only beaten by Mr. Statter's brace of Ayrshires, one of which was a very perfect specimen of her sort. Brittany Shorthorn, Guernsey, "nearly" Shorthorn, and very highly-bred Shorthorn competed here; but the Ayrshires and the Jerseys had palpably the best of it. There was another very mixed company of "Other Established Breeds," wherein the Duke of Buckingham showed a very magnificent specimen of the Loughorn, and Mr. Tilden Smith two of his neat Sussex cows. Then there were black Scotch polls, Kerrys, and few more Loughorns, and above all a cross! None of these were of any great mark, while they ran in all, bulls and cows, to just a couple of dozen. In fact, it was more of an Old Curiosity Shop than anything else.

The average excellence of the Oxford sheep show was undoubtedly very high, although its main strength rested rather on more recent additions to the prize-sheet, like the Shropshires and Oxfords, than on any very remarkable merit in the old-established breeds of Leicesters and Southdowns. Nevertheless, nearly all the leading flocks were represented in the opening section of thoroughbred longwools, where the Turners, father and son, Colonel Inge's Executors, Mr. Cresswell, Mr. Sanday, Mr. Hutchinson, Mr. Spencer, and Mr. Borton had entries. The shearing rams were not particularly good, nor particularly well judged, Mr. Borton's first being weak in his neck, deficient in his thighs, and at best but a delicate flash sheep; while the second prize, from Thorpe Constantine, is quite the other's equal in other respects, without the weak places so apparent in the winner. About the best sheep, however, of the class is Mr. Hutchinson's reserve, uniting as he does fine quality with great strength of constitution and a large amount of *natural* flesh; some further proof of his worth being shown in the fact of this being about the first sheep let—to Mr. John Booth, of Killerby. It is only fair to add that the fourth shearing is by Blair Athol, a ram of Mr. Borton's breeding. The Borton Blue Cap, a three-shear, still wearing well, and a wonderfully good sheep, has long been winning about Yorkshire, as well as at the Royal Meetings, and no doubt he was once more the best of his class; but the placing of the second is not so clear, as, for constitution and character, we should prefer Mr. George Turner, Jun., with his old ram put in as the reserve, or Mr. Sanday's third, the crack shearing of last season. In fact, Mr. Borton looked to get more than his fair share of success in these two classes. The winning pen of ewes are a very sweet, sorry lot, and Mr. Hutchinson next, like his rams commendable for size and constitution, as they are also of the same blood, by Blair Athol. There were some other creditable entries of Leicesters; but the Ravenstone flock has manifestly gone back, for the specimens exhibited here looked more like rough Irish sheep than the smart fashionable type which has so long been regarded as the pure Leicester model.

It sounds strangely enough that at a great Oxfordshire gathering the chief honours for Cotswold sheep should be taken by a Norfolk breeder. But so it was; for the big Hill men still hold aloof, in dread as it would seem of the shearing inspector. The Marham shearing, however, is a very handsome sample

of his kind, with a good fleece, a true frame, and a capital countenance; while his lineage goes directly to the Cotswolds, the sire having been taken from Mr. Robert Garne's flock at 120 gs. At the Harleston meeting, the only occasion on which he has previously been exhibited, this ram received an accumulation of prizes as the best of all the longwools. Mr. Lane's sheep show a deal of breeding, if perhaps without the weight of some of the others; while the Gilletts had some great grand animals in the class, which still for a Royal manifesto was respectable, and nothing more. The awards over, the old rams were anything but well received, it being maintained with some emphasis how there were better sheep in the class than any of the three which took the prizes, or were even commended by the judges. The first is a stylish, showy sheep, but faulty forward, and not very good in his touch; nor did the mutton of the second or third prove well to the hand. The Marham Royal prize sheep of two years past was quite overlooked, and the Hill men proclaimed almost with one voice that Mr. Robert Garne had far away for breed, symmetry, and quality the best of the entry. The Gillett ewes were great and good, and there were local premiums which produced some very limited and moderate competition. It is, indeed, a suggestive fact that in five classes of Cotswolds the judges only appended in all two commendations to the actual awards.

Of Lincolns there was but a short show, some thirty entries or so in three classes, but with some very good sheep amongst them, more especially in the old class of rams, where Mr. Dudding had two really admirable sheep, alike to be prized for fleece and form. The Bramston flock is losing its lead here, but Mr. Cartwright maintains his repute with two pens of honestly good ewes. The Rylands and other long-wools ran up to four exhibitors and five entries in three classes, Mr. Lynn winning where there was any competition with a Leicester-Lincoln or a Lincoln-Leicester, or some such "other long-wool;" though *The Times* refers to the Stroxtan sheep as "a specimen of the Ryland."

"The Oxford Down breeders are evidently holding back the strength of their hands for Oxford, for which meeting there is an extraordinary entry, one man having, as it is said, between twenty and thirty nominations in the shearing class." It was thus that we wrote some six weeks since in our report of the Bath and West of England show; and certainly there was an extraordinary entry at Oxford, in all of one hundred and eleven pens; while Mr. Wallis sent in from Shifford twenty shearlings, five old rams, and two pens of ewes, with which he took all the chief prizes. Of course there never was such a display of this breed, and if the Oxford show had any speciality as being held in Oxford, it was the show of Oxford sheep; while the moral of this lesson is that the breeders are gradually going away from the model they began with some years since, and getting more and more to Down type in appearance and Down character of wool. The first prize sheep perhaps scarcely show this so much as some others, preserving something of a happy medium between the original standard of an Oxfordshire and the refinement carried out in later years. We are speaking here more especially to the shearing class, where in some contrast to those above him, the third prize ram from Maisey Hampton takes strongly after the latest fashion. Amongst the old sheep the three prizes all smack more of the Down than anything else; while Mr. Gillett, of Cote, shows a couple of animals that tell more of what the Oxfordshire sheep once was, but these were put aside without any notice from the judges; whereas Mr. Treadwell's good pen of ten ewes, which took a prize, also inclined to the old sort. Mr. Wallis' big prize ewes, some with not very prime legs of mutton, were again more of a

medium; and Mr. Milton Druce's second best were quite of Down character, very handsome and neat, as a photograph was taken of one of the ewes as a proper sheep for the side of Mrs. Millington's prize cup, so that we may infer from this the kind of sheep which flock-masters should carry in their eye when engaged on the nice art of breeding an Oxford Down. The awards, however, were very well received, and one of the judges, Mr. Henry Overman, backed his opinion by taking the first prize shearing ram at 50 gs. for the season. This is a very clever sheep, full of muscle, with a famous leg of mutton, and far better than the second which begins with a poor mean head, and is hardly the second best sheep of the class, save from his being of the same sort. The best old ram, a Royal winner last year, is of a great size, with a breadth of back that is almost unsightly, and as he cannot walk it looks as if they had quite over-topped him. This was in many ways a very difficult section to properly appraise, for there are still so many varieties exhibited; whilst the judges certainly did not hold altogether to one particular line, and the shearing inspectors interfered, although we did not see their condemnations, as they should have been, hoisted up. Mr. Treadwell, however, was again in the black list, as this time we hear he is prepared with plenty of evidence to prove that his sheep were fairly shorn whatever the authorities may declare to the contrary. Mr. Milton Druce, indeed, sent in again two or three of the ewes put out at Taunton, and in fresh company these managed to pass "undetected."

"They feed so as to keep the touch true, they shear and trim so as to keep the coat right and the frame correct, and they draw them for show uniform in character and all with just the same points developed. How then can you expect to beat Lord Walsingham?" So said a looker on at Oxford, and of course there was no beating Lord Walsingham, who took all the prizes for rams and the first prize for ewes with the only pen he entered. But the Merton shearlings, though neat and smart, were by no means so good as at Manchester, as they did not show so much breeding and quality, while they occasionally lacked size. Still so even was the lot that the only discussion was as to which was really the best, many preferring the second, although the first looks to be alike the heavier and handsomer of the two. After Lord Walsingham comes not the deluge but Mr. Rigden; and this brings us to a point especially pertaining to ourselves. In the report of the Taunton Meeting we were hold enough to say that "the Sussex breeders fairly stood aghast over the capricious and altogether inexplicable reading of a Southdown, as here delivered. First of all the judges took a very neat, true-shearing from Buckland, and this they placed first. They next selected a sour-headed, lop-eared animal, as all over one of the worst sheep the Heasmans have ever entered, and this they placed second; and then they commended and highly commended three rams of Mr. Rigden's, standing close along-side, any one of which for Down character, style, or quality, was better than the second prize. In fact, Mr. Rigden should have been first, if not first and second, and after him Sir William Throckmorton. All the Heasmans' sheep were below their standard." Whereupon Mr. Francis Budd, one of the short-wool judges at Taunton, wrote politely in this strain: "Had the remarks in your paper emanated from a person who really understood what a sheep should be"—how "it was a burlesque for persons who have no experience to impugn the judgment of men who if they do not, ought to know something about their business," and so forth. In answer we had only to hope "that all these Southdown sheep might come together at Oxford," where Mr. Budd might learn something from men who "know something about their business." And they came together again here, and all

that Mr. Budd did at Taunton was wrong, and all that we wrote of the Southdowns at Taunton was right. Had not Lord Walsingham exhibited Mr. Rigden would have beaten both Sir Robert Throckmorton and the Heasmans, for Mr. Rigden was *highly* commended and the other two merely commended with the same sheep exhibited in the West. Of course there is only one question more to be settled, and that is whether such men as Mr. Lugar and Mr. Henry Fookes can be considered to know as much about the business of judging a Southdown as Mr. Francis Budd, of Hatch Warren, Basingstoke? We protested as strongly against the award in the old ram class at Taunton, where they put in as second prize one of the worst sheep in the entry, and put out a famous sheep of Sir Robert Throckmorton's. Unfortunately, although entered, Lord Portsmouth did not send No. 2, the second prize at Taunton, on to Oxford; while Sir Robert Throckmorton, of course, in a far better class took the second prize! We were subjected to some most amusing abuse from Mr. Budd for the tone in which we spoke of the Southdown judging at the West of England show; but had we to write our report over again, we should of course only protest still more strongly against the very monstrous mistakes made at that meeting. People had certainly never heard much previously of Mr. Budd as a Southdown judge, but how Mr. Woods came to commit himself in this way is quite inexplicable. Mr. Rigden's good old sheep has broken down in the interim, and he reached no higher than the reserve here; and Lord Walsingham's first, the second shearing at Manchester, has also gone in his hocks, or he is otherwise far away the best of all the rams, having grown in to a really grand but still very bloodlike sheep. Mr. Humphrey from Suffolk and Lord Sondes from Norfolk showed some very neat rams in both classes, but like the Duke of Richmond they lack the size and spread to contend against Lord Walsingham, Mr. Woods, and Mr. Day. On these conditions, and these only, the Merton ewes also won; but they were mere butcher's sheep compared either to the Duke's or Mr. Rigden's lively, beautiful, bloodlike pens, where the very heads and eyes of either lot should have been sufficient to give them the call. And it is into these pens after all that we must look very much for true breeding and fine character. Lord Walsingham's are heavy, meaty, useful animals: the Goodwood and the Hove ewes veritable little ladies, against whom it must have gone to the heart of a judge to array himself. In any company his Grace's pen could hardly have been *second best*.

There were precisely as many entries of Shropshires as of Oxfordshire Downs, but the class of shearing Shropshires reached to close upon eighty sheep, which took close upon four hours in judging. There is still a very strong inclination observable here, too, for Southdown type and short wool, but the large show in the younger class was generally of a better character than that got together at Manchester last year. There were a number of deep-fleshed heavy animals which it took a deal of time to weed out, as this hard labour looked to be very conscientiously performed. The first-prize shearing ram, shown by Mr. Coxon, of Freeford, is a very neat but rather short sheep, with deep flesh and a good leg of mutton and twist; if his wool might be taken exception to as too open and not quite thickly enough set. Mr. Mansell's next best, is a very handsome one of almost too fine a type, with a beautiful fleece and good mutton, so that it must have been a very close run between the two; but no doubt the first-prize sheep has the most lean flesh. Mrs. Beach's was another very taking sheep at first sight, but he could not move. Of a very different order of merit to these prize rams were the four entries from Frodesley, true samples of the sheep once in

favour but now gone nearly out of fashion; while anything like the character of a true Shropshire, either ancient or modern, was sadly wanting in some of the things exhibited. The old class of rams was moderately good, without containing any animal of extraordinary merit. Probably the mellow touch and beautiful texture of wool caused Mr. Evans' three-shear to be preferred to Mrs. Beach's two very good sheep, the third prize being a particularly strong useful sheep, with plenty of firm and natural flesh. By way of a contrast to what they had been leaning to so far, the judges highly commended a ram from Mr. Baker, of Atherstone, of just the good old "rent paying" stamp, that some years since would have stood higher on the list. This class, however, was altogether a difficult or a delicate one to judge, for the first prize sheep was bred by Mr. Masfen, one of the judges, who, we hear, retired so soon as he recognized the ram. It would however be better, if possible, that the Judges' Committee should avoid any recurrence of such a case, as no doubt any jury of exhibitors would object on principle to a judge who had bred any horse, bull, or sheep he had been selected to act over. Then last year Mr. Masfen, in conjunction with Mr. Coxon, put Mrs. Beach's third Oxford sheep before the second, as the third let last year in Birmingham for 40 gs., and the one put over him for 14 gs.; while Standard Bearer was, we believe, sold for 38 gs. It is noticeable that whereas at Manchester none of the judges of Shropshire sheep were breeders of Shropshires, the Council have now taken the three judges for the present year all from the same county, and that not Shropshire; though no doubt many exhibitors would feel better satisfied had known good judges and breeders of these sheep been taken, one for one, from different districts. With the lists they have to choose from, and the knowledge the Council should have of these matters, some of the appointments or "sets" of judges read a little strangely, and one is half inclined to ask, with Mr. Middleton, for some explanation of the system. The pens of Shropshire ewes did not run to a very strong class, while this was so comically appraised as to defy anything like criticism. The judges seemed to have utterly abandoned any "principle" which they might so far have observed, and the public await with some anxiety the explanation which will be given through the Society's *Journal*. At Manchester loud were the murmurs at Lord Chesham's Downs getting prizes, and at Oxford again does the Latimer flock win in a class, moreover of all others, which should prove *breed*. There were two or three cases of unfair shearing in the Shropshire classes, but we never saw any return of the Inspectors put up.

There was a short entry of Hampshires, while both Mr. Rawlence and Mr. Morison have shown better sheep than they had here, and as they are the especial champions of the breed, a conclusion is very readily arrived at. The Dorset men also offered a very poor front for their special classes, there being in all only a dozen entries against thirty at Taunton. The same sheep were here pretty much in the same places, although it was discovered when too late to tutor the judges, that Mr. Mayo's otherwise big useful shearing had black eyes instead of white, and that his horns were not nearly so well curled as they should have been. And here again of course arises the question as to the judges duly appointed being quite up to this branch of their business?

The nags and agricultural horses were judged in the same ring, with a rope run down the middle, forming a temporary division, as at Bury St. Edmunds and other meetings—a very good plan, if a rail took the place of the rope. To the latter, we have always objected, as being dangerous both to horses and riders, or more particularly to foals. It was, indeed, almost in the ad-

joining meadow that we saw Conolly, the jockey, fall over the ropes and meet with his death, for this accident ultimately proved the cause of it; and glad were we to see Mr. Robert Leeds, who was assisting in the circle, order the rope to be removed as the brood mares and foals came in, although for the time this stayed the cart-horse division from proceeding with their work. The boxes were very good, but if a little more attention had been paid to the fastening, Go-ahead's foal would not have been injured by the end of a large projecting screw. In other respects the management of the ring and the telegraph board was commendable, but the fashion of allowing the little-great with their pitiful satellites to intrude and exhibit themselves in the ring as they did on Tuesday, and with their broad well-stuffed carcasses to impede the view of members, and those that pay and come long distances to see horses, is a monstrous abuse, or, perhaps, rather impertinence. Some of these intruders were the representatives of county families, and very good people, too, in their proper places, but who, when forcing themselves into the ring where they have no right to be, remind one more of "pushing young persons" in some business concern than men who should be possessed of that gentlemanly feeling, devoid of selfishness, that kept hundreds of their superiors on the outside of the ring. It would be as well, we think, if some of these great men would recollect that, like many big horses, they have nothing to commend them, not even their size, and so keep their places. "Manners, you baste!" shouts a groom in charge of a thorough-bred stallion, who comes plunging out of his box, as the clock strikes eight, and goes rearing and neighing into the ring, regardless of his number and position, like the perfect gentleman that he is, for it is no other than that handsome old son of Orlando, The Chevalier d'Industrie, from Swcliffe Paddocks. Like most of us, the Chevalier is not without his faults, but they are counterbalanced by good points and we would rather, though the old fellow is a little shrunk since we last saw him, have the favour of sending one mare to him than forty to this short, piggy, small armed, coachy-stepping, Laughing Stock, with his light girth, though he is made up and stuffed a great deal better than Dickens' old raven, Grip. Still this is altogether a capital class of thorough-bred stallions, with thirteen entries, and twelve of them before the judges—the absentee being Major Barlow's Deerfoot, the hero of Saffron Walden and Sudbury. That brown, with the Roman nose and somewhat of the Dutchman's head and middle, is Schiedam, who would make a useful country horse; while the pick of the basket is Knowsley, with a strain of Stockwell and Orlando in him, and a very compact showy animal, if those strong beefy shoulders are not exactly hunting-like to our eye, as for his top we fancy those arms fall off a bit above the knee. Otherwise you might trot about to many shows before you saw anything better than the muscular yellow bay. Then this elegant nice-topped one, rather high on the leg and light of bone for a hunter sire is Lord Portsmouth's Sydmonton, a fair performer on the turf, but out of his element here. About Lord Craven's Blackdown again there is something taking, but his forehead wants correcting; and Redoubt, though neat, with length, and by Artillery, a hunter sire, is not quite so himself, though still a useful nag. This chesnut is Petruccio, that it would be love's labour lost to cross with Bonny Kate, the shrew, or anything else, whilst possessed of such a neck and shoulders—that is with any expectation of getting a hunter. The great and grand-looking horse, with length on short limbs, but rather crooked in his forelegs, or as our Norfolk friend calls it, "cromy," though he looks like carrying Sir Watkin, and is one of the most powerful-looking thorough-breds we re-

collect, has hardly quality enough; nevertheless with some sets of judges, those lovers of an eye-full, who gave Sir George Cholmondeley Angelus prize after prize, we think General Peel might have stood a good chance of returning to Swackliffe victorious. Lord Fitzharding's Commissioner is of fair form, but there is not much of him, while Mr. Casson, the owner of the well-known prize horse Motley, in Sincerity by Red Hart has a very useful country horse, if his shoulders do not quite please us for hunting purposes; while he is rather shelly in his back, and his limbs, though great, are fleshy below knee. This varmint one-eyed old horse, with the lengthy middle on the short leg, who is trying to attract the attention of the judges by hammering away with the stringhalt is Simple Simon, whose Truelove, one William, holds out at Woodstock. To sum up, we think the second and third places might have been better filled, and on the whole that it was more of a coaching than a hunting verdict. Still the award goes quite with the lot of the late Lord Glasgow's stallions in November, when Lord Norreys took Knowsley at 820 guineas, and Mr. Gulliver General Peel at 600 guineas—the two top prices. Knowsley is now at Tetsworth, or Ryeccote, where Marsk, the sire of Eclipse, once stood, and where we have seen many a fox found. There was a very poor show of roadster stallions, with the exception of the first and second, Ambition and Sportsman, who are as well known in the ring as prize takers as the High Street is in Oxford; while in *pony* stallions the handsome Perfection, the Islington and Sudbury prize pony, was beaten by the neat good-stepping Islington prize cob, Sir George, but as it was for *pony* stallions we think Perfection answered to the description the best, and ought to have won. Now we come to the hunters and hackneys, which, with the exception of a prize horse here and there, contributed to one of the greatest failures since that of Overend and Gurney. How did it happen? Was it a want of pluck? for many did we hear say, "Oh, I wish I had sent mine!" or, "I should have sent old so-and-so if I had known there had been such a lot; but I thought this and I thought that were coming," as think what they may, the show in this respect was a disgrace to the county. What would that tub of a man in clerical hunting costume, old gruff Griff Lloyd—so well known in Oxford and with the Bicester of thirty years ago—have thought of such an exhibition? What would he have said to improving the breed of horses? Why—"You should have seen my old flea-bitten grey and my brown horse, they were something like weight-carriers!" Or the late Mr. Drake, that model both of a Master-of-hounds and a gentleman, would have told you, though no boaster, that one of his whips rode a Master Richard horse, that, for form or pace, would have distanced the lot. The Messrs. Coxes, of Craig's Court, more familiarly known as "the long Coxes," and their worthy parent, would not have looked at such cattle as hunters; while Farmer Roberts, of Waterperry's old grey, and mild-speaking Dick Harding's strain of Master Henry, were very gems of horseflesh to the things shown here. There still is Tollit, the dealer, better known as Joe Tollit—*Palnam qui meruit Tollit*—who sends nothing for the honour of Oxford, although looking as dark and wiry as ever, that we fancy, in spite of a certain tenderness of the toes, we are again breathing the air of thirty years ago! But the deception is gone, for there stand a couple looking rather long in the tooth and "eromy" about the knees, and they can only give us a year or two; while others we are told went straight and well as long as they could, and then to ground. In some village churchyard, where that lover of darkness, the owl, wakes the night with shrill quivering notes as he shrieks over them a requiem in a long continuous *whoo-oo-oo-oo-hoop!* We ourselves, however, still love

the light, and will return to the judges and the hunting brood inares, headed by that model of a hunter old Goahead, that we have so often put together in this paper, and that in the company now she is, there is about as much merit in placing first as there would be picking out a sovereign from fourpenny-pieces. The class was stronger in numbers than worth, although there were several fair samples amongst them. The second mare was a tolerably well-made one, barring her shoulders, and with more quality than the old original Marigold, a well-known prize-taker as well as dam of Sprig of Nobility, and other flash-looking horses; while the third, Heliotrope, a fine-looking mare, wanted another cross of the thoroughbred to worm the coacher out of her. Mr. Blake's Canary was of a hunting stamp; and Lord Norreys's American-bred Myrtle, a mare that appeared in the colours of Mr. Ten Broeck, was fairly framed; and the Earl of Craven's Queen of Sheba a big loose lolling goer. Then, Proserpine from the Isle of Wight, Mr. Kerby's May Queen, Mr. Parsons' Duchess, Mr. Bennett's Forest Lass, Lord Norreys's Brunette, and Mr. E. Stanton's Lady Mary had some pretensions to hunting character, but they were by no means perfect. Lord Norreys's bay hackney has length on a short leg, but is as a standstill hack not so good-looking as the second or third; the chesnut Polly being very handsome, and Lord Craven's a really pretty little hack with plenty of character. Topsy, a pony mare not exceeding fourteen hands high and in her twenty-fifth year, walked over without opposition. The four-year-olds with eleven in were poor indeed; the first turning up after considerable hesitation in the General by Big Ben, standing nearer seventeen than sixteen hands high, and who will take a considerable time to furnish, as he is thin in his thighs, and goes weak behind—if we recollect right he showed better at Islington, where there was less room. The second is the Ace of Clubs, a commended one at Islington, in a four year old class, and a prize-taker at Sudbury, where we gave a description of him. The third was nothing to look at, and Mr. Milburn's Merry Maid, though of fair form in her body and limbs, had a short neck and a knack of throwing her head up. In the next, lot Brian Boru, Mr. Booth's well known prize-horse, was pronounced the best, while Strathnairn is a useful looking provincial but nothing more; and the third, Fenian, the Sudbury prize horse, whose form and dreadfully wide-straddling hind-leg action we noticed in the report of that meeting. A very neat one of Mr. Cooks', that could move, but of no great substance, came in for nought, although she had been more successful at Gloster, Worcester, Winchcomb, and Islington. In a poor lot of Hackneys, Ada, a hardy wearing looking mare, that could move, went to the fore, as by far the best-looking; while the second was a four-year-old, by Laughing Stock, with no great pretensions to form and a slight inclination to sickle hocks. The judges had not a heavy day's work before them, and, like shining stars, spun it out accordingly, taking one hour and thirty-five minutes in coming to a verdict over the thorough-breds, "because they had nothing else to do."

The agricultural horses were better represented, though there were many very ordinary animals and a great many found wanting in soundness. The class in which that well-known model cart-horse, Honest Tom, received the winning colours was a capital one of twenty entries. The second is a very gay-coloured horse a chesnut with four white legs and a bald face, and not good in his forehead—as we could not see that Nugget of Gold was better than several behind him. Black Prince, formerly of Orlingbury, Northampton, and still high on the leg, is now the property of Lord Norreys, who

gives the farmers about him every opportunity of breeding something worth rearing by the use of his stallions. A. J., a smart horse, and well-known prize-taker, though by no means perfect in form, is as active, in his movements as a coach-horse, but an inquiry as to one of his hoofs and an odd foot caused him to be passed by, though the foot has been overlooked before, as he has often been A. I. in the prize-list. In a class of ten there were half-a-dozen good two-year-olds, Nonpareil being an active, lengthy, short-legged, handsome-looking horse, but a trifle short in the quarters, and Prince of good form but rather old-fashioned in the shoulder for these go-a-head times; while Crown Prince is a useful good-looking one, as Mr. Morrison's Black Prince and Mr. Grimham's Young Active were also nice horses. In the Clydesdale stallions Lord Beauchamp's grand specimen, the handsome Young Lofty that we never tire of looking at, put Sandy, merely a useful one of her Majesty's, and a weedy one called Aberdeen, of Mr. Terry's, entirely quite in the shade; while with no opposition, the Duke of Richmond took first and second with a couple of very ordinary-looking two-year-old Clydesdale entire colts. The Suffolks did not come out in such strong force as they are wont. In the all-aged stallions Harwich Emperor gathered fresh laurels for his brow; Royal Prince playing second who on a close inspection takes too much after Conqueror in his neck and shoulders to please us. Then the Earl is a faulty fore-legged one, that at two years old was first at Ipswich and second at Sudbury, where they swarm like bees. Mr. Badham's Hercules has a good head, neck, and limbs, and is a likely horse if put to some of the overtopped mares to get something more equally balanced. Young Emperor amongst the two-year-olds was again the force as at Sudbury, where he beat his own sire Harwich Emperor, and was now followed by a good-looking one by Cupbearer, kept at home for an accident while another by the same horse had capital thighs for a Suffolk. The third was a leggy one, and the highly-commended a dark chestnut out of Royal Moggy, was rather light in the girth. The agricultural mares and foals came out in strong force, numbering about a score; but there was nothing grand among them, although many were fair-looking and useful; still there was one thing in their favour—they all looked like work and earning their living, which many of the prize-horses do not. The Clydesdale mares were not great in numbers, Isabel being a big, heavy sample of the sort; while Colonel Lindsay's were lighter and more active, and old Mary is a favourite of the Queen's. The Suffolk mares were few but good, Matchett, that Queen of Suffolks, putting another £20 to her account with Capon's executors, the others being two well-known mares of Colonel Wilson's and Mr. Wolton's, Diamond and Pride. The three-year-old fillies, not Clydesdale or Suffolk, were good, and the two-year-old useful. Then the Clydesdale three-year-olds were not show animals; and the three two-year-olds not worthy of a prize, although exhibited by sovereigns and dukes! while the Suffolks were, both in the two and three-year-olds, very good, clever, if only mustering seven in both lots, the competitors being Colonel Tomline, Mr. Wolton, and Mr. Patmore. The business was anything but heavy in this Court, and the judges, like those on the riding and roadster bench, were not remarkable for quickness in arriving at their decisions, but they certainly had before them several ordinary animals of about equal merit.

If the district could do little for the horses it saved its credit with sheep and pigs, for, as with the Oxford Downs, there never before were brought together so many or such good Berkshires. The class of breeding sows, of this breed

more especially, was the finest ever seen, and, like the same class at Taunton, might have been generally commended. Indeed, many of the best pigs entered here were the same that showed so well at Taunton, although their places in the prize list were occasionally changed about. Thus, one of Mr. Stewart's finely bred sows now got to the head of her class, there being no doubt that Messrs. Duckering's Essex bred sow, which won at Taunton, had rather too much white about her to be quite orthodox. Nevertheless the Romford pigs are coming fast into fashion, for Mr. Griggs exhibited one on his own account which won fairly enough in a capital companion class of Berkshire boars, beating the now famous Cirencester College pig, Mr. Heber Humphrey, Mr. Stewart, and others, the whole lot of no less than twenty being generally commended. Then, in the large white breeds, Messrs. Howard's well prepared brother and sister did nearly as well again as they did at Taunton, where we gave them a character, the sow only being kept from first by some stock of very high quality exhibited by Mr. Walker, from Staffordshire. There must, however, be almost as much difficulty in settling the points and type of a white pig as of a Shropshire or Oxfordshire Down sheep. Mr. Peter Eden, for instance, can enter them as of a Large breed or of a Small breed, or as of a breed not qualified to compete in either of those classes, and yet they all seem to be of much the same character and family. In fact, they look to have been very judiciously improved into a smart Middle-breed, if we could not always mark that distinction between one variety and another which the prize-sheet would require. In the so-called small breed, however, the Cross Lane pigs were well beaten by a very handsome boar of Mr. Kershaw's breed, but exhibited by Mr. Nield, that has been winning all about the country. The Royal Windsors, from the specimen exhibited here, would seem to have gradually got away from the clever kind of pig they once were; nor were the Suffolks, either whites or blacks, so forward as might have been expected. Indeed, Mr. Sexton's white Our Mary Ann, a sow which was thought so highly of at Sudbury, only just reached to a commendation, the Leeds and Manchester fanciers having all the best of it. Then, amongst the blacks the Wherstead Kingcraft was worsted not only by Mr. Stearne but by an admirable pig bred by Mr. McCann in Worcestershire. The judges, however, passed over Mr. Sexton's entries not so much for want of merit as from being overdone, and standing, and moving very badly. Kingcraft certainly looked to be very weak behind, but he was soon sold to so good a judge of any kind of stock as Lord Portsmouth. It was not precisely the season to linger long over the pigs, of which the show, on the whole, was excellent, and the classes as ably appraised. There was scarcely a demur to any of the decisions—not even from Mr. Duckering, who enjoyed anything but his usual success, as this of itself is an implied compliment to the classes wherein he competed, and he was to be found in most of them.

The judges paid a second visit to sixteen out of the twenty-one farms entered for the 100 gs. cup; while they admit that the peculiarity of the season had much to do with the award eventually arrived at. Captain Dashwood, the Stillgoes, Mr. Denebfield, and Mr. Treadwell had been the favourites in the county, and we had certainly never heard Mrs. Millington's name mentioned until it was announced at the meeting. Her husband came from Lincolnshire, where, as Lord Kesteven said at the meeting, "they farm under a famous Tenant Right principle." The prize farm at Ashgrove, in the Bi-cester county, runs to about 900 acres, and is the property of the Duke of Marlborough; while Mr. Treadwell's occupation at Upper Winchendon, is somewhere about half

this extent; but it has long been known as "The Model Farm." The four-course system is the one adopted at Ashgrove, and a six-course on the second prize holding immediately after the award was made our contemporary, *The Gardener's Chronicle*, took time by the forelock, ran away from Oxford, and made a call on Mrs. Millington; the following passages from his report read somewhat strangely in the chronicles of a prize farm:—"The visitor will be struck by the buildings. He will see yards without sheds, generally poor accommodation for cattle; he will not see cattle boxes or elaborate barn arrangements. The stables are devoid of stalls, the design of the buildings is altogether inconsistent with those rules which should guide the architect in planning them. He may perhaps be staggered by the sight of wooden ploughs, antiquated drags, clumsy waggons, and old-fashioned utensils of various kinds: a very different assortment of implements will meet his eye from what perhaps he has recently witnessed at the Oxford meeting: and, in a word, he may be a little discouraged with what he sees. Again, when he glances at the live stock he will see a mixed and moderate class of cattle, a shabby lot of pigs, no grand sheep, and a poor lot of poultry. If he looks at the fences he will find nothing to admire particularly, and as he walks over the grass land he will be offended by the presence of rushes, unstubbed thorns, ragged ditches, and not very neatly-filled drains. Again, as he extends his observations from the buildings over the farm itself, he will fail to see the prescribed sheepfold with its hurdles and its fresh vetches or cabbages, its troughs for artificial food, its water-carts, and its shelter from the noontide heat. Lambs will be seen, still unweaned, on large bare pieces of seeds, with their mothers, looking anything but blooming, under the blaze of this tropical July sun. The land is poor, and it bears a magnificent crop of wheat and barley. The portion under corn is indeed a pleasant sight, both from its joyful luxuriance and, so far as we could judge, its cleanness. Then again, when the roots are looked at, they are surprisingly good for the season and for the district. There is nothing like them for miles around. It is, then, in these main features of corn and roots that the great charm of this occupation lies, and far be it from us to underrate their importance. There are 18 horses kept, and the work is partially performed by steam cultivation in the spring. The horses are now receiving one bushel per week of Indian corn, crushed, and straw chaff. The steam cultivation is hired, and the grubber or cultivator is preferred to the plough. The rotation followed is that pursued in Lincolnshire, and the general management partakes of that of the same county." The decision, no question, will take a deal of talking and writing about, both in and out of the Society's *Journal*.

PRIZE LIST.

HORSES.

(All ages calculated to July 1st, 1870).

JUDGES—Cart Horses.—

M. Biddell, Playford, Ipswich.
A. Turnbull, Cresswell, Morpeth.
J. C. Woolhouse, Wellingore, Grantham.
—Riding Horses.
R. Calder, Kelloe Mains, Edrom, N.B.
S. Robson, Westgate, Louth.
J. Smith, Humbarton, Boroedridge.

Cart Stallion, foaled before the 1st of January, 1868 (not qualified to compete as Clydesdale or Suffolk).—First prize, £25, W. Welcher, Mouse Hall, West Tofts, Brandon, Norfolk (Honest Tom); second of £15, J. Manning, Oringbury, Wellingborough (Young Champion); third of £5, J. Hunt, Water Eaton, Oxford (Nugget of Gold). Reserve and Highly Commended: Lord Norreys, Tetsworth, Oxon (Black Prince).

Cart Stallion, foaled in the year 1868 (not qualified to compete as Clydesdale or Suffolk).—First prize, £20, W. Wynn, Cranhill Lays, Craiton, Alcester, Redditch (Nonpareil); se-

cond of £10, T. Anger, Little Hinton, Shrivvenham (Prince); third of £5, W. Enston, Claydon, Warwick (Crown Prince). Reserve: T. Cartwright, Dunston Pillar, Lincoln (Warrior).

Clydesdale Stallion, foaled before the 1st of January, 1868.—First prize, £25, Earl Beauchamp, Madresfield Court, Malvern, Worcester-shire (Young Lordy).

Clydesdale Stallion, foaled in the year 1868.—First prize, £20, The Duke of Richmond, K.G., Goodwood, Chichester (Britain); second of £10, The Duke of Richmond (Lord Francis).

Suffolk Stallion, foaled before the 1st of January, 1868.—First prize, £25, I. Rist, Tattingstone, Ipswich (Harwich Emperor); second of £15, C. Boly, Alton Hall, Stutton, Ipswich (Royal Prince); third of £5, Colonel Tomline, M.P., Orwell Park, Nacton, Ipswich (Earl). Reserve: G. D. Badham, The Lawn, Bulmer, Sudbury (Hercules).

Suffolk Stallion, foaled in the year 1868.—First prize, £20, I. Rist (Young Emperor); second of £10, The Executors of the late T. Capon, Dennington, Wickham Market; third of £5, W. Wilson, Ballham Hall, Ipswich. Reserve and Highly Commended: S. Wolton, Newbourn Hall, Woodbridge.

Thorough-bred Stallion, suitable for getting hunters.—First prize, £50, General Peel, Marble Hill, Twickenham (Knowsley); second of £25, C. and J. Moffat, Kirklington Park, Carlisle (Laughing Stock); third of £10, J. Casson, Burgh-by-Sands, Carlisle (Sincerity). Reserve: W. Gulliver, Swadcliffe Stud Farm, Banbury (General Peel).

Stallion, not less than 14 hands 2 inches, nor exceeding 15 hands 2 inches, suitable for getting Hackneys.—First prize, £20, J. Grout, Woodbridge (Sportsman); second of £10, C. Beart, Stow, Downham Market (Ambition).

Pony Stallion, under 14 hands 2 inches.—First prize, £15, H. Roundell, Otley (Sir George); second of £10, J. A. Ransome, Ipswich (Perfection). Reserve: J. A. Doyle, Plasdulas, Abergele, Denbigh (Trump).

Cart Mare, in foal, or with foal at foot (not qualified to compete as Clydesdale or Suffolk).—First prize, £20, T. Statter, jun., Stand Hill, Whitefield, Manchester (Fanny); second of £2, H. G. Colbourn, Lower Heyford, Banbury (Star); third of £5, A. H. Thurstby, Wormleighton, Leamington (Nelly). Reserve: Lord Norreys.

Clydesdale Mare, in foal, or with foal at foot.—First prize, £20, R. Waugh, Scathill, Irthington, Carlisle (Isabel); second of £10, Lieut.-Colonel R. Loyd-Lindsay, M.P., Lockinge Park, Wantage (Darting); third of £5, Her Majesty the Queen, Windsor Castle (Mary). Reserve: Colonel R. Loyd-Lindsay (Maggie).

Suffolk Mare, in foal, or with foal at foot.—First prize, £20, The Executors of the late T. Capon (Matchett); second of £10, Lieut.-Colonel Fuller Maitland Wilson, Stowlaughton Hall, Bury St. Edmunds (Bury Empress). Reserve and Highly Commended: S. Wolton (Diamond), and Colonel Fuller Maitland Wilson (Ruby). Commended: S. Wolton (Pride).

Mare, in foal, or with foal at foot, suitable for breeding Hunters.—First prize, £25, J. T. Robinson, Leckby Palace, Asenby, Thirsk (Go-a-Head); second of £15, R. Aldworth, West Agboure, Duddo (Margold); third of £5, W. Tindall, Ashfield House, Lincoln (Heliotope). Reserve: J. C. Blake, Oxford (Canary).

Mare, not less than 14 hands 1 inch, nor exceeding 15 hands 1 inch, in foal, or with foal at foot, suitable for breeding Hackneys.—First prize, £20, Lord Norreys (Kate); second of £10, A. Sherratt, Odepitchard, Hereford (Polly); third of £5, Earl of Craven, Ashdown Park, Shrivvenham. Reserve: E. and A. Stanford, Eatons, Steyning, Sussex (Christabel).

Pony Mare, not exceeding 14 hands.—First prize, £10, G. B. Morland, Abingdon (Topsy). No competition.

Cart Filly, three years old (not qualified to compete as Clydesdale or Suffolk).—First prize, £15, C. Lister, Coleby Lodge, Lincoln (Royal Duchess); second of £10, J. and F. Howard, Britannia Farm, Bedford (Rosebud); third of £5, J. Druce, Eynsham, Oxford (Poppet). Reserve: W. Rowland, Shabbington, Thame (Jewel).

Clydesdale Filly, three years old.—First prize, £15, G. H. Head, Rickerby, Carlisle (Deborah); second of £10, The Duke of Richmond (Darting). Reserve: G. Hampton, Findon Worthing (Thistle).

Suffolk Filly, three years old.—First prize, £15, S. Wolton (Duchess); second of £10, S. Wolton (Princess). Reserve and Highly Commended: Colonel Tomline (Smart).

Cart Filly, two years old (not qualified to compete as Clydesdale or Suffolk).—First prize, £30, S. Davis, Woolashill, Pershore (Pleasant); second of £15, J. Denchfield, Burston House, Aston Abbots; third of £5, Sir H. W. Dashwood, Bart., Kiblington Park, Oxford (Lucy). Reserve: The Rev. J. Hitchcock, Chitterne All Saints, Heytesbury, Wilts.

Clydesdale Filly, two years old.—No merit.

Suffolk Filly, two years old.—First prize, £15, S. Wolton; second of £10, Colonel Tomline (Moggy). Reserve: J. Patmore, Bishop Stortford (Silver 2nd).

Hunters, four years old (Mare or Gelding).—First prize, £30, S. Berridge, Drayton Lodge, Banbury (General); second of £15, J. Grout (Ace of Clubs); third of £5, A. Sherratt

(George). Reserved: T. Milburn, Grinsdale, Carlisle (Merry Maid).

Hunters, five, six, or seven years old (Mare or Gelding).—First prize, £15, J. B. Booth, Killybegs Hall, Caterick (Brian Born); second of £10, Lord Norreys (Strathairn); third of £5, Colonel Fuller Maitland Wilson (Fenian). Reserve and Highly Commended: J. Watson, Waresley, Hartlebury, Kidderminster (General Hood).

Hackney (Mare or Gelding), not exceeding 15 hands 1 inch, under eight years old.—First prize, £15, H. S. Woodcock, The Helms, Wigan (Ada); second of £5, C. Moffat, Crosby-on-Eden, Carlisle (Fanny). Reserve: J. C. Blake (Leah).

CATTLE.

(All ages calculated to July 1st, 1870.)

SHORTHORNS.

JUDGES of Bulls.—H. Aylmer, West Dereham Abbey, Stoke Ferry.

W. Bowstead, Hackthorpe Hall, Penrith.
J. R. Singleton, Givendale, Ripon.

Bull above three years old.—First prize, £40, C. W. Brierley, Rhodes House, Middleton, Manchester (Bolivar); second of £20, G. R. Sanders, Nunwick Hall, Penrith (Edgar); third of £10, T. E. Pawlett, Beeston, Sanday, Bedford (Baron Killybegs). Reserve and Highly Commended: R. Chaloner, King's Fort, Kells, Meath, Ireland (Sovereign). Highly Commended: W. F. Faviell, Down Place, Guildford, Surrey (Shuttlecock). Commended: G. Garne, Churchill Heath, Chipping Norton (Royal Butterfly 20th).

Bull above two and not exceeding three years old.—First prize, £25, R. Bruce, Newton of Struther, Forres, Co. Elgin, Scotland (Scotsman); second of £15, Colonel C. Towneley, Towneley, Burnley (Baron Humberk); third of £5, J. Wright, Green Hill Head, Penrith, Cumberland (Man's Estate); Reserve and Highly Commended: J. Christy, Jun., Boyton Hall, Chelmsford (Duke of Babraham). Commended: R. Sneyd, Keele Hall, Newcastle, Staffordshire (Iron Master).

Yearling Bull, above one and not exceeding two years old.—First prize, £25, Emily Lady Pigot, Branches Park, Newmarket (Bythis); second of £15, W. Linton, Sheriff Hutton, York (Lord Irwin); third of £5, Lord Braybrooke, Audley End, Saffron Walden (Hoydon Duke). Reserve and Highly Commended: The Earl of Aylesford, Packington Hall, Coventry (Magdala). Commended: T. E. Pawlett (Royal Booth).

Bull Calf above six and not exceeding twelve months old.—First prize, £15, H. Dudding, Panton House, Wragby (Robin Hood); second of £10, R. Stratton, Buderop, Swindon (Master Glanville). Reserve and Highly Commended: Col. C. Towneley (Maid of Oxford's Baronet). Highly Commended: T. Garne and Son, Broadmoor, Northleach (First Wrangler). Commended: T. Garne and Son (The Proctor), Major H. M. Stapleton, Myton Hall, Helperry (Lord of the Manor), and Colonel C. Towneley (Towneley Oxford).

JUDGES of Cows.—C. Howard, Biddenham, Bedford.

S. Rich, The Cedars, Fearnall Heath, Worcester.

M. Stephenson, Fourstones, Hexham.

Cow above three years old.—First prize, £25, G. Garne (Lady Lavinia); second of £10, Emily Lady Pigot (Queenie of Rosalea); third of £5, J. How, Broughton, Huntingdon (Lady Anne). Reserve and Highly Commended: G. Garne (Pride of the Heath). Commended: W. Bradburn, Wednesfield, Wolverhampton (Miss Chesterfield), and G. Garne, (Duchess of Towneley).

Heifer in-milk or in-calf, not exceeding three years old.—First prize, £15, J. A. Mumford, Chilton Park Farm, Thame (Camilla); second of £10, R. Eastwood, Thorneyholme, Clitheroe (Double Butterfly 3rd); third of £5, R. Stratton (Peers). Reserve and Highly Commended: J. How (Windsor's Butterfly). Commended: Emily Lady Pigot (La Belle Hélène).

Yearling Heifer above six and under twelve months old.—First prize, £15, D. McIntosh, Havering Park, Romford (Knightley 2nd); second of £10, H. Dudding (Countess of Yarborough); third of £5, J. How (Vesper Queen). Reserve and Highly Commended: R. Stratton (Flower Girl). Commended: W. Bolton, The Island, Orlart, Gorey, Wexford, Ireland (Ally Gwynne), E. A. Fawcett, Childwick Hall, St. Albans (Highland Maid), and G. Garne (Genevieve).

Heifer Calf, above six and under twelve months old.—First prize, £10, Colonel C. Towneley (Baron Oxford's Duchess); second of £5, R. Marsh, Little Offley House, Hitchin (Blossom). Reserve and Highly Commended: T. Statter, Jun. (Stanley Rose). Commended: Lord Walsingham, Merton Hall, Thetford (Oxford Belle), and R. Stratton (Fair Rosalie).

HEREFORDS.

JUDGES.—G. Morgan, Lanchirabo, Hereford.

S. W. Urwick, Leinthall, Ludlow.
H. Yeomans, Stones Court, Hay.

Bull above three years old.—First prize, £25, Sir Joseph Russell Bailey, Bart, M.P., Glanusk Park, Crickhowell

(Stanway); second of £15, Her Majesty the Queen (Prince Leopold); third of £5, T. Thomas, Saint Hilary, Cowbridge (Sir John 3rd). Reserve: J. Morris, Town House, Madley, Hereford (Stow).

Bull above two and not exceeding three years old.—First prize, £25, Her Majesty the Queen (Prince Albert Edward); second, £15, W. Evans, Landowais, Usk (Monaghty 3rd); third, £5, T. Edwards, Wintcott, Leominster (Leominster 3rd). Reserve and Highly Commended: H. N. Edwards, Broadway, Leominster (Sir John). Commended: J. Baldwin, Ludington, Stratford-on-Avon (Lord Ashford).

Yearling bull, above one and not exceeding two years old.—First prize, £20, P. Turner, The Leen, Penbridge, Leominster (Trojan); second, £15, J. Harding, Bicton, Shrewsbury (Count Fasco); third, £5, R. Hill, Orleton Court, Ludlow (President). Reserve and Highly Commended: J. Morris (Cambridge).

Bull-calf, above six and not exceeding twelve months old.—First prize, £10, W. Taylor, Showle Court, Ledbury (The Oxford Lad); second, £5, R. Hill (Milton 2nd). Reserve and Highly Commended: T. Rogers, Coxall, Brampton Bryan (Student). Commended: T. Fenn, Stonebrook House, Ludlow.

Cow above three years old.—First prize, £15, T. Rogers, (Silk); second, £10, G. Pitt, Chadnor Court, Dilwyn, Leominster (Highlass the 4th); third, £5, R. Tanner, Frestley, Dorrington, Salop (Queen). Reserve and Highly Commended: Her Majesty the Queen (Flora); Highly Commended: P. Thomas (Lizzie).

Heifer, in-milk or in-calf, not exceeding three years old.—First prize, £15, W. Tudge, Adforton, Lentonwardine (Silver Star); second, £10, P. Turner (Livia). Reserve: J. Prosser, Honeybourne Grounds, Broadway, Gloucestershire (snowdrop the 2nd).

Yearling heifer, above one and not exceeding two years old.—First prize, £15, T. Fenn (Leonora 2nd); second, £10, W. Tudge (Lady Brandon); third, £5, T. Thomas (Sunbeam). Reserve and Highly Commended: J. Harding (Dahlia). The class commended.

Heifer-calf, above six and under twelve months old.—First prize, £10, H. R. Evans, Jun., Swanstone Court, Leominster; second, £5, T. Thomas (Sunflower). Reserve and Highly Commended: J. Harding (Lizzie Jeffreys). Commended: W. Tudge (Bonnie Belle); and J. Harding (Red Dahlia).

DEVONS.

JUDGES.—J. Overman, Burnham Sutton, Lynn.

T. Pope, Homingsham, Warminster.
R. B. Warren, Child Okeford, Blandford.

Bull, above three years old.—First prize, £25, W. Farthing, Stowey Court, Bridgwater (Master Arthur); second, £15, J. H. Buller, Downes, Crediton. Reserve and Commended: W. Taylor, Glynely, Westham, Eastbourne (Rifeman).

Bull, above two and not exceeding three years old.—First prize, £25, Viscount Falmouth, Tregethnan, Probus (Narcissus); second, £15, W. Farthing (Sir George). Reserve and Commended: Her Majesty the Queen (Napier).

Yearling bull, above one and not exceeding two years old.—First prize, £25, J. Davy, Flitton Barton, North Molton (Duke of Flitton 5th); second, £15, Viscount Falmouth, Probus; third, £5, W. Smith, Hoopern, Exeter (Pensylvania). Reserve and Highly Commended: J. A. Smith, Bradford Peverell, Dorchester (Duke of York). Commended: W. Farthing.

Bull-calf, above six and not exceeding twelve months old.—First prize, £10, J. Davy (Duke of Flitton 6th); second, £5, W. Farthing (Master Harry). Reserve and Highly Commended: W. Smith, Hoopern (Duke of Beaufort). Highly Commended: W. Taylor. The class commended.

Cow above three years old.—First prize, £20, W. Smith, Hoopern (Musk); second of £10, W. Taylor (Frederica); third of £5, W. Taylor (Alice Maule). Reserve and Highly Commended: J. A. Smith (Pet). Highly Commended: W. Farthing (Miss Bessie). Commended: W. Farthing (Lofty).

Heifer, in-milk or in-calf, not exceeding three years old.—First prize, £15, W. Farthing (Pretymaid); second of £10, W. Taylor; third of £5, J. A. Smith (Picture). Reserve and Commended: Her Majesty the Queen (Verberna).

Yearling Heifer, above one and not exceeding two years old.—First prize, £15, J. Davy (Temptress the 2nd); second of £10, W. Taylor; third of £5, W. Smith, Hoopern (Duchess). Reserve and Highly Commended: J. H. Buller. Highly Commended: Her Majesty the Queen (Princess Louise Victoria). The class commended.

Heifer Calf, above six and under twelve months old.—First prize, £10, J. Davy (Gay Lass); second of £5, W. Smith, Hoopern (Jessie). Reserve and Highly Commended: W. Farthing (First Fruit). Highly Commended: J. A. Smith (Picture); and W. Smith, Hoopern (Beatrice). The class commended.

CHANNEL ISLAND CATTLE.

JUDGES.—C. P. Le Cornu, Trinity Manor, Jersey.

G. Morgan, Lanchirabo, Hereford.

Bull above one year old.—First prize, £15, G. Deller, Greywell, Odiham (Delhi); second of £10, H. J. Le Feuvre, Le

Niemes, St. Peter's, Jersey (Duko 1th). Reserve and Highly Commended: W. G. Duncan, Bradwell, Stony Stratford. Highly Commended: W. Gilbey, Hargrave Park, Stanstead (Banboy); and Lieut.-Colonel Fuller Maitland Wilson (Vampire). Commended: J. and S. Salter, Folly Bridge, Oxford (Duke of Oxford).

Cow above three years old.—First prize, £15, J. Pulley, jun., Lower Eaton, Hereford (Vixen); second of £10, P. Gaudin, Spring Farm, St. Martin's, Jersey (Floribundus). Reserve and Highly Commended: J. Pulley, jun. (Spitful). Commended: W. Gilbey (Ban); G. Digby Wingfield Digby, Sherborne, Dorset (Julia); W. Chamberlin, Adderbury East House, Banbury (Ada); J. James, Les Vauxbelets, Guernsey (Dairymail); and J. James (Lassie).

Heifer, in-milk or in-calf, not exceeding three years old.—First prize, £15, P. Gaudin; second of £10, G. Huyshe, Rosenheim, Guernsey (Rosette). Reserve and Highly Commended: H. Middleton, Cuteslowe, Oxford (Ruby). Highly Commended: H. J. Le Feuvre (Duchess 14th). Commended: W. Gilbey (Banshee); C. M. Owen, Walton House, Oxford (Twilight); D. Cheminant, Sablons, Guernsey (Nanny); T. B. Le Page, Maison de Bas, Guernsey (Fanny); H. Middleton (Ringlet); and the Rev. T. K. Chittenden, Kirtlington, Oxford (Beauty).

NORFOLK AND SUFFOLK POLLED.

JUDGES.—T. Overman,
T. Pope,
R. B. Warren.

Bull above one year old.—First prize, £15, B. Brown, Thursford, Thetford (Norfolk Duke); second of £10, J. J. Colman, Carrow House, Norwich (Cherry Duke). Reserve and Highly Commended: S. Wolton (Broadback). Commended: Lord Sondes, Elmham Hall, Thetford (Bohemian).

Cow above three years old.—First prize, £15, J. Hammond, Bale, Thetford (Butler); second of £10, S. Wolton (Sprightly). Reserve and Highly Commended: B. Brown (Duchess). Commended: S. Wolton (Battersea Favourite), and Colonel Tomline, (Polly).

Heifer in-milk or in-calf not exceeding three years old.—First prize, £15, J. Hammond (Buttercup); second of £10, Lord Sondes. Reserve and Highly Commended: B. Brown (Hansom). Commended: B. Brown (Countess).

OTHER ESTABLISHED BREEDS.

JUDGES.—G. Morgan,
S. W. Urwick,
H. Yeomans.

Bull above one year old.—First prize, £15, the Duke of Buckingham and Chandos, Stowe, Buckingham (Young Conqueror—Longhorn); second of £10, T. Statter, Jun. (Polled Angus). Reserve and Highly Commended: R. H. Chapman, Upton, Nuneaton (Earl of Rollright—Longhorn). Commended: Z. W. Stilgoe, Adderbury Grounds, Oxon (The Prince—Polled Angus).

Cow above three years old.—First prize, £15, J. Godfrey, Wigston Parva, Hinckley (Red Rose 2nd—Longhorn); second of £10, T. Smith, Beckley, Hawkhurst (Betty—Sussex). Reserve and Highly Commended: R. H. Chapman (Brindled Beauty—Longhorn). Commended: T. Smith, (Fagg—Sussex).

Heifer in-milk or in-calf not exceeding three years old.—First prize, £15, T. Statter, Jun. (Polled Angus); second of £10, the Duke of Buckingham and Chandos (Lady Caroline—Longhorn). Reserve: G. Jenner, Parsonage House, Udmore, Rye (Young Cooke—Sussex).

Pair of Cows shown in full milk, specially adapted for Dairy Purposes.—First prize, £12, T. Statter (Ayrshire); second of £3, H. Middleton (Jersey). Reserve and Highly Commended: H. Middleton (Jersey). Commended: T. Garne and Son (Mozelle and Misfortune—Shorthorns).

SHEEP.

LEICESTERS.

JUDGES.—C. Clarke, Scopwick, Sleaford.
S. Jefferson, Preston Hows, Whitehaven.
G. Walmsley, Radston House, Bridlington.

Shearing Ram.—First prize, £20, J. Borton, Barton House, Barton-le-Street, Malton; second of £10, the Executor of the late Lieut.-Col. W. Inge, of Thorpe Constantine, Tamworth; third of £5, the Executor of the late Lieut.-Col. W. Inge. Reserve and Highly Commended: T. H. Hutchinson, Manor House, Catterick. Highly Commended: J. Borton. Commended: G. Turner, jun., Alexton Hall, Uppingham (for two rams); G. H. Sanday, Holme Pierrepont; and J. Borton.

Ram of any other age.—First prize, £20, J. Borton (Blue Cap); second of £10, J. Borton (Black Eye); third of £5, G. H. Sanday. Reserve and Highly Commended: G. Turner, jun. Highly commended: G. Turner, jun. (for another ram). Commended: G. H. Sanday.

Pen of five Shearing Ewes.—First prize, £15, the Executor of the late Lieut.-Col. W. Inge; second of £10, T. H. Hutchinson; third of £5, J. Borton. Reserve and Highly Com-

mended: G. H. Sanday. Commended: E. Riley, Kipling Cotes, Beverley.

COTSWOLDS.

JUDGES.—J. G. Attwater, Britford, Salisbury.
T. Porter, Barton, Cirencester.
E. Ruck, Castle Hill, Cricklade.

Shearing Ram.—First prize, £20, T. Brown, Marham Hall Farm, Downham Market, Norfolk; second of £10, R. Lane, Cottage Farm, Eastington, Northleach; third of £5, T. Brown. Reserve and Highly Commended: T. Brown.

Ram of any other age.—First prize, £20, T. B. Browne, Salperton Park, Andoversford; second of £10, J. Godwin, Troy Farm, Somerton, Deddington; third of £5, J. Godwin. Reserve and Highly Commended: T. Brown, Marham.

Pen of five Shearing Ewes.—First prize, £15, J. Gillett, Minster Lovell, Witney; second, J. Gillett; third of £5, R. Garne, Aldsworth, Northleach. Reserve: J. Gillett.

Ten Ewes, without reference to age, who have suckled lambs to June 1st.—The prize, £15, The Executors of the late T. Gillett, Kilkenny Farm, Faringdon. Reserve: J. Williams' Caerady, Cowbridge.

Ten Ram Lambs.—The prize, £10, J. Gillett, Oaklands, Charbury. Reserve: C. Gillett, Lower Haddon, Bampton, Faringdon.

Ram of any age.—First prize, £5, J. Godwin. Reserve: W. Cocher, Middle Aston.

LINCOLNS.

JUDGES (and for Ryland and other Longwool).—
W. Bartholomew, Waddington Heath, Lincoln.
J. H. Caswell, Loughton, Polkingham.
H. Mackinder, Langton Grange, Spilsby.

Shearing Ram.—First prize, £20, T. Gunnell, Milton, Cambridge; second of £10, R. Wright, Nocton Heath, Lincoln; third of £5, R. Wright. Reserve and Commended: R. Wright.

Ram of any other age.—First prize, £20, H. Dudding, Pantown House, Wragby, Lincoln; second of £10, H. Dudding; third of £10, W. F. Marshall, Branston, Lincoln. Reserve and Commended: H. Dudding. Commended: T. Cartwright, Dunston Pillar, Lincoln (for two rams).

Pen of five Shearing Ewes.—First prize, £20, T. Cartwright; second, T. Cartwright. Reserve and Commended: J. Pears, Mere, Branston, Lincoln.

RYLAND AND OTHER LONG-WOOLED.

(Not qualified to compete as Leicester, Cotswold, or Lincoln.)
Shearing Ram.—No entry.

Ram of any other age.—First prize, £20, J. Lynn, Church Farm, Stroxtun (Lincoln longwool); second of £10, J. T. Pinches, Hardwick, Pembridge (Ryland). Reserve: F. Street, Harrowden House, Bedford, Bury Royal (Norfolk longwool).

Pen of five Shearing Ewes.—First prize, £15, T. W. D. Harris, Wootton, Northampton.—No competition.

OXFORDSHIRE DOWNS.

JUDGES.—A. Edmonds, Longworth Lodge, Faringdon.
H. Overman, Weasenham, Brandon.
Z. W. Stilgoe, Adderbury Grounds, Banbury.

Shearing Ram.—First prize, £20, G. Wallis, Old Shifford, Bampton, Faringdon; second of £10, G. Wallis; third, C. Hobbs, Maisey Hampton, Cricklade. Reserve and Highly Commended: F. Street. Highly Commended: F. Street and G. Wallis. Commended: J. Treadwell, Upper Winchendon, Aylesbury (for two rams); A. F. M. Druce, Burgfield, Reading; and Sir H. W. Dashwood, Bart., Kirtlington Park, Oxford.

Ram of any other age.—First prize, £20, G. Wallis; second of £10, G. Wallis; third of £5, A. F. M. Druce. Reserve and Highly Commended: J. Longland, Crendon, Northampton. Commended: J. Treadwell (for two rams).

Pen of five Shearing Ewes.—First prize, £15, G. Wallis; second of £10, A. F. M. Druce; third, F. Gillett, Upton Downs, Burford. Reserve and Highly Commended: C. Gillett, Cote House, Bampton, Faringdon. Highly Commended: Sir H. W. Dashwood. Commended: J. Treadwell; C. Gillett; C. Howard, Biddenham, Bedford; and the executors of the late W. Button, Eynsham.

Ten Ewes, without reference to age, who have suckled lambs to June 1st.—The prize, £15, J. Treadwell. Reserve: F. Gillett.

Ten Ram Lambs.—The prize, £10, J. S. Parker, Hitley, Oxford. Reserve: W. Chillingworth, Cuddesden, Wheatley.

Ten Ewe Lambs.—The prize, £10, the executors of the late W. Button. Reserve: W. Chillingworth, Cuddesden.

SOUTH DOWNS.

JUDGES.—T. Cooper, Bishopstone, Lewes.
H. Fookes, Whitechurch, Blandford.
H. Lugar, Ingham, Bury St. Edmunds.

Shearing Ram.—First prize, £20, Lord Walsingham, Merton Hall, Thetford; second of £10, Lord Walsingham; third of £5, Lord Walsingham. Reserve and Highly Commended:

Lord Walsingham. Highly Commended: W. Rigden, Hove, Brighton; and Lord Walsingham. Commended: Lord Walsingham; H. Humphrey, Ashington, Hurst, Sussex; J. and A. Heasman, Angmering, Arundel, Sussex; H. S. Waller, Farmington, Northleach; and Sir W. Throckmorton, Bart., Buckland, Faringdon.

Ram of any other age.—First prize, £20, Lord Walsingham; second of £10, Sir W. Throckmorton, Bart.; third of £5, Lord Walsingham. Reserve and Highly Commended: W. Rigden. Highly Commended: Lord Walsingham; the Duke of Richmond, K.G., Goodwood, Chichester (for two rams); J. and A. Heasman; and Lord Sondes, Elmham Hall, Thetford. Commended: the Duke of Richmond; H. Humphrey; and Sir W. Throckmorton.

Pen of five Shearling Ewes.—First prize, £15, Lord Walsingham; second of £10, the Duke of Richmond; third of £5, W. Rigden. Reserve and Highly Commended: Lord Sondes. Highly Commended: H.R.H. the Prince of Wales, K.G., Sandringham, King's Lynn. Commended: H.R.H. the Prince of Wales; the Duke of Richmond; and Colonel Tomline.

SHROPSHIRE.

JUDGES.—B. Bond, Swansmoor, Great Haywood, Stafford. W. Kemp Bourne, Fisherwick, Lichfield. R. H. Masfen, Pendeford, Wolverhampton.

Shearling Ram.—First prize, £20, J. Coxon, Freeford Farm, Lichfield; second of £10, T. Mansell, Adcott Hall, Baschurch, Shropshire; third of £5, Sarah Beach, the Hattons, Brewood. Reserve and Highly Commended: Lord Chesham, Latimer, Chesham. Highly Commended: J. Evans, Uffington, Shrewsbury; and T. Fenn, Stonebrook. Commended: Lord Chesham (for two sheep); Sarah Beach; T. Mansell; and J. Evans (for two sheep).

Ram of any other age.—First prize, £20, J. Evans (Standard Bearer); second of £10, Sarah Beach; third of £5, Sarah Beach. Reserve and Highly Commended: T. Mansell. Highly Commended: W. Baker, Moor Barns, Atherstone. Commended: W. G. Preece, Frodesley Park, Shrewsbury.

Pen of five Shearling Ewes.—First prize, £15, Lord Chesham; second of £10, J. H. Bradburne, Pipe Place, Lichfield; third of £5, Lord Sudeley, Toddington, Winchcombe. Reserve and Highly Commended: J. H. Bradburne.

HAMPSHIRE AND OTHER SHORT-WOOLLED.

(Not qualified to compete as Southdown or Shropshire.)
JUDGES (and for Dorsets).—

W. B. Canning, Elston, Devizes.
J. R. Newton, Campfield, Woodstock.
H. Thurnall, Royston, Herts.

Shearling Ram.—First prize, £20, A. Morrison, Fonthill, House, Tisbury, Wilts; second of £10, J. Rawlence, Bulbridge, Wilton; third of £10, J. Rawlence. Reserve: A. Morrison.

Ram of any other age.—First prize, £20, J. Rawlence; second of £10, J. and M. Arnold, Westmeon, Petersfield, Hants; third of £5, S. King, Bockhampton Farm, Lambourne. Reserve and Commended: J. Robson, Bymess, Rochester, Northumberland.

Pen of five Shearling Ewes.—First prize, £15, J. Rawlence; second of £10, J. Rawlence; third of £5, J. Barton. Reserve: J. P. King, North Stoke, Wallingford.

DORSETS.

Shearling Ram.—First prize, £20, H. Mayo, Cokers Frome, Dorchester; second of £10, J. W. James, Mappowder Court, Blandford. Reserve: H. Farthing, Nether Stowey, Bridgewater.

Pen of Five Shearling Ewes.—First prize, £15, H. Farthing; second of £5, A. Bond, Hunstile, Bridgwater. Reserve: H. Mayo.

INSPECTORS OF SHEARING.—H. Bone, Avon, Ringwood.
R. Brown, Wigginton House, Tetsworth.
W. Jobson, Buteland, Hexham.

P I G S.

JUDGES.—J. Fisher, Woodhouse, Crosshills, Yorkshire.
J. Smith, Henley-in-Arden.
J. S. Turner, Chyngton, Seaford.

Boar of a large white breed, above twelve months old.—First prize, £10, J. and F. Howard, Britannia Farm, Bedford (Victor 2nd); second of £5, R. E. Duckering, Northorpe, Kirton-Lindsay (Cultivator 5th). Reserve: P. Eden, Cross Lane, Salford, Manchester (Sampson).

Boar of a large white breed, above six months and not exceeding twelve months old.—First prize, £10, M. Walker, Stockley Park, Anslow, Burton-on-Trent (Hero); second of £5, M. Walker (Alfred the Great). Reserve: G. Chapman, Seamere, Scarborough (Yorkshireman).

Boar of a small white breed, above twelve months old.—First prize, £10, H. Neild, the Grange, Worsley, Manchester

(The Doctor); second of £5, P. Eden (Young King of the West). Reserve and Highly Commended: W. Hatton, Addingham, Leeds. Commended: G. M. Sexton, Wherstead Hall, Ipswich (Young Snowball) and M. Walker (Little John 2nd).

Boar of a small white breed, above six months and not exceeding twelve months old.—First prize, £10, P. Eden (Young Prince); second of £5, W. Hatton, Addingham, Leeds (Dreadnought). Reserve and Commended: W. Parker, Bradford (Roger). Commended: G. Chapman (Robin Hood).

Boar of a small black breed.—First prize, £10, G. McCann, Court Farm, Malvern (Wallace); second of £5, S. G. Stearn, Brandstone, Wickham Market (The Parson). Reserve and Highly Commended: G. M. Sexton, (Kingcraft).

Boar of the Berkshire breed.—First prize, £10, G. Griggs, Oaklands, Romford (Prince); second of £5, R. Swanwick, of R. A. College Farm, Cirencester (Sambo 2nd). Reserve and Highly Commended: H. Humfrey, Kingstone Farm, Shrivensham (No. 293 M). The class Commended.

Boar of a breed not eligible for the preceding classes.—First prize, £10, J. E. Fox, Mansion House, Great Horton, Bradford (Young Prince of Airedale); second of £5, P. Eden, (King Lear 3rd). Reserve: R. E. Duckering (Wallace 2nd).

Breeding Sow of a large white breed.—First prize, £10, M. Walker (Thalia); second of £5, J. and F. Howard (Longville 2nd). Reserve: R. E. Duckering (Princess Royal). The class Highly Commended.

Breeding Sow of a small white breed.—First prize, £10, W. Hatton (Pride of the Village); second of £5, P. Eden (Sunshine). Reserve and Highly Commended: W. Hatton (Charming May). Highly Commended: R. E. Duckering (Lily). Commended: His Royal Highness the Prince of Wales, K.G.; J. Wheeler, Long Compton, Shipston-on-Stour (Lovely 2nd); and G. M. Sexton (Our Mary Ann).

Breeding Sow of a small black breed.—First prize, £10, S. G. Stearn (Aunt Hannah); second of £5, G. M. Sexton (Hester). Reserve: G. M. Sexton (Sunshine).

Breeding Sow of the Berkshire breed.—First prize, £10, A. Stewart, St. Bridge, Gloucester (Duchess); second of £5, R. Swanwick (Sally 6th). Reserve and Highly Commended: A. Stewart (Princess). Commended: J. Spencer, Villier's Hill, Kenilworth (Princess 6th); W. Parsons, Hill Farm, Elsie, Oxford; A. Stewart (Countess); H. Humfrey (No. 239 A); the Rev. H. G. Baily, Swindon; and E. C. Clarke, Manor Farm, Haddenham, Thame (Pride of the Vale).

Breeding Sow of a breed not eligible for the preceding classes.—First prize, £10, P. Eden (Busy Bee); second of £5, R. E. Duckering (Primrose). Reserve and Highly Commended: W. Hatton (Queen of the West). Highly Commended: P. Eden, Salford (Lancashire Lass). Commended: F. H. Everett, Bridham, Thetford (Bury Belle); and W. Parker, Leeds (Dewdrop).

Pen of three breeding Sow Pigs of a large white breed, of the same litter, above four and under eight months old.—First prize, £13, R. E. Duckering; second of £5, M. Walker (The Three Graces). Reserve: J. and F. Howard.

Pen of three breeding Sow Pigs of a small white breed, of the same litter, above four and under eight months old.—First prize, £10, G. M. Sexton (We Challenge All); second of £5, P. Eden.

Pen of three breeding Sows of a small black breed, of the same litter, above four and under eight months old.—First prize, £10, G. Turner, jun., Allexton, Uppingham (Improved Essex). No competition.

Pen of three breeding Sow Pigs of the Berkshire breed, of the same litter, above four and under eight months old.—First prize, £10, R. Swanwick; second of £5, R. Fowler, Broughton Farm, Aylesbury. Reserve and Highly Commended: R. Fowler. Highly Commended: The Rev. H. G. Baily. Commended: H. Humfrey.

Pen of three breeding Sow Pigs of a breed not eligible for the preceding classes, of the same litter, above four and under eight months old.—First prize, £10, M. Walker (Thalia, Teresa, and Tiny); second of £5, G. Chapman (Three Lilies).

Berkshire Boar and Sow, with their offspring, under twelve weeks old.—First prize, £5, H. Humfrey (Royal Oak and Beauty Bewitched). Reserve: Sir W. Throckmorton.

Pair of Berkshire Boars, from one litter, under six months old.—First prize, £10, H. Humfrey, (Nos. 314 M and N). Reserve: The executors of the late W. Hewer, Sevenhampton, Highworth.

VETERINARY INSPECTORS.—Professor Simonds.
Professor Varnell.
Assistant Inspector.—R. L. Hunt.

STEWARDS OF STOCK.

D. R. Davies, Mere Old Hall, Knutsford, Cheshire.
Jacob Wilson, Woodhorn Manor, Morpeth.
Sir Watkin W. Wynn, Bart., M.P., Wynnstay, Ruabon.

DIRECTOR OF THE SHOW.

B. T. Brandreth Gibbs, Half-Moon-street, Piccadilly, London.

FARMS IN THE OXFORD DISTRICT.

JUDGES.—Gibbons, Barnfoot, Cumberland.
H. H. Keary, Bridgworth.
W. Torr, Aylesby, Grimsby.

First prize of a silver cup, value 100 guineas, for the best cultivated farm in the district round Oxford, Mrs. M. E. Millington, Ashgrove, Ardley, Bicester; second of £50, J. Treadwell, Upper Winchendon, Aylesbury. Reserve and Highly Commended: R. Craddock, Lyneham, Chipping Norton. Commended: N. Stilgoe, and Z. W. Stilgoe, Adderbury, Banbury, and W. Denchfield, Easington. Highly praised: T. Latham, Little Wittenham, Abingdon (for sheep management).

THE ANNUAL MEETING.

The annual meeting was held on the show ground on the Tuesday, the Duke of Devonshire, the president, in the chair.

The SECRETARY, Mr. Jenkins, read the report of the Judges of Farms, which stated that the first prize, a silver cup, value £100, offered by James Mason, Esq., ex-High Sheriff of County, for the best cultivated farm around Oxford, had been awarded to Mrs. Mary Elizabeth Millington, of Ash Grove Farm, Ardley, Bicester; the second prize of £50, offered by the Society, to Mr. John Treadwell, of Upper Winchendon; and the judges also highly commended the farm of Mr. Robt. Craddock, of Lyneham, Chipping-Norton, which they recommended should have a third prize. Three other farms they commended, viz, those of Mr. N. Stilgoe and Mr. Z. W. Stilgoe, Adderbury, and Mr. W. Denchfield, Easington Farm, Banbury. The sheep management of Mr. Thomas Latham, of Little Wittenham, Abingdon, was also recorded worthy of the highest praise.

The CHAIRMAN, in presenting the prize to Mrs. Millington's brother, said this was a new feature of the Society, indebted to the liberality of the late High Sheriff.

Lord VERNON proposed a vote of thanks to the Mayor and Corporation of Oxford.

Lord KESTEVEN seconded the resolution, which was passed.

Alderman R. J. SPIERS responded.

Mr. H. S. THOMPSON proposed a vote of thanks to the Local Committee.

Mr. WREN HOSKYN, M.P., seconded the vote of thanks, which was passed.

Colonel KINGSCOTE, M.P., proposed a vote of thanks to the Railway Companies for the arrangements they had made in facilitating the transit of machinery, implements, and live stock.

Mr. J. DRUCE, of Eynsham, seconded the resolution, which was passed.

The CHAIRMAN said this concluded the formal business of the meeting, but it was his duty to ask whether any member wished to address any observations to the Council.

Mr. H. MIDDLETON as an exhibitor of cattle wished to ask who had the responsibility of appointing the judges, and how they were elected? He referred to the class of Channel Islands cattle, for which there were two judges, one being from the Island, and the other a Hereford man. Any one who examined the second prize cow, above three years old, would see the point of the question which he put.

Mr. LE CORNU said that as one of the judges of the Royal Agricultural Society of England, and also a member of the Jersey Agricultural Society, he had done his utmost to do justice to the exhibitors of the stock which he was asked to examine; and he was prepared to give at once the substance of his report on the several classes.

The CHAIRMAN said the appointment of judges rested with the Council, who took all possible pains to have men whom they thought were the best fitted to discharge the duties.

Mr. J. HOWARD, M.P., complained that the arrangement of the Show Yard did not do justice to the exhibitors of implements.

Mr. H. S. THOMPSON and Mr. BRANDRETH GIBBS explained that the Council had studied the interests of the implement exhibitors, and made the best arrangements they possibly could, having regard to the shape of the ground.

A vote of thanks was then passed to the President.

THE NEW FARM.

"More enjoyable if not your own," I murmur inwardly, as I fold up to return a most tempting advertisement of an estate in North Wales, described as a "Virgin Estate," and containing besides some three thousand acres of cultivated land, no end of gorse hills, undeveloped slate, imagined coal-beds, innumerable wild gorges and cascades, just exactly what one enjoys most thoroughly as a tourist in quest of refreshment after dusty, exhaustive work in chambers, but what one wouldn't care to invest in, considering the trouble the development of such varied resources must entail, unless one were in possession of such a glorious "accumulation during minority," as Lothair found himself possessed of when he wavered between building a cathedral and a nest of innumerable cottages. There is a time of life at which one arrives when trouble really does bore. Activity, mental no less than bodily, one reads in disquisitions on the human frame, begins to hang fire at about the period when over-trained athletics break down—that is upon the near side of fifty. Then it is that Horatian maxims influence, and Horatian pursuits absorb—deep-bodied claret—the sound of rippling waters—the glancing, lustrous leaves—the voice of birds—and the consciousness of bills paid, with a juicy baluace left. At this period it is perhaps that the amateur agriculturist is in his bloom. He has by dint of judicious ample expenditure, deep cultivation, minute over-sight, and unwearied persecution of weedlings, brought his land to yield an annually improved solid lump. He can afford to experiment in the way of thin sowing, and has pleasure in recording his experience for the benefit of the agricultural community at large—amongst whom,

as amongst all pupils, there are plenty to doubt his ability and dieta. But away with philosophic reflection, it is too hot for that. To record results: First let me resume the old story of the autumn-planted potatoes. What are above ground appeared much later—as I have always found to be the case—than the spring planted; but, when once up, they rapidly overhauled them in the race, as though they have a stronger propulsive power somewhere, either in their roots finding more moisture from being lower placed, or from the stem's muscles being firmer because of their greater age. About one-seventh have not shown, even yet; but when I stirred the soil with my spud I found lots of white tender shoots working to get clear of their immurement. I have consequently sent a man with a fork to loosen the solidified mould along the line of the invisible. It would have been well if I had run Garrett's horse-hoe over the plot in the early spring, as I fully intended doing, but was over-advised. What a nuisance is advice! It is sure to put a man wrong unless his counsellor be intimately informed of every unknown quantity in the problems, which can rarely be done. But I will not dwell further on the disagreeable, except to say that henceforth I will follow no advice that does not fit in with my own inclination; and unsolicited advice I will throw back in the giver's face. But, as my temper's boiling, I had best proceed with my story and let reflection on the past alone. I have one pool the overflow of which runs on to a ryegrass plot that helps to supply the cart stable, and around which the wild ducks build, out of which it is impossible to shut a certain muck-yard element of stained liquor. On the

bank of this I am fixing a pump, and I propose to give the potatoes a good soaking therefrom by the help of watering cans. It will be a work of time; but, as Sutton wisely prints in his catalogue injunctively to swede-growers, "Without pains no gains." The root which produced in my man's garden over thirteen pounds of potatoes was indulged with one deep drink during the drought. Another plan I am about to adopt in my orchard was suggested in the *Bath and West of England Journal* for 1859, but which I will quote as it may not have fallen in the way of some, while others may have passed it over. An American apple-grower writes: "For several years past I have been experimenting on the apple, having an orchard of 2,000 bearing Newtown pippin trees. I found it very unprofitable to wait for what is termed the 'bearing year,' and it has been my aim to assist nature, so as to enable the trees to bear every year. I have noticed that from the excessive productiveness of this tree it requires the intermediate year to recover itself, to extract from the earth and atmosphere the materials to enable it to produce again. This it is not able to do unassisted by art, while it is loaded with fruit, and the intervening year is lost. If, however, the tree is supplied with proper food it will bear every year, at least such has been the result of my experiments. Three years ago, in April, I scraped all the rough bark from the stems of several thousand trees in my orchard, and washed all the trunks and stems within reach with soft soap, trimmed out all the branches that crossed each other early in June, and painted the wounded part with white lead, to exclude moisture and prevent decay. I then in the latter part of the same month slit the bark by running a sharp-pointed knife from the ground to the first set of limbs, which prevent the tree from becoming bark-bound, and gives the young wood an opportunity of expanding. In July I placed one peck of oyster-shell lime under each tree, and left it piled round the trunk until November, during which time the drought was excessive. In November the lime was dug in thoroughly. The result the following year was 1,700 barrels of choice fruit, besides cider from refuse. In October I manured these trees with stable manure, in which the ammonia had been fixed, and covered this immediately with earth. The succeeding autumn they were literally bending to the ground with the finest fruit I ever saw, while the other trees in my orchard not so treated, were quite barren, the last season having been their bearing season."

Careful treatment of the apple I have myself found to be rewarded. Our best orchard we have dressed the last two years, once with old night-soil, compost, and lime, dug in at the roots, and once with leaf mould, of which the chesnut wood affords us annually a quantity. We have had grand crops both years since, and there is a good show for the coming season: I shall, however, try to lime around the stems. The trees are too old to derive benefit from a splitting of the bark.

Our youngsters have taken to bathing, and as our broad river abounds with rapids I thought it best yesterday to inspect the scene of their enjoyment. I took down the garden syringe to give a drink to the young grass that is springing with a melancholy slowness, where I pared the broken banks. With one end of the gutta-percha pipe immersed in deep water, I worked away until I was quite hot, pumping now lustily, now softly to the amusement of my young geese, who were splashing in a quick current just beyond my range. "Papa's squirting the bank," they cried with delighted ridicule. In faith it taught me one thing, that is, to estimate the value of a good hour's rain. Only to watch the splashing shower absorbed so rapidly by the brown bank without leaving a trace, and considering the weight of my steady exertion I felt more than ever a longing that the brazen heavens would open

and let down a refresher on the parched meadow, to which we look for our winter supply of hay. Whatever the price of this article will be I cannot dare to guess. Certain it is that hereabouts there is no bottom grass, therefore right thankful am I that I put in thirteen acres of autumn oats after wheat, which are now in full ear, and I hope to cut when three-parts ripened in a fortnight, so as to get in mustard quickly, with a strong dose of artificial, the stubble being clean. This will come partly to cut in chaff with wheat straw, partly to consume with sheep. Then, it being my own land, I shall put wheat in again, having faith in Mr. Lawes' doctrine, that every soil has its idiosyncrasy. This particular plot is locally considered "to throw a capital crop of wheat, one of the best about." Why then not meet its inclination? The idea of the several soils in various combination being adapted to special vegetable growths bears on its surface persuasion to my mind. I shall at least try it, not being *tied* to the four-course, or any other system. "Some take coffee, some take tea," is a piece of sedimentary wisdom we owe our ancestors, which should never be lightly regarded, I think. So I shall indulge the land's humour to its utmost bent.

I have had several strangers lately to inspect my plots and their success. They are universally approved, and will be copied in each case. Now that the water-volume is shrunk in the river-course, the heavy, broad, rounded banks of washed-up gravel are clearly discernible, having filled several deep holes to the brim. There was but little damage done by the strong winter floods, excepting to the one that stood somewhat lonely, on a clay bottom, nor has that suffered since I erected a second, at about thirty yards' interval, to relieve the strain at that point, there being thereon, when the torrent is full, a tremendous blow of accumulated billows.

Grand is it to get your hay cut in the early morning. My mæchie was busy at four to-day, and the swathes (light enough, certainly) are already half-withered, while the horses, having finished for the day, are (it is not noon) reposing quietly, after a fill of vetches. Sleeping in the sun with wet stockings on is good for the nether limbs of neither man nor grass.

As I went to inspect the crop last evening, I heard over the hedge a peculiar cry of evidently a nursing mother, somewhat resembling the turkey, somewhat the brown owl. For some time I watched vainly, until suddenly it ceased, she having caught, I fancy, a glimpse of me across the lane. Yet an infantine wailing went on; and on my descending through the gap I found a little nigger of a bird, fresh hatched, which bit my finger resolutely, and covered my hand with oil. I discovered then it was the offspring of a landrail, and, as it would be deserted, took it home to the children, who deposited it amongst some young pheasants newly hatched, in and out of which it runs this morning quite lively, but with a lazy, listening look, such as one might imagine a gipsy-lad would wear if caught, upon the sudden skeddaddle of poaching parents, and introduced by his captor to the mercies of the village dame.

VIGIL.

HOW TO KILL LICE ON CATTLE.—A correspondent in the *Country Gentleman* dissolved about a pint of strong soft soap in a pail of warm, soft water, and saturated the whole of a lousy cow's body with it; after about thirty minutes, repeated the operation; and in thirty minutes longer took a pail of clean, warm water, and quickly and thoroughly washed out all the soap-water and dead lice in large quantities, put her in a warm stable, and covered her with a dry blanket. The next day, after being thoroughly dried, she looked, and seemed to feel, like a new animal, more than doubled her milk within twenty-four hours, and immediately commenced gaining flesh and general thriftiness.

OUR BRITISH FRUITS.

THE NATIVE WILD RASPBERRY.

Some years ago I was at considerable pains to show what could be done with strawberries where an acre or two of stiff clay land could be got and a little cheap labour, such as that of old men and boys, with the assistance of women in summer time to gather the fruit, and I was very much pleased to see the scheme well carried out in some parts of Denbighshire, on the borders of Cheshire, where the large towns with their railway transit secure a ready market for such goods. I am sorry, however, to see that the strawberry literature still lags behind the spirit of the age; for I find in some periodicals, where better things might be expected, the scheme advocated of growing the plants for several years—whereas the whole of the crop should be from a fresh plantation every year. The plants should be treated as biennials, the runners prepared so as to be well rooted early, and have at least July, August, and September in the fresh ground, the effect of which will be fine plump crowns and strong blossoms, and in due time high-class fruit; and whilst one advocates cutting off the runners to strengthen the plants, and another mows off the leaves for some imaginary good, all this labour is saved by trenching down the whole of the strawberry lines, leaf and runner, and thus effectually clean the land for some other crop. But to return to the raspberry. This truly British plant belongs to the rose family, and the veriest briar twig is not half so beset with prickles as the cane of the wild raspberry. Now the raspberry is a shrub, but much in the same way that the elder is a shrub or small tree, for they are both as nearly herbaceous in their characters as they could well be, so as not to be entirely so; for the raspberry canes shoot up their whole length one year, bear fruit the next, and then die down to the collar, so that when a new plantation is made there is this oddity about it, that you may get a crop of fruit from it the first year but none the second, hence it is necessary in raspberry growing to secure plenty of young canes every year to be the fruit-bearers in the following year. The raspberry is not at all improved by transplanting, and dislikes all digging, forking, or other interference with its underground system; for it employs its own travellers and sends out its suckers into fresh pasture every year; mulching or liquid manuring of course must be provided to meet the heavy strain upon land bearing such a weight of wood, leaves, and fruit. But instead of going all over the details of raspberry culture, their distance from row to row and from plant to plant in the row, and stating the various methods that raspberry canes have been tied—to rails, ropes, rods of iron, and one cane tied to another for support, in order to give the suckers room to grow as well as the fruiting canes, all this the familiarity of the subject renders unnecessary. I will give two notable examples, one of the finest canes and finest fruit I ever saw produced by any gardener under any circumstances, and the medium in which they grew, and another of the wild raspberry, in a hedge-bank, itself forming the best part of the hedge, where the fruit, though small as compared with the cultivated sorts, was high-flavoured; and here let me remark that we have scarcely any fruit, whether native or foreign, of higher flavour than well-ripened wild raspberries. Near Torquay, in Devonshire, stand the ruins of a religious house called Tor Abbey, partly inhabited as the family residence of the Cary

family, and partly in ruins. The tithe barns still standing bear testimony to the extent of the Abbey; but among other changes that had come over the place, one could not be mistaken in identifying the place of burial, for in that consecrated spot, among the forgotten dead, there were here and there carvings marking the graves of men of note, with stone coffins not a few, and other articles peculiar to places of sepulture. This grave-yard had long been used as a kitchen garden; and the soil in the lower part seemed a sandy black mould, of unknown depth. In this particular locality, and elbowing the stone coffins and carvings above-named, there grew one long row of raspberry-canes. These were in height like fishing-rods, and as thick as an ordinary walking-stick. They did not appear to have been disturbed for several years, and were not likely to be so for some time to come, since all ideas of improving their condition were quite out of the question, as they yielded annually a heavy crop of high-class fruit, and plenty of runners to form fresh plantations. Whoever, therefore, would excel in raspberry-culture, must bear in mind that, although the suckers or runners necessarily live just under the surface of the soil, the real feeders of the plant, its proper roots, penetrate after food to a great depth, and are glutinous fowl feeders; indeed, raspberry-canes seldom, if ever, get enough of manure, for it should be deep in the earth, out of the way of drought and changes as well as near the surface; and this is the practical lesson to be got from the Tor Abbey canes, for it will be at a very great depth that we should now find the mortal remains of that once important community where loving hands had laid them with pious prayers, and more or less of cremonial. With a fine south-western climate, and the locality only a few feet above the sea level, and sheltered by tall trees, everything was in favour of growing fine fruit, but the prime mover was the charnel house of the ancient community, and the plants moored in that medium might well send up shoots that seemed like giants rising from their graves.

But our immediate business is not so much with the cultivated raspberry as with the wild one, and the finest example of an artificial plantation of these that has come under my observation I will now endeavour to relate: An English nobleman* who had begun life as a baronet some four score years ago had a field very near his residence, and this field had been nick-named the "*Hodge Field*," from the fact that it had given employment, nearly constant, to a small gang of labourers during his lordship's very long life-time, for his lordship had vowed very early in life that the "*Hodge Field*" should be drained and levelled regardless of expense. Now this field was only a gusset of land of some three or four acres in extent, and when the adjoining fields had been enclosed this had been left by itself, on account of a dangerous swamp into which cattle and horses at various times had sunk; and you might hear in confidence from some aged crone, that at some remote time human life had been sacrificed in this dangerous bog-hole, in proof of which it was stated that at long intervals the ghost of

* He has been dead many years ago, and his talented son succeeded to the title and estates, and died lately, so that this is no personal affair now. We speak of the character of kings after the death of their successors, and so of other men.

the deceased, whose body had not received Christian burial, visited the "Hodge Field," and the dull lines of yew hedges in the adjoining garden. I do not vouch for this digression, but "tell the tale as it was told to me." The plan for improving the Hodge Field had been duly settled as I said before by the baronet early in life, and certainly it was a magnificent idea; the chief features of the plan consisted in cutting a great ditch along its lower side of such breadth and depth as to give plenty of materials to fill up all inequalities on the surface, and also to secure a plentiful outfall for the drains. But the bog when cut into presented engineering difficulties of no ordinary kind, a shifting sand being one completely barring all drainage, and this was accompanied with a layer of very soft black peat, and when the soil had been flung on the bank from the drains it was nothing unusual to find the bank give way and choke the drain, and as the general soil of the field was a sandy loam the walls of the drains invariably fell in just at the water line, so that the wounds of the Hodge Field once opened had to be kept running in open ditches for many a year. Now, although his lordship never succeeded in draining the Hodge Field, he did succeed in making such a bank of wild raspberries as I fear I shall never see again. The perverseness of the elements in this simple affair may be seen from the fact that when water was wanted in summer there was never any in the Hodge Field, but when water was abundant this ditch was always flooded, yielding besides water a heavy layer of mud and sand. This is not to be wondered at, since no outfall had been provided; but when the ditch was dry the hedge bank was made good with a layer of mud, plastering up all inequalities, and giving an air of high finish to the raspberry hedge, that bristled out all over the steep sloping bank. By capillary attraction this hedge got any amount of moisture it might require without being stagnated, and as it faced the north, and was fortified against in-

trusion by a deep ditch in front; it had all that raspberry plant could desire, and on its part it yielded such a thicket of prickly canes, every cane being armed with thousands of sharp-pointed prickles, as secured its character for being a trustworthy hedge plant. In the shady woodland we find the wild rose, the bramble, and the raspberry enjoying the layer of fine-leaf mould, and the calm shelter of the trees overhead, and the moderate degree of shade is evidently beneficial to these three sisters of the rose family.

Plants that will thrive in the shade are especially important, and fruit-bearing ones are sure to be duly appreciated when once they are understood; surely there is no want of shady banks of earth where rich mud could be got, and a quantity of wild-raspberry plants laid on them, and kept there by a layer of earthy puddle or mortar, made of manure and earth. If a fence has to be maintained, try one of raspberries, for it has prickles like any other hedge plant, and has, moreover, fruit which no other ordinary hedge plant possesseth, for the tart bitter berries of the hawthorn would be a sorry substitute for the highly fragrant and delicious raspberry. Young amateurs find that there are a great many difficulties in the way of growing fruit. Always beginning at the top of the ladder instead of at the bottom, they try to grow exotics: one will grow early cucumbers whether or not, no matter how useless they may be, even should he succeed. Another strikes out boldly for melons, and a third struggles with apricots and peaches, all delicate, and all liable to be devoured by insects and all slippery customers, easily mismanaged; but had the beginner tried his hand first on our native fruits, on plants that could take care of themselves, such as the raspberry, the strawberry, and the plum, he would have been encouraged by his success, and would have gained experience to go on to the cultivation of greater things.

Salford,

ALEX. FORSYTH.

THE AVERAGE PRICE OF BRITISH CORN, AS AFFECTING THE TITHE RENT CHARGE.

At the last meeting of the Newbury Farmers' Club, Mr. TANNER read a paper, in which he said: This subject naturally divides itself into two questions, viz.: What is tithe rent charge? and, How that rent charge is affected by the mode in which the averages of British corn are arrived at? 1st. What is tithe rent charge? It is, as we all know, a charge on land in lieu of tithes. Then we naturally ask another question—What are tithes? I shall, with your permission, make a few remarks on tithes, as distinct from tithe rent charge, as preliminary to the subject, that of corn averages, which is more immediately before us to-day. What are tithes? I am indebted to the authors of the *Encyclopædia* published by the Society for Diffusing Useful Knowledge for much of my information. The description of tithes there given is this: "Tithes are the tenth part of the increase yearly arising and renewing from the profits of land, the stock upon land, and the personal industry of the inhabitants; and are offerings payable to the Church by law." Now, as to the origin of tithes. The first mention of tithes we find in the best of books, the Bible, and, whatever infidels or scoffers may say to the contrary, I fearlessly assert that it is the very best authority we can have on all subjects, whether for the government of a country, or for the regulation of our own conduct as individuals. Under the theocratic government of the Jews, the tenth part of the yearly increase of their goods was due to the priests by divine right. In the early ages of the Christian church, payments were enjoined by decrees of the church, and sanctioned by general usage. In England, the first instance of a law for the offering of tithes was that of Offa, King of Mercia, towards the end of the eighth century. He first gave

the church a civil right in tithes, and enabled the clergy to recover them as their legal due. This law was afterwards extended to the whole of England. At that time, although every man was obliged to pay tithes, the particular church or monastery to which they should be paid appears to have been optional. In the year 1200, Pope Innocent III. directed a decretal epistle to the Archbishop of Canterbury, in which he enjoined the payment of tithes to the "parsons" of the respective parishes in which such tithes arose. A work by Watson on tithes informs us that tithes were of three kinds—prædial, mixed, personal. Such as arise from the earth or the produce of the land, grain of all sorts, fruit, and herbs were called prædial, so called because a piece of land in the canon law was called Prædium. Things nourished by the earth, as colts, calves, pigs, lambs, chickens, cheese, and eggs were called mixed tithes. Personal tithes were paid from the profits arising from the labour and industry of men engaged in trade or other occupations, being the tenth part of the clear gain after deducting all charges. Tithes were again divided into two kinds—the great or rectorial tithe, the small or vicarial tithe. The mode of collecting tithes in kind, as adopted for many years (though scarcely in the recollection of many of the farmers of the present day), was a fruitful source of irritation, and constantly disputes arose between the clergyman and his parishioners. Dr. Paley, in his "Moral and Political Economy," chapter 12, says, "No measure of such extensive concern appears to me so practical, nor any single alteration so beneficial as the conversion of tithes into corn rent." This principle of commutation was first proposed to be applied by the legislature to Ireland. The Act of Parliament for the Commutation of Tithes in England

and Wales, is the 6th and 7th Wm. IV., dated 13th April, 1836, and which has been generally carried out. There can be no doubt that on the whole, the substitution of a rent charge in lieu of tithes has been a most beneficial change, and the fact that the general average for the last 34 years for £100 apportionment amounts to £100 19s. 5d., speaks for itself. The basis for that apportionment was—

Wheat	7s. 0½d. per bushel	56s. 2d. per qr.
Barley	3s. 11½d. per bushel	31s. 8d. per qr.
Oats	2s. 9d. per bushel	22s. 0d. per qr.

If that was a fair basis under the law of Protection, is it so under Free Trade in Corn? I think not. I think it operates against the interest of those who have to pay the rent charge. At that time £100 represented—

		Average for
		Dec. 1869.
Wheat	283 bushels	320 less.
Barley	512 bushels	442 70
Oats	720 bushels	640 80

You will thus see that while wheat has decreased, barley and oats are increased in price. I now come to that part of my subject more immediately before us to-day, viz., the mode of taking the Averages of British Corn. In obedience to the Act before mentioned for the Commutation of Tithes, the Comptroller of Corn Returns is required to give, on the 1st of January in every year, the price of a bushel of wheat, a bushel of barley, and a bushel of oats, computed from the weekly average of the Corn Returns during the seven preceding years. A rent charge is of the value of a certain number of bushels of corn—that is to say, one-third wheat, one-third barley, and one-third oats. Supposing a rent charge to be worth £300 per annum, the average price of wheat being 10s. per bushel, barley 5s., oats 2s. 6d. per bushel, the £300 would then represent 200 bushels of wheat, 400 bushels of barley, and 800 bushels of oats. Thus we see the great importance that the average price of British corn should be obtained with as much correctness as possible, both for the calculation of the rent charge and corn rents regulated by the same. The Act of Victoria, sec. 2, cap. 14, passed on the 29th of April, 1842, entitled "An Act to amend the Laws for the Importation of Corn," contains a schedule of the towns from which returns were made for ascertaining the averages to regulate the duty on corn; the same returns have been adopted for the tithe rent charge. This schedule contains the names of 273 market towns taken from the 40 counties of England, and 17 Welsh towns, making the total number 290 from which returns were made. That Act was partially repealed on the 29th of July, 1864, so far as that 140 towns and 4 counties were struck out of the schedule altogether, and also 11 of the Welsh towns. I think you will agree with me, that districts growing secondary qualities of corn are not represented, while other districts growing the best qualities are represented. [Mr. Tanner then entered into statistics, reciting the schedule of towns for making corn returns, as shown in the two Acts of Parliament.] He continued: If it is necessary to have a larger number of towns to get an average to regulate the duty on corn, surely it must be equally so for the tithe rent charge. Here, then, we have a most important Act of Parliament, affecting the averages of British corn passed, of which those who are most concerned know very little about. I think I am correct in saying so, because I have found but few men either buyers or sellers that know or are able to give me any information on the subject. At first sight it may not appear likely to affect the question, but when you consider the fact that one half of the towns, or nearly so, are now struck out of the schedule, is it likely that so correct an average can be obtained? I consider the larger the number of returns the better provided they fairly represent the district from whence they come. Every corner of the kingdom where corn is grown should be represented. The towns now left out ought to show the same average as those from which returns are made; but to get these would be an undertaking much too gigantic and expensive for a private individual, but which ought to have been done before those towns were excluded, and may have been obtained for aught I know to the contrary; but the chances I think are against it. I have taken the average from the Reading paper for eleven towns in our immediate neighbourhood, but I do not place much reliance on their correctness,

Schedule of eleven towns, from Reading paper, for the year ending December, 1869.

	Wheat.	Barley.	Oats.
Abingdon	48.8	39.5½	29.4½
Alton	49.3	34.6½	32.0½
Honey	50.8	39.10½	25.5½
Hungerford.....	47.4	37.2	27.5
Newbury.....	47.1½	36.1	27.9½
Oxford.....	46.10	30.3	26.6
Wallingford.....	47.2	34.1	26.9
Reading.....	50.7½	35.10½	27.1½
Basingstoke ...	47.9½	36.6½	27.3
Didcot.....	49.1	37.6	29.0
Wantage.....	50.5½	38.5½	26.10
	<hr/>	<hr/>	<hr/>
	48.6	36.5	26.10
	<hr/>	<hr/>	<hr/>
Willich	48.2	39.5¼	26.0
		<hr/>	<hr/>
		29.¼	

There are eight counties, and some of the large ones only represented by one market town. I think you will agree with me, that one town in any large county cannot give a fair average, because as many of us know to our cost that at times one district of a county suffers from drought or blight, or wet, while the other parts of the county are less so, or do not suffer at all perhaps. It often happens the wheat is blighted, the barley is thin, or the oats light in one part of the county and not elsewhere, particularly in wet and cold seasons. Take, for instance, our own county of Berks. Can it be right that Reading, which shows the highest averages in the list to which I have alluded to just now, and Windsor, the district for white wheat, of a good quality, should be chosen to represent the county, while Newbury and Wantage the large red wheat markets of wheat of secondary qualities should be unrepresented? Take Surrey—That is represented by Guildford, while Croydon, Kingston, and Dorking are left out.

Mr. Tanner then read the following letters he had received on the subject:

DEAR SIR,—I am surprised to find that Guildford is the only town in Surrey that sends a return of the corn sold in the market. To my mind it is clear that the county is prejudiced thereby as regards the averages, for I take it that Guildford market is about the highest of any in the county, and it is notorious for having brought to it some of the heaviest and best wheat.

Croydon, May, 1870.

Yours very truly,

ROBT. FULLER.

Wiltshire again, represented by Warminster only, leaving out Swindon, Salisbury, Devizes, and others.

My dear Sir,—I think the Warminster market a low average for wheat for the county. That I am of opinion that it is very high for barley and oats. I thought I could have sent you the average for the last six months from Michaelmas to Lady Day, but I believe the wheat was £2 ls. 11d., barley about 38s., and oats 21s. 6d. I know this is near what was sent me, and if of any service to you, you are kindly welcome to it.

I am, my dear Sir, yours faithfully,

W. FERRIS.

Manor House, Milton, Pewsey, Wilts, May 18, 1870.

Hampshire,—now we find that from some cause or other only one town was crossed off the schedule: that of Christchurch, and is represented by nine towns (I do not complain of that being too many), but if necessary for Hampshire why not for other counties? I have a letter which will give a specimen of one of the markets (that of Havant), from which a return is made:

"In reply to your questions about Havant market I have to inform you that I have seen my neighbour Mr. Gibbons. He says there is no market at all. Mr. Gibbons says he has been here 12 years, and he has never sold a sample of corn or heard of one being sold at Havant market. I think I have seen a notice about corn averages, but it must be all a farce, if there is nothing sold. Chichester and Fareham are the markets for this neighbourhood." I think this shows that the subject has not received that attention from headquarters that it ought to have. Why should four counties be left out altogether? Rutland, it is true, has a very small area. Well then, take Hereford and compare it with Westmoreland, the area of the two counties being nearly

the same. By the statistics taken from the Agricultural Returns of Great Britain (which, by the bye, I do not consider at all a good authority, but may give some approximate return sufficient for this purpose.) These statistics show that Hereford has 178,405 acres of land under corn, green crops, &c., not including permanent grass, such as meadows. This county is not represented at all, while Westmoreland, having only 50,686, is represented by two market towns. Durham, famous for coal and mustard, quite a coal district, has five selected towns; while Hertfordshire, Middlesex, and Surrey, the three counties together with a much larger area and much more of a corn-growing district, have only the same number among them, viz., Hertfordshire 2, Middlesex 2, Surrey 1. Shropshire shows 300,000 acres under corn and green crops (omitted altogether), Staffordshire 216,270 ditto, and yet Westmoreland, with only 50,000, is represented by two markets, and the area of Staffordshire and Shropshire, being nearly four times as much, not represented at all; yet Shrewsbury, Stafford, and Wolverhampton are very important markets, I know personally. Take some of the eastern counties, about the same area, and compare with some of the southern counties:

Norfolk	12	Somerset.....	4
Suffolk	9	Gloucester	4
Cambridge	3	Dorset.....	1
Huntingdon	2	Wilts	1
Bedford	1	Hants	9
Hertford	2	Berks	2
Middlesex	2	Oxford	1
Essex	3	Bucks	1
Surrey.....	1		

35 23

I may be asked what has all this to do with the Corn Averages? Simply this—Take the counties I have just mentioned, the eastern counties as a rule grow the finest barley, and some of the finest corn generally. Now, if these counties send in 35 returns against 23 in those counties where the corn generally is of an inferior character, the result is obvious. The present mode of taking averages I think tells more on the average prices of barley than either of the other sorts of grain, which averages, as I mentioned before, have increased, while wheat has gone back, and though we know barley has taken a high price for the last year or two, I do not think many of us have made an average equal to the average shown in Willich's tables for the year ending December, 1869, viz., 39s. 5d. per quarter. There is no doubt that farmers using, as they do generally, all their tilling corn, both of barley and oats (more so I think than wheat) all has its effect on the average. From these facts we have a strong argument in support of Farmers' Clubs and Chambers of Agriculture. I venture to assert that one half of the farmers of this country do not know anything about this short Act of Parliament of the 29th of July, 1864, and which I cannot help thinking very seriously affects the average of British corn. I further venture to assert that that Act would never have become the law if Farmers' Clubs and Agricultural Chambers had excited as much interest as at the present time—and why was it passed? To save a little expense *alias* trouble. The preamble of the Act runs thus: "Whereas, with a view to a diminution of the expense occasioned by the publication of accounts and averages; and incurred in the performance of the duties of the office of Comptroller of Corn returns, it is expedient that the provisions of the said Act (the Act of 1842) be altered in some particulars." Then, as here stated, it was a simple Act of economy. I think you will agree with me when I say, I think this a very legitimate way of spending public money, for what can be of much more importance to a large class of tax-payers than that every trouble should be taken and every reasonable expense incurred to obtain a correct average price of British corn? on which depends the working of this great measure—ascertaining the rent charge payable every year for the whole kingdom. You will now ask me What remedy do you propose? First.—I should say let all the counties in England and Wales be properly represented. If they are so already, the Comptroller of Corn Returns must be in possession of statistics to prove it, and if so, let our Members be respectfully requested to move for such returns to be made. Secondly.—That the sellers should make returns as well as the buyers. Why are not the sellers in the country to be trusted to do as

they do in London; there, it is the seller and not the buyer. Agricultural statistics are collected with great expense, and not very satisfactory after all. Why cannot the same machinery be used—say once a quarter let every farmer return the corn he has sold, and to whom, and the quantity of tilling corn used, and let the price be put on that, after a certain rate, 10s. below the best, or any sum that be thought right. The number of market returns need not, I think, be even so numerous as now, only with more apparent regard to the corn-growing districts, and the area—I say apparent because in looking over the list of markets I think it must strike everyone that some districts are not properly represented. I would also inflict a heavy fine, or even imprisonment, on any party who refused to make a proper return, or for making an unjust return. It has often been remarked that seven years is too long a time over which to throw the average for the rent-charge. There are some cases in which it operates harshly. Take, for instance, a man with a farm on a short lease. At the end of his lease it does so happen that sometimes he has to pay for several years a high rent-charge while taking a low price for his produce. His successor, perhaps, pays a low rent-charge, and in the meantime getting a much higher price for his produce. I think myself three years would be better, or perhaps best of all to take it annually. Some say, why not make the tithe apportionment a fixed charge? but that could not be fairly done until the annual rent-charge and the apportionment should be equal, and then if that good time, of which we have often heard as "coming" for some years past, should come, the owner of the rent-charge would not participate in it. I do not wish by any means to impute that the corn averages are otherwise than fairly taken; but with these facts before us, I do not think it unreasonable to suppose that some improvement might be made, both in the area and the present mode of obtaining the average price of British corn.

Mr. Tanner then read the following letter from the Rev. C. W. Everett, of Woolhampton: "In my paper on 'The Agricultural Interest,' which I read last year to the Club, I made these remarks on the Tithe Rent Charge—'The tithe rent charge is another impost which is usually paid by the tenant for the landlord. If this was a fixed charge, or if the tenant received back, when he paid his rent, the sum he had disbursed for tithe, it would not much matter (as between the owner and occupier of land) by whom it was paid. But as this charge, on an average of seven years, varies very considerably in amount, it may happen that an incoming tenant has to pay a high rent charge at a time when the market price of his produce is low. I have no hesitation in saying, as a tithe owner, that I should be very glad to see the annual tithe rent charge stand at its commuted value. The experience of thirty-four years has shown that, in the long run, the commuted value is very nearly a correct one; and I believe that it would willingly be adopted by the larger part of those who have to pay. I should, with pleasure, join in any move to induce the Legislature to sanction this amendment of the law.' By taking the commuted value as the fixed annual value, you would also get rid of any question as to whether the averages are now taken fairly or otherwise. In fixing the commuted value, the rule was this—for making a compulsory award the Tithe Commissioners were to ascertain the clear average value (after making all deductions on account of the expense of collecting, preparing for sale, and marketing, where such tithes had been taken in kind) of the tithes of the parish according to the averages of seven years preceding Christmas, 1835. As this was acquiesced in at the time as an equitable rule, and as the act was passed to satisfy the tithe payers, not the tithe owners, it would scarcely be just to make any objection to it at this late period. Where the tithes had been compounded for during the seven years ending at Christmas, 1835, the composition was to be taken at the clear value of the tithes, and this also seems fair, as it was binding parties to an agreement made for their mutual benefit, and voluntarily made. If in any case the tithes had been compounded for, on the principle of the composition being paid free from rates, the Commissioners had power to make such addition on that account as should be an equivalent; because the tithes were to be commuted (under the Act) as being subject to rates. You have now the full benefit of anything I might have said to-morrow.

"Believe me, yours truly,
"C. W. EVERETT."

DAIRY FARMING.

At the last monthly meeting of the Whitby Chamber of Agriculture, Mr. J. G. W. Farsydc in the chair,

Mr. KERR, jun., said the dairy occupied a most important position in the agricultural industry of this country, many large districts being peculiarly adapted and almost entirely adopted to dairy farming, whilst it formed an integral part of almost every farm in the kingdom. To the small farmer of limited means the dairy offered many inducements and advantages. The capital employed in agriculture was for the most part locked up for some considerable time, but the small portion which was invested in dairy stock brought an immediate return, and from this source money came in conveniently to meet household and other expenses. The first consideration in establishing a dairy must be the class of land and the quantity and quality of the animals it was calculated to carry. It was advisable to have them rather under than over the capabilities of the soil. In the former case, the animals would improve and the land have a better chance. This would apply to all breeds of animals, and its recognition in purchasing breeding stock would not fail to bring about a successful result. A man having a large capital might purchase a large-framed animal, and endeavour to bring his land up in condition to be able to feed it; but whatever the outlay might be, he could not so easily alter the character of the soil in a short time. In fact, some men would never be able to keep such animals with advantage. It was, therefore, important to keep the land and the stock in about the same ratio in improving condition. If the dairy was to be the principal source of profit on the farm, then, apart from every other consideration, the breed of the stock ought to be selected for its large milk-giving capacity. On the other hand, when milk, butter, and cheese were only a consideration in conjunction with the breeding and rearing of cattle as a source of profit, then a more valuable breed would be desirable—one which would reach maturity at an early age, so that in whatever condition it was sold off it would bring remunerative prices. For their quantity of milk, for keeping in good condition in such a country as this, he thought the Ayrshire breed could not be excelled, though they were little known or appreciated in this part of the country. The breed was characterised by hardness of constitution, the cows keeping themselves in good condition, whilst giving a large quantity of milk in proportion to the food they consumed. There was a great objection to keeping large-framed cattle on light land, as must be seen, and the loss was little more than covered by the whole season's produce. The Ayrshire cows had a compact frame, and were easily kept up, and at the close of the season they would invariably find the cows in good condition. He believed they could not try a better cross than one between a pure Shorthorn bull and a pure Ayrshire cow. A stock thus brought up would be very valuable, inheriting, as it would, the large milking capabilities of the one and the fattening qualities of the other. In every case where the object was two-fold, the stock should be sufficiently well-bred to be fattened and cleared off in two years, so that the permanent stock of milkers might be as little interfered with as possible. Pure breeding tended largely to economise food, and the quality of arriving at early maturity materially hastened a return of capital. A well-bred bullock would bring as much at two years old as another would a year later if its parents were coarser bred. The possession of well-bred animals afforded a certain amount of honour and pleasure. Nothing could be more unsatisfactory than putting good food into a bad skin, and no amount of care could make up for a want of breed. If the animals had to be kept as store, they were always remunerative in proportion to their quality. At some dairy farms very good results were obtained by rearing only the heifer calves, keeping them till after the second calving, and disposing of them towards their third calving time, when they could generally be sold for high prices. By adopting this plan the produce of the dairy might be lessened to some extent, but, on the other hand, there were never any old cows to be weeded out, which must be sold for less value, and thus make a great inroad on the profits of the

season. Besides, the milk of the aged cows was not so pure in quality, and therefore not so productive, as that of younger cows, whilst taking into account the greater amount of food they required, a consideration which could not be overlooked, there was an inducement to part as quickly as possible. They should seek to get a good name for turning out thriving animals, and good specimens of their respective breeds, in order to insure success. It was of the greatest consequence that no pains should be spared to procure purely-bred bulls. No cross-bred animals, no matter on what pretence, should be used for breeding purposes. However hardy the constitution, or however good-looking, the stock would go down. A most inestimable boon had been conferred on farmers by those gentlemen who, with most untiring perseverance, devoted their time and capital to the selection and improvement of different breeds of cattle, and especially in Shorthorns. Such praiseworthy examples were by no means scarce in any part of the country, and many had now the good sense neither to pamper or over-feed their animals, but turned them out in good breeding condition, such as they might be expected to be kept in by those who purchased them. At the present time, it was an easy matter to procure Shorthorn bulls of good quality at prices within the reach of men of moderate means. The extra price of such an animal now was not worth consideration, as it would very soon be covered by the improvement of the young stock, and by the time they were two years old the bull might be considered out of debt, and his influence for good would be felt for a long time afterwards. He was afraid that some people were too impatient of results on this point, because they did not see the full benefit of their outlay all at once, and would go on from year to year using the best animals they or their next neighbour happened to possess. It must be admitted that the success accompanying the breeding of good cattle under proper management would be much greater than the breeding of inferior stock. It was of great importance to the farmer owning a number of cows that his success in rearing calves should be as great as possible. Every calf lost was of great consequence. Not only had their places to be supplied, but he would find it impossible to replace them with animals of the same stamp as his own. The greatest care, therefore, should be taken during the time of gestation, and all cases of premature birth should be avoided as much as possible. All doorways should be made roomy enough to prevent crushing, and instead of the rough usage sometimes administered there should be kind and gentle treatment, and anything conducive to the comfort of the animal ought to be studied. He felt sure that only a person of very narrow mind could regard these directions as unnecessary to the remunerative working of his dairy. Parturition in the cow might be attended with difficulty and required judicious action, and ought to be well understood. It was most disgusting to see the way in which cows were treated sometimes under these circumstances. Main force was exercised, and the result of such treatment was often the death of the cow from inflammation and its consequences. Every man would agree that this conduct was cruel. A cow ought to be left to herself and kept as quiet as possible, except under extraordinary circumstances, and then only such force used as was consistent with the case. Then, a calf should never be allowed to suck its dam when she was intended for milking purposes, as there was a difficulty in teaching it to drink afterwards, and the mother having taken kindly to her offspring, refused to let her milk down when it was taken away. The calf should be fed frequently with its mother's milk, in small quantities at first, and in order to give it a fair start in life, it ought to feed on new milk for three weeks, or longer if delicate. Then oil cake gruel, sliced turnips, and a little hay should be given in sufficient quantity, according to the age of the animal. It would thus be kept in a growing and thriving condition. It was a well-known fact that quarter-ill, a disease so prevalent and fatal amongst young cattle, was less frequent where they were liberally fed on cake. No greater mistake could be made than to allow young animals to go back in condition. Wherever such was the case, and

they became stunted in their growth, they could never fairly recover the effects of it. During the first month, it would be found a safe plan to give three doses of castor oil, which might prevent many of the ailments to which the young animals were subject. Each calf ought, if possible, to have a separate compartment, and be left at liberty. They would do much better in this way than if tied up by the neck. If they could not find a separate compartment for each, they should put three or four in a loose box or comfortable shed, where they could be easily fed, and with a rack or manger for their use. The better they fed a cow the better her produce would be, and the greater the profit. Yet how many owners of dairy stock acted as if it were of little importance whether the food was up to the mark, either in quantity or quality! Such treatment was just the reverse of the teachings of reason and common sense. No animal was more grateful, and gave a more liberal return for liberal treatment. Without good food, a cow, however good her milking qualities might be, would not continue long in full profit. During the summer months, the pasture was their principal dependence, and on good land nothing else was required, but much harm was done by allowing cows to remain in the fields far into the autumn while in a milking condition. During cold and wet nights they could only seek out the best shelter the hedges would allow and there lie down, whereas a small quantity of food in the house would be as good as what they could get out of doors, and they would be kept warm and comfortable. If they lost flesh in the winter it was not easily made up again; besides, at that season butter was scarce and prices were rising, and so it paid to give both food and shelter to keep up the supply of milk. The quality of the food and the regularity of giving were most important and essential matters. There was a striking difference between the milk and cream of cows fed on hay and straw and the milk and cream of those fed on cake or meal in addition, the former being comparatively thin and poor, while the latter was thick and rich. Not only was the produce of the dairy increased by cake, but the manure made was of very superior quality. This was a fact of great importance. It could not be expected that pastures would continue to yield the same quality of milk, butter, and cheese unless some return was made to keep up their fertility. Many of the large dairy farms of Cheshire had been allowed to get into such an exhausted condition that the farmers had to resort to crushed bones, and apply them at the rate of seven cwt. and eight cwt. to the acre. The construction and careful management of the dairy demanded serious attention. If this was neglected, it was in vain that good cows and good food were provided. There were many dairies in which no expense had been spared to render them perfect, but these were principally on the home farms of gentlemen. With the ordinary farmer the case was very different. The dairy ought to have a north or north-west aspect, and away from the vicinity of manure refuse or other sources of offensive smells, which were almost inimical to dairy produce. The floor should be laid with cement or tiles, to prevent damp. They knew in how many cases the dairy was the contrary of all this. With regard to the utensils, he had not much to remark, and he doubted much whether the leaden cooler could be surpassed, except by glass. There were a great many new inventions in the way of churns, many of which cost a lot of money, and were, at the same time comparatively useless. The barrel churns, in simplicity, were scarcely to be surpassed. In making butter, the great desiderata were cleanliness, good ventilation, and the presence of pure air. The improvement in the art of cheese-making, especially in the large dairy districts, had been very great; but it could not be denied that the making of cheese was still in an imperfect state, and it was therefore desirous that men of patient research should apply themselves to this subject. It was well known that many individuals in this district had attained a high standard of perfection in this art, but many were still far behind. He believed that cheese-making was no exception to the rule which applied to other branches of agricultural industry—that science might yet do much to improve it and materially add to the practical results.

The CHAIRMAN said, with reference to the Ayrshire cattle, they were a fine breed, but there were very few of them in this district.

In reply to the Chairman, Mr. KERR, jun., said an Ayrshire heifer, in calf, could be bought for £14 or £16. They were larger than Alderneys.

Mr. PEARSON said he had had some experience with Ayrshire cows, and had been in Ayrshire, where they were kept in great numbers. He had been on two farms—one where 130 and another where 100 of these cows were kept. When the cows came in to be milked, a girl was expected to milk ten in an hour, and as soon as the cows were taken out the manure was all washed away, and there was no more smell in the cow-house than there was in that room. He believed the Ayrshire cows were better than Shorthorns for giving milk, and he thought a cross between them and the Shorthorns would be the best breed we could have for this part of the country. The Ayrshire cows were very pretty animals, but Ayrshire farmers would not sell them their best animals; still, any man who had a mind to go into Scotland would be able to get a good animal if he was willing to give the price. He had gone there to buy some tups to improve his breed of sheep. The Ayrshire land was not good pasture land, and not so good as in this part of England.

Mr. HARRISON wished to know if Mr. KERR could tell them what was the average quantity of milk an Ayrshire cow would give during the season.

Mr. KERR said he could not answer the question. He considered the Ayrshire breed to be superior, however, to the Shorthorns for dairy purposes, especially on light soils and indifferent pastures.

Mr. HARRISON said the pure-bred Shorthorns were not kept for their milking qualities, but their fine points and feeding qualities. There was a class of animal that had some relation to them called the Yorkshire cow, which was a strong hardy animal, and gave a good quantity of milk and butter, and was as well a good feeding animal; and when not kept too long was very profitable indeed. The two-year-old stores were sold at from £10 to £12 each. He had had some crosses from the Ayrshire breed, but he never considered they were equal to the Yorkshire cow, and never gave the quantity of milk.

The CHAIRMAN was afraid that the Yorkshire breed had been so crossed that it would be difficult to get a pure-bred one now.

Mr. HARRISON: They have been crossed to improve their fattening qualities.

Mr. PEARSON said, in reference to the calves, that he gave them cake as soon as he could get them to eat it. He gave them, in addition, some cold water or turnips. After the new milk he gave them a little old, and then the cake. He never gave them any gruel whatever, and he generally sold his heifers at a year and a-half old for £9 each. He sold the last for that at Malton, and the market was not good, on account of the condition of the grass.

Mr. ELLIOTT said where there was a scarcity of milk for the calves there was, do doubt, nothing like cake.

Mr. PEARSON said that when he gave £12 a ton for cake he expected £5 out of it in his cattle, and the rest went to his land.

Mr. HARRISON said it must be pure cake.

Mr. ELLIOTT could see the profit out of his calves when fed on oilcake clearer than anything else. They would eat it from the time they were a fortnight or three weeks old. He would never feed a calf for the butcher.

Mr. WIMPRA said he had lately sold two two-year-olds of the Yorkshire breed, crossed by Shorthorns, for £27.

The CHAIRMAN said, with reference to the making of cheese, he had never tasted better cheese than some that had been made in this neighbourhood.

Mr. THISTLE thought they were making as good cheese here as they were now doing in Cheshire. No doubt the agricultural shows had done much to further the improvement in cheese-making.

Mr. PEARSON said it should be borne in mind that there was nothing so susceptible as milk to bad smells, or that more readily took up any injurious gases, and this rendered it the more important that the dairy should be kept clean.

Mr. HARRISON said the tenant farmers were obliged to put up with such buildings as the landlords erected, and many of them were not at all fit for cheese-making. Good wives would take every precaution they could in the way of cleanliness, but he thought there was a great dereliction of duty on the part of landlords in not providing sufficient dairy accommodation. The dairy was often the only repository that could be found for the provisions of the house. The dairy ought to be

separate apartment, and until they had a more improved system of farm buildings they could not succeed in making good butter and cheese. He hoped the day was not far distant when the attention of the landlords would be directed to this matter.

The CHAIRMAN thought it was the duty of the tenant farmer to press it upon the attention of the landlord.

Mr. HARRISON said, with reference to the produce of the Yorkshire cow, she would average 5lbs. or 10lbs. of butter per week. He knew one that yielded 16lbs. or 18lbs.

Mr. ELLIOTT said she must be a first-class animal that would produce an average of 7lbs. of butter per week.

Votes of thanks to Mr. Kerr and the Chairman brought the proceedings to a close.

THE NORFOLK AGRICULTURAL SOCIETY.

MEETING AT HARLESTON.

The Norfolk Society this year pitched its tents—or to speak more accurately its shedding—at Harleston, a town on the borders of Norfolk and Suffolk, which divides with Bungay and Beccles the honour of ministering in various ways to the wants and wishes of the inhabitants of the rich valley watered by the Waveney. Harleston is so near Suffolk that the Suffolk element was naturally stronger than ever at the Norfolk Show this year, although it is generally found in pretty good force at these meetings. But the very irruption of Suffolk added to the character of the show, especially in the horse and cattle classes. Norfolk comprises some famous sheep breeders, but as regards Shorthorns it can scarcely be said, with the exception of her Hugh Aylmer and a few aristocratic amateurs, that her agriculturists make this stock their speciality; and, perhaps, they are wise in their generation in following this policy, as we cannot all be roaring lions in the world, and cannot all get money by producing Shorthorns, however weighty their points, or lengthy their pedigrees. Be this as it may, however, there can be no doubt that the Norfolk Society has been following of late an eminently progressive policy. Those who remember the days when the Society used to gyrate, pendulum fashion, between Norwich and Swaffham, and between Swaffham and Norwich, would probably hardly recognize it now as the same body. The classes of exhibitors continue to comprise a large Suffolk contingent, and the landlord element is yet very strong; but still there are certainly tenant-farmer exhibitors to be found now, who put in no appearance at the meetings held ten or twelve years since. The attendance at the shows has also largely increased, while the amount of the prizes has been materially augmented. The whole tone of the Society has also undergone a beneficial change. Although the welcome accorded by Harleston was warm, the means of communication enjoyed by the town are tedious and imperfect. The Great Eastern has only a small single-line branch through the Waveney Valley, and when you pour ever so many hundreds or thousands over a branch upon which but a few dozen passengers can be accommodated with comfort, it is not very difficult to anticipate and predict the inevitable result. The policy of visiting various parts of a county is undoubtedly a good one for a county society to adopt, but the town selected should always be one having a double set of rails to it, or at any rate one having more than a single line converging upon it. As might have been expected from the selection of so inconvenient a site the receipts were below those of last year.

The show of Shorthorns was numerous and good, the only drawback being that, as will be seen by the prize list, preciously few premiums for pedigree stock remained in the county. In the Shorthorn bull class, the Saffron Walden decision was reversed, Mr. Upson's Monk playing at Harleston only second fiddle to Mr. Kersey Cooper's Hogarth II., who, it will be remembered, figured with distinction at the Attleborough

meeting of the Norfolk Society last year. He does not appear to have grown much during the last twelve months, but he has undoubtedly good form and quality, although he has not the massive proportions of Monk. Lady Pigot's Charles Le Beau was only placed third in the older Shorthorn bull class, but her ladyship had her revenge in the two-year-old class, her Bythis beating Lord Walsingham's Grand Signor II. The Merton bull has size and symmetry to recommend him, but Bythis was considered to handle better. In the Shorthorn cow class, the competition was once more between Lady Pigot's Queen of Rosalea and Mr. How's Lady Anne. The decision given at Attleborough last year between these competitors was, however, reversed this year, Lady Anne being considered to have "gone off," while Queen of Rosalea has spread, without at the same time any material loss of symmetry. In the heifers it will be seen that Mr. How was more fortunate. The Society still keeps up some Devon prizes; but it can scarcely be said that Devons make any progress in Norfolk, Mr. Overman, of Burnham Sutton, making a clear sweep of all the Devon premiums, with scarcely any competition. The Society has certainly reduced its Devon classes to three—bulls, cows, and heifers; but they are so poorly filled, that it is almost a question whether they might not be dispensed with altogether. Prizes to the amount of £25 were distributed among just four animals. "Touch the Devons, and down comes the Society," said one of its departed members, with an air of great gravity and wisdom some years since. Touch the Devons, indeed! Why, there are scarcely any left to touch. The most business-like feature in the show-yard—which stood out in pleasing contrast with the languishing Devon classes—was the substantial *bond fide* exhibition of Norfolk and Suffolk red polled cattle, of which there was a capital entry. Norfolk held its own manfully, and the prize animals of Mr. Brown of Thursford, and Mr. Hammond of Bale, showed that the breed is making progress in the county, both as regards purity and quality. A new exhibitor appeared amongst the red-polls in Mr. J. J. Colman, the principal partner in the famous Carrow Works near Norwich. Mr. Colman showed Cherry Tree, a bull of Suffolk descent, bred by Mr. Wolton of Newbourn, that attracted great attention, and secured a little fortune in prizes. He has a good head, and his symmetry is generally creditable—in fact he was considered a model two-year-old "red polled." It is clear that the men of Norfolk will do well to cultivate this red-polled speciality; for if they have not courage enough to go in as a body for Shorthorns, they will still acquire considerable fame if they succeed in further developing and improving a good serviceable local breed. There were some nice dairy cows on the ground, and some Ayrshire-Shorthorn crosses brought Mr. H. Overman, of Weasenham, several prizes. Among the few fat cattle shown, Mr. Barcham exhibited a good red Highland Scot.

In the cart-horse classes—that is, such of them as were open—Suffolk appeared as usual in overpowering force; the strength of Norfolk being reserved for some local classes in which there was a better competition than in former years. There is still a comparative absence in Norfolk of that professional cart-horse breeding which may be said to distinguish Suffolk; nevertheless, more interest is taken in the matter in Norfolk than was observable twelve or fifteen years since. In the open class, the most noticeable cart stallion was the Shire horse, Honest Tom, shown by Mr. Welcher, of Toft, that figured with some distinction at Bury, Leicester, and Manchester, in 1867, 1868, and 1869. He was only placed second-best, however, at Harleston, the chief premium going to Mr. Rist's well-known Harwich Emperor, who seems to have worn quite sound again. As regards the Norfolk cart stock, properly so called, the cart mares and plough-horses comprised some very good specimens, and the trials of the latter excited considerable and justifiable interest. Some of the best Norfolk cart-horses on view came from the Fens or the districts bordering on the Fens.

The competition for the thoroughbred stallion prizes was weak, but feeble as it was it upset the Saffron Walden award in favour of Deerfoot. At Saffron Walden it will be remembered that Deerfoot won altogether no less than £45, but he was placed second-best at Harleston to Little Hastings, who was second at Attleborough to Dalesman. There was a sad falling-off in the number and character of the hunters shown, but there was a fair amount of competition in the hackney classes. Several of the hunting prizes went into Suffolk, but in the hackneys Norfolk fared better, and rather more interest appears to be taken in the county in hackney breeding than was to be met with some years since, although there is still considered to be room for further improvement. The principal prize for cobs was taken by Mr. H. Overman, of Weasenham, who achieved great success during the day in almost every department of the Show, taking in all 21 premiums, besides silver medals.

Amongst the Southdowns, Lord Walsingham* thought fit to make no sign, and Lord Sondes had, to a great extent, a walk over with his handsome highly bred sheep. His Royal Highness the Prince of Wales, who breeds from Lord Walsingham's and Lord Sondes' stock, was however the recipient of two or three prizes. The long-wooled prizes were nearly all carried off by Mr. Brown, of Marham, although Mr. Giblin, of Essex, did not put in an appearance altogether without success: as it would have been strange, indeed, if it had been otherwise, since Mr. Brown and Mr. Giblin were the only exhibitors in this department. The lambs in most of the classes were moderate, the season not having been a favourable one. In the miscellaneous sheep classes victory remained almost unchallenged with Mr. H. Overman's Oxford Downs.

The pig classes were good, but nearly all the prizes were attached to the well-known names of Duckering, Sexton, and Stearn. Still Mr. H. Aylmer and Mr. T. L. Taylor were not unsuccessful as Norfolk exhibitors.

As regards implements, Harleston offered a special prize of £10 to the exhibitor of the best newly-invented or improved implement for the purpose of agriculture; but this was put out in portions to Holmes and Sons, Norwich, Murton and Turner, Kenninghall, and Robey and Co., Lincoln. Annexed is a complete list of the exhibitors in this department: Amies and Barford, Peterborough; Baker, Lynn; Barnard, Bishop, and Barnards, Norwich; Bentall, Heybridge; Bone, Framlingham; Bradford and Co., Fleet-street, London; Burrell, Thetford; Dodman, Lynn; Gardiner, Mendham; Garrett and Son, Leiston; Gidney, East Dereham; Harper, Beeches; Holmes and Sons, Norwich; Knights, Harleston; Le Pevre, Norwich;

Leggett, Elsing; Loveday, Old Buckenham; Marshall, Sons, and Co., Gainsborough; Murton and Turner, Kenninghall; Mullenger and Sons, Pulham St. Mary; Pashley, Titvetshall; Randall and Sons, North Walsham; Rands and Jekell, Ipswich; Readyin, Fakenham; Riches and Watts, Norwich; Robey, Lincoln; Savage, Lynn; Stringer, Diss; Sweetman, jun., Diss; Thorn, Norwich; Teigh and Smith, Limehouse; Turner, Ipswich; Woods, Cocksedge, and Warner, Stowmarket; Wheeler and Wilson, Regent-street, London; Cheavin, Boston; Townshend, New Buckenham; Smith, Halesworth; Anderson and Co., Ipswich; the Singer Manufacturing Company, Cheapside; Howes and Son, Norwich; Humphries, Pershore; Leggett, Eye; Packard and Co., Ipswich; Cann, Harleston; Townsend, Fordham; Freeman, Norwich.

The dinner in the evening was attended by about a hundred, and there was some vigorous practical speech-making on the occasion. In this respect Norfolk contrasted most favourably with the recent Essex meeting. Mr. Sewell Read was on his native heath, and supplied the oratorical *pièce de resistance* of the evening. Sugar production, taxation, hedgerows, rabbits, labourers' cottages—all the stock subjects of the agricultural world, were handled in turn by the various other speakers, whose utterances we have reproduced below to some little extent.

PRIZE LIST.

CATTLE.

JUDGES.—J. Clayden, Littlebury, Saffron Walden.
C. Howard, Biddenham, Bedford.

Shorthorn bulls above three years old.—First prize of £10 and Harleston prize of £20, G. Kersey Cooper, Bowbeck House, Ixworth, Suffolk (Hogarth 2nd); second of £7, J. Upson, Rivenhall, Essex (Monk); third of £4, Lady Pigot, Branches Park, Suffolk (Charles le Beau). Highly commended, N. Catchpole, Bramford, Suffolk (Sorcerer). Commended, R. Barcham, Thargarton, Norfolk (Brilliant).

Shorthorn bulls not exceeding three years old.—Prize of £10, Lady Pigot (Sidus).

Yearling Shorthorn bulls.—First prize of £10 and silver medal, Lady Pigot (Bythus); second of £7, Lord Walsingham, Merton Hall, Norfolk (Grand Signor 2nd); third of £4, Lady Pigot (Great Gun). Commended, W. Goulder, Wimbotsham.

Shorthorn cows, in-calf or in-milk, above three years old.—First prize of £10 and silver medal and Harleston prize of £10, Lady Pigot (Queen of Rosalea); second of £7, J. How, Broughton, Hunts (Lady Anne); third of £4, N. Catchpole, Bramford, Suffolk (Buttercup). Highly commended, J. Upson, Rivenhall, Essex.

Shorthorn heifers, in-calf or in-milk, not exceeding three years old.—Two premiums of £5 and silver medal, J. How (Windsor's Butterfly); second of £7, Lady Pigot (La Belle Hélène). Highly commended, Lord Walsingham and J. Upson.

Shorthorn heifers not exceeding two years old.—First prize of £8 and silver medal, J. How (Vesper Queen); second of £5, Lady Pigot (Dame); third of £3, N. Catchpole (Coronet). Highly commended, Lady Pigot. Commended, G. K. Cooper and W. How.

Devon bulls.—Harleston premium of £10 and silver medal, J. Overman, Burnham Sutton (Wellington).

Devon cows, in-calf or in-milk, above three years old.—Prize of £10, J. Overman (Violet).

Devon heifers, in-calf or in-milk, not above three years old.—Prize of £5, J. Overman, Fuchsia).

Norfolk and Suffolk red polled bulls, above three years old.—First prize of £10, B. Brown, Thursford (Norfolk Duke); second of £7, R. C. Symonds, Aylmerton. Highly commended, J. F. Palmer, Wilby.

Norfolk and Suffolk red polled bulls above two years old.—First prize of £10 and Harleston prize of £20, J. J. Colman, Norwich (Cherry Duke); second of £7, S. Walton, Newbourn, Suffolk (Broadback). Highly commended, W. T. Mullen, Swafeld.

Norfolk and Suffolk red polled yearling bulls.—First prize of £10 and silver medal, Lord Sondes, Elmham; second of

£7, B. Brown (Young Duke); third of £4, T. L. Taylor, Starston (Richard III.). Commended, B. Brown.

Norfolk and Suffolk red polled cows, in-calf or in-milk, above three years old.—Harleston prize of £10 and cup, J. Hammond, Bale (Butler); second of £7, J. Hammond (Lady Davy); third of £4, Sir W. Jones, Bart., Cranmer Hall (Primrose). Highly commended, S. Wolton, and class generally commended.

Norfolk and Suffolk red polled heifers, in-calf or in-milk, not exceeding three years old.—Harleston prize of £10 and silver medal, J. Hammond (Buttercup); second of £7, Lord Sondes; third of £4, B. Brown (Hanson). Highly commended, S. Wolton.

Norfolk and Suffolk red polled heifers, above one year old.—First prize of £8 and silver medal, J. Hammond (Davy the 4th); second of £5, Lord Sondes; third of £3, Lord Sondes. Highly commended, Sir W. Jones.

Cows, in-calf or in-milk, above three years old, cross-bred or any pure breed not being Shorthorn, Devon, or Norfolk and Suffolk red polled.—Harleston prize of £10 and silver medal, H. Overman, Weasenham (Doat's Eye); second of £7, W. T. Mullen, Swafield (Kathleen); third of £4, H. Overman (Alexandra). Commended, C. Boby, Stutton, Suffolk.

Heifers, not exceeding three years old, not being Shorthorn, Devon, or Norfolk and Suffolk red polled.—Harleston prize of £10 and silver medal, H. Overman (White Rose).

Yearling heifers, cross-bred or any pure breed, not being Shorthorn or Norfolk and Suffolk red polled.—First prize of £8 and silver medal, H. Overman (Gay Lass); second of £5, J. Overman (Elegance).

Calves, steers or heifers, not exceeding six months old, bred in the county.—Prize of £5 and silver medal, Lord Sondes.

Steers of any breed, above three years old.—Prize of £8 and Harleston prize of £10, R. Barcham, Thurgarton. Highly commended, J. J. Colman.

Steers of any breed, not above three years old.—Prize of £8 and silver medal, H. Overman.

Cows or heifers above three years old.—Prize of £5 and silver medal, G. Hart, Pulham. Commended, G. Hart.

Heifers not above three years old.—Prize of £5 and silver medal, H. Overman.

AGRICULTURAL HORSES.

JUDGES.—J. Thomas, Bletsoe, Beds.

W. Thompson, jun., Thorpe-le-Soken, Colchester.

Cart stallions not under four years old.—First prize of £10 and silver medal, I. Rist, Tattingstone, Suffolk (Harwich Emperor); second of £7, W. Welcher, Tofts, (Honest Tom). Highly commended, C. Boby. Commended, J. Waite, Martham.

Two year old stallions.—First prize of £6 and Harleston prize of £20, W. Wilson, Baylham, Suffolk; second of £4, the executors of T. Capon, Demington, Suffolk. Highly commended, I. Rist, and the executors of T. Capon. Commended, S. Wolton.

Yearling entire colts.—First prize of £5, J. Grout, Woodbridge; second of £3, S. Wolton. Commended, A. Noble, Creeting St. Peter, Suffolk (Hero).

Mares not under four years old.—Harleston prize of £10 and silver medal, and extra Harleston prize of £10, the executors of T. Capon (Matchet); second of £7, A. Noble (Duchess); third of £4, executors of T. Capon (Darby).

Three year old fillies.—First prize of £6 and silver medal, S. Wolton (Duchess); second of £4, J. Lines, Thorpe Parva (Doughty).

Two year old fillies.—Prize of £5, S. Wolton. Commended, executors of T. Capon.

Foals.—Prize of £5, J. Lines.

NORFOLK AGRICULTURAL HORSES.

JUDGES.—R. G. T. Howard, Temple Bruer, Lincoln.

G. M. Sexton, Wherstead, Suffolk.

Norfolk cart stallions not under four years old.—First prize of £20, J. Tingay, Ellingham (Young Briton); second of £10, H. Overman (The Norfolk Lion).

Three year old Norfolk cart stallions.—First prize of £12, C. Tidman, Blofield (Young Thumper); second of £8, W. Kirk, Attleborough (Volunteer).

Two year old Norfolk cart stallions.—First prize of £10, W. Durrant, Brunstead; second of £8, J. Read, Mendham (Premier).

Yearling entire Norfolk cart colts.—First prize of £8 and

silver medal, L. J. Palmer, Snetterton; second of £5, F. Spelman, Tivetshall (Proctor). Highly commended, C. W. Spelman.

Norfolk cart mares not under four years old.—First prize of £5 and Harleston prize of £10, E. Crowe, Denver (Smart); second of £10, C. Edwards, Stow Bardolph (Pink); third of £5, H. Overman (Brag). Highly commended, H. Overman and E. Beck. Commended, T. L. Taylor and W. Betts, Tibenham.

Three year old Norfolk cart colts.—Harleston prize of £7 and silver medal, H. Overman (Sharper); second of £4, W. Betts (Short).

Three year old Norfolk cart fillies.—First prize of £10 and silver medal, T. Calver, Burnham Thorpe (Blossom); second of £7, H. Overman (Brandy). Highly commended, J. Tingay.

Two year old Norfolk cart fillies.—First prize of £8 and silver medal, T. L. Taylor (Countess); second of £5, W. How (Beauty); third of £3, T. Calver, Burnham Thorpe (Bounce).

Yearling Norfolk cart fillies.—Harleston prize of £8 and silver medal, E. Betts; second of £5, W. Allen, Little Ellingham (Smart); third of £3, H. Overman.

Norfolk cart foals.—First prize of £8 and silver medal, E. Crowe, Denver; second of £5, J. Carman, Weston.

Pairs of cart horses (mares or geldings).—Melton Constable cup and silver medal, J. Tingay (Smiler and Prince); second of £10, H. Overman (Gilbert and Jolly); third of £7, H. Overman (Boxer and Gipsy).

THOROUGHBRED AND HUNTING HORSES.

JUDGES.—F. Oldaker, Upper Brook-street, London.

S. J. Wellitt, Tathwell, Lincoln.

Thoroughbred stallions.—Cup and Harleston prize of £10, E. Jolley, Banham (Little Hastings); second of £10, Major Barlow, Hasketon, Suffolk (Deerfoot).

Mares or geldings adapted for hunting, equal to carry not less than 14 stone.—Harleston prize of £15, J. Grout, Woodbridge (Lady Charlotte); second of £10, R. Bircham (Prince).

Mares or geldings adapted for hunting, not equal to carry 14 stone.—First prize of £10, silver medal, and Prince of Wales's cup, Major Barlow (Brunette); second of £5, T. Everitt, Creakle (Rupert).

Three or four years old colts or fillies adapted for hunting.—Harleston prize of £10 and silver medal, G. Rolfe, Hingham (Colleen); second of £5, T. Everitt.

Brood mares adapted for breeding hunters.—Prize of £10, H. Smith, Honingham (Honesty).

HACKNEY AND RIDING HORSES AND PONIES.

JUDGES.—H. Beevor, Blyth, Notts.

H. Thurnall, Royston.

Stallions for saddle or harness.—Harleston prize of £15, J. Grout (Sportsman); second of £10, C. Beart, Stow Bridge (Ambition). Commended, R. A. Westropp, Ongar, Essex; C. T. Smith, jun., East Winch, Norfolk.

Riding mares or geldings above 15 and not exceeding 15 hands and 3 inches high.—Harleston prize of £10 and silver medal, Rev. W. F. Thurstby, Bergh Apton (Nevill); second of £5, J. Grout (Alice).

Hackney mares or geldings not exceeding 15 hands high.—First prize of £10, H. Overman (Jenny Lind); second of £3, E. Jolley (Fanny). Highly commended, J. J. Clark, Southacre. Commended, R. C. Rising, Costessey (Elderton).

Hackney brood mares.—Harleston prize of £10, W. H. Jillings, Thetford (Favourite); second of £5, Major Barlow (Gipsy).

Cobs under eight years old not exceeding 14½ hands high.—Harleston prize of £10, H. Overman (Liberality); second of £7, G. K. Cooper; third of £4, G. K. Cooper. Commended, R. Smith, Kimberley, Norfolk.

Ponies not under 13 nor above 13 hands and 3 inches high.—Prizes of £5 and £3, T. L. Taylor (Tom Noddy); second of £5, R. G. Beart, Rainham (Tommy Dodd); third of £3, C. Groucock, Stanfield, Norfolk (Puss). Commended, J. B. Pratt, Mendham, and H. G. Nelson, East Somerton, Norfolk.

Ponies not above 13 hands high.—First Prize of £5, W. Rose, Wymondham, Norfolk (Lily).

SOUTHDOWN SHEEP.

JUDGES.—H. Fookes, Whitechurch, Dorsetshire.

W. Rigen, Hove, Sussex.

Southdown shearing rams.—Harleston prize of £10 and

silver medal, Lord Sondes; second of £4, the Prince of Wales. Highly commended, J. Overman.

Southdown rams of any age.—Prizes of £5 and silver medal, and Harleston prize of £10, Lord Sondes; second of £7, C. Boby; third of £4, C. Boby. Highly commended, Lord Sondes. Commended, J. Overman.

Shearling ewes.—First prize of £7 and silver medal, Lord Sondes; second of £4, the Prince of Wales. Highly commended, Lord Sondes. Commended, J. Overman.

Southdown ewe lambs.—First prize a cup, value £5, and silver medal, Lord Sondes; second of £3, Lord Sondes. Highly commended, the Prince of Wales.

Southdown wether lambs.—First prize of £5 and silver medal, Lord Sondes; second of £3, the Prince of Wales. Highly commended, Sir Willoughby Jones.

LONG-WOOLLED AND CROSS-BRED SHEEP.

JUDGES.—E. Little, Lanhill, Wilts.

R. J. Newton, Campsfield Farm, Woodstock.

Long-woolled shearling rams.—Harleston prize of £10 and silver medal, and a like prize for the best long-woolled animal in the yard, T. Brown; second of £7, T. Brown; third of £4, T. Brown.

Long-woolled rams.—First prize of £10 and silver medal, T. Brown; second of £7, J. Giblin, Little Bardfield, Essex.

Long-woolled ram lambs.—Prizes of £5 and £3, and silver medal, T. Brown; second of £5, T. Brown.

Long-woolled shearling ewes.—Prize of £7 and silver medal, J. Giblin.

Ewe or wether lambs of any breed.—First prize not awarded; second prize of £5, F. Spelman.

Shearling wethers of any breed.—First prize of £7 and silver medal, H. Overman.

Ewes of any age or breed.—Harleston prize of £10 and silver medal, H. Overman.

Ewes of any age or breed, not being Southdown or long-woolled.—First prize of £10 and silver medal, H. Overman.

Five shearling ewes of any breed.—First prize of £7 and silver medal, H. Overman.

Twenty shearling ewes of any breed.—Prizes of £5 and silver medal, H. Overman.

PIGS.

JUDGES.—H. Fookes, W. Rigden.

Boars of large breed above twelve months old.—First prize of £6 and silver medal and extra prize of £5 for the best boar in the yard, R. E. Duckering and Son, Northorpe, Lincolnshire. Highly commended, R. E. Duckering and Son.

Boars of large breed not above twelve months old.—First prize of £5 and silver medal, R. E. Duckering and Son; second, £3, R. E. Duckering and Son.

Breeding sows of large breed.—First prize of £6 and silver medal, R. E. Duckering and Son; second, £3, F. H. Everett, Bridgham, Norfolk. Highly commended, F. H. Everett. Commended, F. Spelman, Tivetshall, Norfolk.

Boars of small breed (black) above twelve months old.—Prize of £6 and silver medal, G. M. Sexton, Wherstead, Suffolk.

Boars of small breed (black) not above twelve months old.—First prize of £6 and silver medal, S. G. Stearn, Brandeston, Suffolk; second, £3, G. M. Sexton. Highly commended, S. G. Stearn.

Breeding sows, small breed (black).—First prize of £6 and silver medal, R. E. Duckering and Son; second, £3, G. M. Sexton. Highly commended, S. G. Stearn. Commended, S. G. Stearn.

Breeding sows, small breed (black) not exceeding nine months old.—First prize of £6 and silver medal, T. L. Taylor, Starston.

Boars of small breed (white) above twelve months old.—First prize of £6 and silver medal, R. E. Duckering and Son; second, £3, H. Aylmer, West Dereham, Norfolk. Highly commended, G. M. Sexton.

Boars of small breed (white) not above twelve months old.—First prize of £6 and silver medal, G. M. Sexton; second, £3, R. E. Duckering and Son. Highly commended, S. G. Stearn.

Breeding sows, small breed (white).—First prize of £6 and silver medal, R. E. Duckering and Son; second, £3, G. M. Sexton. Highly commended, S. G. Stearn.

Breeding sows, small breed (white) not exceeding nine months old.—First prize of £6 and silver medal, G. M. Sexton; second, £3, R. E. Duckering and Son. Highly commended, H. Aylmer. Commended, S. G. Stearn.

IMPLEMENTS.

JUDGES.—T. Chambers, Colkirk, Norfolk.
J. Fergusson, Brettenham, Norfolk.

Harleston premium of £10 for the best newly invented or improved implement divided between Holmes and Sons, Norwich (£3 for a single winnower portable thrashing machine with chaff sacking apparatus); Newton and Turner, Kenninghall (£3 for their straw, hay, and corn elevator); and Robey and Co., Lincoln (£4 for apparatus for the self-feeding of thrashing machines.) Silver medal: Woods, Cocksedge, and Warner (for an arrangement to be applied to turnip cutters for cutting the last piece). Highly commended, Riches and Watts (grinding mill); R. Knights, Harleston (horse rake). Commended, T. Le Fevre, Norwich (portable horse works for driving elevator or chaff machine); Holmes and Sons (horse gear for driving stacker.)

THE DINNER.

The chair at the dinner was to have been taken by Mr. E. Howes, M.P., but the hon. gentleman was unable to attend by reason of indisposition, and his place had to be made good by Colonel Fitzroy. In the course of the proceedings

Sir W. JONES said he could not see why the entire sugar duty should not be taken off, and why we should not grow sugar in this country as well as on the continent of Europe. He would point out that our climate was manifestly becoming dryer and hotter as it was certain to do by the throwing down of hedges, and in the cutting down of hedge-row timber. He would also observe that no one who had been through the country this year, and looked at the mangold fields, could doubt what he was saying—that the hotter the weather and the dryer the spring, the finer the crop of mangold would be. There was no reason why they should not have in this county very fine crops of Silesian beet, and he would remind them that 10 per cent. of Silesian beet was purely crystallisable sugar, and if they could grow ten tons of Silesian beet in one of their fields (it varied from nine to eleven tons, and the mean average he took to be ten), but when the soil was very wet, as in the west of England, the average probably would not be more than 8 per cent., but then let them remember that if Silesian beet would grow 10 per cent. of sugar, a ten ton crop would grow a ton of sugar, which, at a penny a pound, would bring £9, and at twopence a pound £18. In one respect this was exactly like wheat, because they would have one mill for a district or parish, and every labourer, however small his garden, might grow a hundred-weight or two of beet, and if they had proper mills a hundred-weight of sugar would be just as saleable as a bushel of corn was now. Speaking of this fact reminded one of the great facilities with which fortunes were acquired on the continent by the making of sugar; and he could not see for the life of him why fortunes should not be made here by the same process. Sugar was a thing which old and young could eat with pleasure, and the consumption of which would increase to any amount. He did not see why we should not be able to manufacture it here as well as in Belgium.

Mr. C. S. READ, M.P., said: Sir Willoughby Jones rightly says that it is very important indeed that we in Norfolk should have, if possible, some new crop on which to fall back to meet our present deficiency. There can be no doubt whatever that the potato crop in Scotland has been a perfect God-send to them after free trade was introduced, and the only thing I can say is, that I look upon agriculture in Norfolk, and in the Eastern Counties generally, as going from bad to worse; that whereas they, in Scotland and Ireland, can grow roots and grass to the best advantage, and the proceeds they make are not at all affected by free trade, we in this county, being entirely a corn-growing district, do feel the depression most severely. I have never myself had any experience in the growth of beet-root sugar, and I may say it is a problem that has not yet been solved whether it may be advantageously grown in this district; but I do say that we have one article, and that our chief, in the growth of which we can compete not only against the United Kingdom, but against the whole world—that is to say, our barley. And without saying what I should

wish to be done with the sugar duties, I can only say I should like to have first a very sensible repeal of the malt-tax. Why, sir, we had a very large surplus this year, and we naturally expected that there would be some reduction of that tax, which presses so much upon the agriculturists of Norfolk; but instead of that we were told we were going to receive a great boon, and that boon was that we were to be permitted to germinate our barley as in days of yore. Well, how was this great boon given to us? Not only were we when we were going to germinate barley to give notice to the exciseman of what we were going to do—not only was he to come into our houses where the grain was being germinated and where it was kept, but if we steeped any corn we were also to give that gentleman notice of our intention that we were going to steep it. Now, you would hardly fancy that this great boon should be clogged by such a most iniquitous restriction as this, yet I can assure you it took all my whole time one night to convince the House of Commons that there was really in this boon a most oppressive restriction imposed upon us, and all that I have been able to obtain is this, that we may steep our corn as we please, but that if any of you will germinate your grain first of all you must give the exciseman notice of your intention of what you are going to do, and next you must let him have access to the place where that grain is being germinated and being kept, and if you fail in any one of these particulars you will be liable to the small penalty of one hundred pounds. ["Oh?"] Whether or no you will like to incur that risk, I don't know; I can only answer for myself; I shall not avail myself of this very great consideration. Well, we have lately had in the House a very sensible concession granted to us, and that is with regard to agricultural horses. It was said in the House that this was an extension of the exemption which the farmers enjoyed. I entirely repudiate that idea. It is no extension whatever. It is simply a definition of that exemption. If the Parliament of the country exempts agricultural horses from the payment of a licence of ten shillings, or whatever it may be, the Parliament of the country at the same time tells you that the farmers have to repair the roads. I need not say that in nine parishes out of ten the only persons who can cart materials on the roads are farmers; therefore it is perfectly monstrous that, in doing what Parliament puts upon us, we should entirely abrogate the small exemption which Parliament had previously conferred upon us. I can only say that if it had not been for Mr. Speaker, I don't think even that small concession would have been made. There is one other subject I will mention. We are told that we agriculturists ought to be greatly pleased that we have in Prince's-street, Westminster, what they call a veterinary department. Now, that veterinary department will this year cost the country £10,000 for the payment of salaries, without any estimate at all being made for the legal expenses, stationery, and such like little matters. Now, I will ask you, as practical farmers, whether you believe the Veterinary Department of the Privy Council has ever been of any benefit to you whatever ["No?"], or, on the other hand, whether, instead of costing you £10,000, it has been of ten thousand pence benefit to you? Mind you, I am quite ready and willing to admit the great service the veterinary profession themselves—Professor Simonds and Professor Brown—have rendered to us; but, on the other hand, when I come to consider the extraordinary salaries that are paid for this department, and that in addition to this there are £15,000 a-year spent annually for the collection of statistics, I mean to say that if we had that £25,000 devoted, as it ought to be, to some agricultural department of the Board of Trade, that we really might have then some substantial benefits conferred upon us. Sir, it is just twelve months ago that I, at Attleborough, drew a somewhat gloomy picture of agricultural prospects. I then said that the very cold, wet weather which we had experienced was telling most unfavourably upon the county of Norfolk. It pleased Providence to send us a change of weather, and we had a most beautiful harvest, but enough injury had been done to us in Norfolk for us to grow only a small crop of corn and to sell it at a small price. This, following upon the drought of 1868, was enough to break the backs of many farmers; but now we have, unfortunately, another drought, and what the result of these three disastrous years will be I cannot contemplate without serious fears. I should like to say a few words with regard to the Show itself, and upon our Agricultural Society. I think we must congratulate ourselves that in

this very pleasant, but somewhat out-of-the-way part of the world, we have had so successful a show. It only confirms my idea of what a county show ought to be. You cannot make a county show a great national agricultural exhibition. What you ought to do is to endeavour to confer the greatest possible amount of good upon the county in which you live. It was this idea that always pervaded my mind when I was a somewhat active member of the committee of the Norfolk Agricultural Society. Another idea I had was this—how necessary it was to improve the native breeds of stock, and this we have in a measure succeeded in doing. I would ask anyone to look back fifteen years and think what the Norfolk homebreeds were then, and in what condition were our Norfolk cart horses. As a Norfolk man, and in the presence of so many of our Suffolk brethren, I hope I shall not be considered egotistical, but I say that our Norfolk cart horses, especially the mares and plough horses, are a credit to any country, and for work and endurance they are equal to any county, and, perhaps, I may say, superior to some of the highly-fed Suffolks.

Mr. CHARLES HOWARD, in speaking for "the judges," said; The Shorthorns, in some of the classes, were, perhaps, some of the finest specimens you could see in any show-yard; but I only regret to tell you, gentlemen, they don't come from Norfolk. They are what I call outsiders. They are sent here to show you gentlemen in Norfolk what you should do. I don't believe that any progress is made when people wrap themselves up in supposed excellence; and I should not be doing my duty towards you, after you have done me the honour of asking me to come here and act as judge, if I allowed some observations to pass unnoticed. I have had the honour and privilege of attending very many agricultural shows in this kingdom, and although excellent as your Show is—exceedingly good—yet I would not have you lay to yourselves the flattering union that you are pre-eminent in this matter. If you do, you may depend upon it success won't follow your efforts. I have disposed of Shorthorns; I only wish you would keep those outsiders away—at least, you may allow them to come, but don't allow them to take your prizes away. But there is a class of stock, the Norfolk Fells, which is famous in Norfolk, and which I think does the breeders and feeders of that stock infinite credit. I have watched that stock, having attended your shows for some years past, with great interest, and it is a class of animal worthy of being cultivated in other districts besides Norfolk, and as it succeeds so well here I am surprised that gentlemen in other parts don't take it up. I am sure what I say to-night you will not suppose, nor do I intend it so, that I say it in a spirit of unkindness; but you have long been held up to us in distant counties as patterns of agriculturists and as a county in which there is the best farming in the world. Now, I have had the opportunity of seeing a good deal of farming in Norfolk during the last few days. I am not going to find fault with your farming, but I should tell you this—that if you don't look out you will no longer hold the position you have done—that other counties will very soon trip you up, and you will lose that position you have so long and so worthily held. There is one other point to which Sir Willoughby Jones has referred—the change of climate produced by the cutting down of hedge-row timbers and woods. Well, it is certain that has not had that effect in Norfolk, for I never was in a county in my life where I saw so much useless hedge-row timber. I am quite certain of one thing—that the farmers of Norfolk do all they can to meet the exigencies of the times; it now rests with the landlords to help them. The first thing they should do would be to allow them the privilege of cutting down this beastly rubbish—pieces of timber which if they stand fifty years will never be worth a sovereign—to cut down many of the hedge-rows and to destroy the great pest of the farmers—the tenants of these wild hedge-rows, the rabbits.

Mr. H. OVERMAN, in responding for the "Successful Exhibitors of Sheep," said; It had pleased Mr. Howard to make a few remarks on the Norfolk Show, and he thought much to the point, but he did not agree with all that he had said. He told them that they must not think so much of themselves. [Mr. HOWARD: I did not.] If he did not put it in that way he inferred it; he took them down a little. As far as the Shorthorns were concerned, he (Mr. Overman) said that when they considered the Norfolk Show stood second to none in England, being second only to the Royal Show, they ought not to expect people to come from distant counties and not to

take away a single prize. A much more important subject was that of the hedge-row timber. They were living in critical times, and unless the landlord went a-head as fast as the tenants had done, good-bye to their having any tenants at all. As to hedge-row timber and hedges, Mr. Howard would not have made the remarks he had done if he had visited West Norfolk, for there the landlords were going a-head, taking down the fences by wholesale and thereby the timber. If landlords persisted in over-preservation of game he did not hesitate to say they would have to farm the land themselves. The misery of this might first of all fall upon the tenants, but it would afterwards come upon the landlords, and perhaps many of them would be able to find

neither the capital nor the ability. Before sitting down, he must refer to the remarks made by Mr. Clare Read. It was very pleasant to some to find fault with the taxes made by others—in fact it suited them sometimes—but as regarded the tax on agricultural horses he looked upon it as a matter of no importance whatever, for if stones were carted off the land, that was a matter of the tenant farmer—he must cart if he had got a large quantity of stones, and if he carted them from the land he did so from an agricultural point of view, and he could shoot them down wherever he pleased, and if he put them on the roads, as they ought to be, they could be placed by the side of the roads and put upon them after they were broken. This he regarded as the far better plan.

THE ESSEX AGRICULTURAL ASSOCIATION.

MEETING AT SAFFRON WALDEN.

The thirteenth annual show of the Essex Society was held for the second time at the ancient little town of Saffron Walden, capped now with its new and elegant market-place, about as much in keeping with the rest of the place as a Lincoln and Bennett would have been to the farmer of days gone by—what with the brown tops, and high-collared, long-skirted, everlasting drab great coat, impervious alike to heat or cold, sunshine or rain, that he wore in all his outings both winter and summer, to church, markets, fairs, or feasts, at the rent-roll or going a courting. The Society pitched their tents close to the town, on ground evidently chosen more for the beautiful view from it than to show off the animals to advantage. Horses more particularly cannot show well when either standing still or going through their paces on the side of a hill, to say nothing of this being unfair to the judges, or the danger the riders risk. The judges were on the ground and at work soon after the early bird had proclaimed the morn; for a little before eight we found the popular member for Bedford in an entirely new character—as a judge of hunters, hacks, and thorough-breeds, assisted by Justice Thurnall and another, whose commanding figure and gentle whisper are as well known to the frequenters of the Hall at Islington as ever that posturing genius of the Ring, Mr. Widdicomb, was to the admirers of Scenes in the Circle. In another ring close by were the judges of the agricultural horses. The ground was nicely laid out, and the shedding good, while of agricultural implements and machinery there was a capital display. To swell out a catalogue, and as a kind of decoy for exhibitors, it is now becoming pretty general to allow the same animal to be entered in several classes, in the belief that he will stand a better chance of a prize. This is in most cases but a delusion, as shown by the prize-list; but that is not all, for it confuses and wearies out the public and endangers the popularity of horse shows, which have hitherto been the most interesting of exhibitions.

Here the privilege was granted to the full, and many of the riding horses came into the ring with their heads smothered in numbers relating to the different classes; and as there was no telegraph board to denote either the number of the class or the prizes, the public was left in a state of bliss, if it be a folly to be wise, as were the judges who kept continually crying aloud "what class is this?" Then the horses came in anyhow, and just as the Bench had agreed upon their verdict in would drop another. In the shedding the prizes were posted thus: the numbers relating to the classes in which the animals were entered were nailed at the head of the stall, and the prize or commendation, without any number as to

class, by the side, so that you could not tell in which class the animal had been successful. The mystery of Edwin Drood, alas! will always remain a mystery, and so will the mysteries concocted for the visitors to the Saffron Walden show, as they would have done with us if it had not been for the kindness of the judges and officials who favoured us with a sight of the returns. Surely, with a little forethought these things might be managed so that the public, catalogue in hand, could know as much as anybody else, or this revolving world for the last thirteen years must have been wearing out its own axis for nought.

The strong part of the show was most decidedly not in the riding classes, as there were few horses of any character. Then, the lamentable accident at Islington had something to do with this, for Mr. Barker, the well-known Essex dealer, always had a good string, and in this year's catalogue several entries, which of course were all absentees. For the thorough-bred stallion prizes there was nothing so grand as Dalesman of last year, although Major Barlow, with another from his inexhaustible string contrived to carry off both the open prizes. Deerfoot by Viudex, out of Tranquillity, is a black and a very flashy light corky gentleman, with almost as much white as False Alarm, the Bury prize horse. He stands sixteen hands high, of great quality, and very handsome, with a nice head and neck, capital ends, good limbs, and a free springy mover; but he was light, and tucked up in his middle, which made him appear higher on the leg than he is. Little Ben, by Big Ben, out of Flame, the only other competitor that we thought stood a chance with Deerfoot, and that it was hard to get away from, is the very model of a light-weight hunter, worth going from London to Saffron Walden to see. He was shown in hunting condition, and, taking him from his head to his tail and down to his knees and hocks is about one of the neatest we ever saw. He is very muscular, stands fifteen-two, but he has not the clean flat legs of Deerfoot, nor can he move so freely; but then the horse has done a deal of work, and Deerfoot ran thirty-eight times, so there we are again. Deerswold in colour takes a little after Orlando, but in nothing else, for there is no symmetry about him. He is heavy before, with a short waspy middle, all of a heap, and we hate the sight of him, although bred by her Majesty. Bay Volunteer, by Alarm, struck us as a coach-horse, or best adapted for getting machiners, while of Buckfoot by Acrobat, out of Heirloom, although second to Dalby for the Chester Cup, what with the little there is of him, is of a very hackish appearance. Then Weathercock, by Weatherden, in length like a longboat and as high on the leg as the steeple, is a nice sort of horse for a party of tourists to take through a country, as they could get

a grand view from him anywhere. His card says that he was awarded the £15 prize at Colchester, for the best thoroughbred horse in the county. True enough this, but then he was the only one exhibited, and quite enough too of the sort. There is something very good throughout the groggy old Knight Templar; but a black three-year-old by Vedette looks more like an Improved Essex than a thoroughbred horse.

Of the hunters, what shall we say for the lot? Why, that there were very few worthy of a bid for the Noble Science. In the first class, without conditions, the prizes were withheld; while Villager, a chesnut four-year-old of breed, in the light weights, was all over a very nice horse, that could gallop. He was again victorious in the three and four-year-olds, beating the prize four-year-old mare, by Frogmore, of Mr. Sparrow's, a light wiry mare that could move but with nothing grand in her appearance. She was also first in an open class for hunters, where she beat a bay with white heels of Mr. Patmore's, that could go a bit, but was badly ribbed up and goose-rumped; if this droop, though not quite pleasing to the eye, is to be found in many of our best hunters. Mr. Patmore had another bay by Trumpeter, that, if not perfect in form, looked like getting over the ground. Silvertail, a provincial in style and up to more weight than pace, beat the Bishop of Stortford's bay with the goose rump for weight-carriers, and as there was nothing else in, it was entirely "twixt the two" as the gipsy dealer replied when asked which was the pick of a couple of fearful screws? Of hackneys, like the hunters, there were very few good-looking; Mr. W. Gilbey's Quadroon, with breed, has fussy tutored park action and is waspy in her middle piece; then Quicksilver, a strong weight-carrier with a little too much of the trotter stamp, looks like bowling along at a good pace. Mr. W. Clayton's Needlewoman is a neat hack, but not improved by a mean tail; while Mr. H. Taylor showed a fair-made bay. In the next lot, an open class, Quadroon was again to the front; but with Mr. Badham's Eclipse, Mr. Egerton's varmint old weight carrier, the Brewer, and Quicksilver, we thought a second prize too much of a sacrifice to tutored park action. Baronet from Bulmer, as well as Eclipse, was shown, and we were sorry that Mr. G. D. Badham was unable, through a bite from a boar, to ride them himself. Although it kept him within doors and from the show, we were glad to hear that the mishap was thought more curious than serious by his friends. There were two fair-made brood mares and foals, one Lizzy a bay, and a hardy wiry looking chesnut of the right material from Mr. Portway's stud. There were three or four cobs, the best by a long way, being Mr. Saville's, as she could go. The weight-carrier was a chesnut by Strathmore a lengthy strong cob with a head not well set on, and a strong heavy forehead. In the ponies Mr. Archer's cream-coloured mare was a wonderful showy goer, but the prize went to a skewbald because the cream had been down on her knees.

The strong part of the horse show was the agricultural classes, and as Suffolk is the adjoining county, the Pauches came down upon Saffron Walden like locusts, and the chesnut hue prevailed. These animals like the riding horses, were in several classes. Mr. Badham was to the fore with Hercules and Great Eastern, both by Royal George, and a strain of Chester Emperor, that most gentlemanly of cart horses. In an open class old Harwich Emperor, as the Professor did not put his mark against him, cleared the way with some good horses behind him, including Great Eastern. The local two-year-old entire colts were nothing out of the way, while in the open class were several very good, nearly all being commended. Then in the yearling entire colts the judges thought there was nothing worthy of

being placed second to Mr. Badham's colt by Great Eastern, and witheld the prize. The cart mares under four year's old did not muster in any strength, but three or four were very good. Mr. Capon's grand mare Matchett, by the late Mr. Crisp's Conqueror, in a capital open class, with Mr. Wolton's Diamond at her heels, carried off the blue riband, the whole class being commended. The three-year-old local filly is a short-legged lengthy useful iron grey; while the open prize filly under four years is a two-year-old fine-grown roan, rather high on the leg, by Quilhampton's Horse; and the highly-commended, a short compact-made Suffolk three-year-old by Mr. Wolton's Warrior, if anything, is rather short in the quarter. The gelding Jolly is a level-made bay that looked like stepping along. The roan Quilhampton filly was again first in the two-year-old fillies, the second and reserved being some light coloured Suffolks of very fair form by Clayden's Horse. The yearling fillies were not much to look at, and the first, though fine-grown and having a crest like a stallion, has not the best forelegs, while the second was a very leggy one of Lord Braybrooke's, by Clayden's Horse. It is a pity that breeders cannot find names for their nags; for there is nothing easier than to borrow an old stud-book or a hound list. Here we have three of them all of a heap: "Clayden's Horse," "Quilhampton's Horse," and "Harvey's Horse." We have heard of the sauce, but not of the horse; and really any one would think that these gentlemen were bold warriors at the head of a troop, or that they never had but one horse. There were some good mares and foals, and some very capital pairs of plough-horses.

The exhibition of cattle was a decided success, there being a large entry of pure-bred Shorthorns, but to many of these a show-yard was no novelty; while there were a few very nice things without pedigree, and such a herd of Alderney, Jersey, and Guernsey, that, coming suddenly upon them, we thought by some contrary wind we had been driven upon one of the Channel Islands. Mr. Upson's Monk, bred by Messrs. Garne and Son, and as well-known as a prize-taker at Southampton and elsewhere as he is for his neat form and quality, was the hero of the local class for bulls of any age, with Whipper-in, who got a commendation at Colchester last year, a bad second, as he is still; for, as we then said, he is nothing to look at; while Monarch, with a capital back, who was second at Colchester came in for empty honours. The Monk was again to the fore in the open all-aged class, with Mr. Kersey Cooper's Hogarth the Second, bred by the Reverend Holt Beever, and showing more quality than ever, close up. Of a very different character is Mr. Catchpole's Soreerer, who is a big coarse animal, and a bad handler. Mr. Hutley's King Lear, Mr. J. Christy's Brabraham, and Mandarin, prize takers at Colchester, were down in the entries, and Lady Pigot's Bythis, who in the yearling bulls had to succumb to Heydon Duke, over which was quite the sensation scene of the day, although Bythis does not require a very crack animal to beat him. He is anything but an elegant gentleman, for although full of quality and very deep, he has a coarse horn, a short neck, and a rump that needs a deal of squaring to fit him as an illustration for the Herd Book. Mr. Kersey Cooper, with Hogarth the Second and Christabel with Hogarth the Third by her side, in the place of the deep level Christina, was again, as at Colchester, the owner of the best bull, cow, and calf. The third edition of Hogarth is very rich in colour, with quite the Shorthorn line of beauty in his back. But why have so many editions of Hogarth? What is the pull? Why not call them after some of the painter's works? The Rake, The Politician, or The Idle Apprentice, for a prize bull has a nice time of it. Or for a pair of heifers what could you have better than

Industry and Idleness, or for a single one Sigismunda, which would be a rare mouthful for a hungry cowman? Bythis, with Matelina 2nd by Windsor Fitz-Windsor and Dame by Prince of Buckingham to assist him, was more fortunate in the yearling bulls and pairs of heifers, and there turned the tables on Heydon Duke with Grand Duchess of Oxford 2nd, and Keepsake and a nice trio, Rolla, Nectar, and Pattern, of Messrs. Garne and Son to oppose him. Heydon Duke and Mr. MacIntosh's two real gems of heifers, Charmer and Knightley 2nd, were considered to be the cracks of the yard; and at the dinner Mr. Thurnall, for the judges, declared that the Shorthorns "were the best collection he had ever seen in his life at a local show. He was fortified in this opinion by that of his brother judges. As for the bull shown by the noble President, it was the best he had ever seen, and he hoped it would be sent to Oxford, as it was well deserving of royal honours." When we remember how much Mr. Thurnall has seen, this must be taken as a very high compliment. Mr. Marking's cow is very handsome, and though with no pedigree, shows better than many with one as long as your arm. The Sort, is a good short square-built heifer, had nothing to oppose her, and Mr. Upson's yearling is a well-famed one, but with a bad head, while the second was not a prize animal. In dairy stock Mr. Morris' cow, of a mixed breed, is a curiosity that one might expect to find in the Zoological Gardens, while the second was by an Alderney bull out of a Shorthorn cow, and the third a very nice pure bred Alderney, with a good bag of Mr. Gilbey's, who has gone into Alderney's of the right sort with great spirit, and the struggle for the honour of the Channel Islands lay between him and Lord Braybrooke. But still Mr. Dauncey's sort does not tell altogether with the judges.

The show of sheep was better than last year, with a fair sprinkling of Southdowns, a few Cotswolds, and goodly number of black-faces. Lord Braybrooke's Southdowns came off with flying colours, taking nearly all the prizes, while Mr. Giblin was great in Oxford Downs and Cotswolds. The shearlings appeared rather small, while there was a fair sample of ewes and some good lambs.

The pigs, as a lot, were but an ordinary entry, although there were some pearls amongst them, Messrs. Duckering taking all the open prizes, and there were several grand specimens of the Berkshire breed, but we think all worthy of notice will be found in the prize-list—if not, merit like virtue has its own reward.

There was a dinner at which Lord Braybrooke presided, but where, beyond the few words we have quoted from Mr. Thurnall nothing worth preserving was said. On the second day Mr. Rand, the auctioneer, attempted a sale by auction of some of the stock exhibited, but this we are almost rejoiced to say proved a complete failure. Nothing would threaten to lower the character of a good county show like this more than the habit of getting a lot of inferior things shoved into the catalogue with the chance of selling these at some price on the close of the proceedings.

There were two useful premiums for collections of implements, which were won respectively by Ward and Silver, of Melford, and Davey and Paxman, of Colchester. Mr. Hunt, of Earl's Colne, objected to the second award on the ground that Davey and Paxman's collection comprised certain implements not of their own manufacture, as required by the conditions, but of Hunt's own make. The committee, on consideration, confirmed the decision of the judges in favour of the Colchester firm. Amongst the other exhibitors of implements were Ransomes, Sims, and Head, Ipswich; Burrell, Thetford; Amies and

Barford, Peterborough; Woods, Cocksedge, and Warner, Stowmarket; Robey, Lincoln; Garrett, Leiston; Pash, Chelmsford; Foster, Lincoln; Maynard, Whittleford; Catchpool and Thompson, Colchester; Ray, Saffron Walden; Colman and Morton, Chelmsford; Penny, Lincoln; Peene, Rayne; Baker, Wisbeach; Sworder, Bishop's Stortford; Foster, Witham; Smyth, Peasehall; Hunt, Earl's Colne; Le Butt, Bury St. Edmund's; Headley, Cambridge; Pertwee, Boreham; Darby, Little Waltham; Wilderspin, Elsworth; Green, Saffron Walden; Cottis, Epping; Johnson, Saffron Walden; Barford, Fleet-street; Hitchcock, Bury St. Edmund's; Singleton and Nicholson, Saffron Walden; Dodge, Upper Thames-street; Shelwell, Saffron Walden; Teighe and Smith, Limehouse; Rand and Jeckell, Ipswich; Hilton, Wandsworth; The Farmers' Supply Association, London; King, Coggershall; Johnson, Saffron Walden; Cote, Ipswich; Kent, Saffron Walden; Warren, Maldon; Greenslade, Maldon; Man, Earl's Colne; Hawkes, Aldham; Angleton, Islington; Eddington, Chelmsford; James, Royston; Guivey, Saffron Walden; and the Central Cottage Improvement Society, London.

PRIZE LIST.

HORSES FOR AGRICULTURAL PURPOSES.

JUDGES.—G. M. Sexton, Wherstead Hall.
W. C. Spooner, Southampton.
J. Thomas, Bletsoe, Beds.

Cart stallions.—First prize, £20, G. D. Badham, Bulmer Tye (Hercules); second, £10, E. Emson, Littlebury (Captain).

Open to all England.—Prize, £25, G. D. Badham (Great Eastern). Highly commended, W. Botts, Broomfield (Champion).

Open to all England.—Prize, £25, J. Rists, Tattingstone, Ipswich (Harwich Emperor). Highly commended, N. Catchpool, Whitton, Braunford (Emperor); W. Wilson (2 yrs. old); J. Rist (Young Emperor); S. Wolton, Woodbridge (2 yrs. old), and C. Boby's Conqueror. Commended, G. D. Badham (Great Eastern).

Two-year-old colts.—First prize, £15, J. A. Piggott, Beckingham Hall (New England); second, £10, C. Burnards, Harlow.

Two-year-old colts (open to all England).—Prize, £15, W. Wilson, Ipswich. Highly commended, J. Rists (Young Emperor), and R. Capon's Executors. Commended, N. Catchpool, S. Wolton, and J. A. Piggott.

Yearling colts.—First prize, £7, T. Taylor; second, £5, withheld.

Cart mares, 4 years and upwards.—First prize, £8, S. Jonas, Chrishall Grange; second, £5, G. H. Cant (Colchester); J. Jillings (Chesterfield Park).

Open to all England.—Prize, £10, R. Capon, Dennington, Framlingham (Matchet). Highly commended, S. Wolton, Woodbridge.

Three-year-old filly.—Prize, £5, J. F. Bolt, Morrell Roothing.

Open to all England.—Prize, £10, T. Taylor, Earl's Colne. Highly commended, S. Wolton.

Gelding.—Prize, £5, J. F. Bott, Morrell Roothing.

Two-year-old fillies.—First prize, £8, T. Taylor, Earl's Colne; second, £5, Lord Braybrooke, Audley End, and highly commended.

Yearling fillies.—First prize, £7, W. Thompson, Thorpe; second, £5, Lord Braybrooke, Audley End.

Mares and foals.—First prize, £12, G. H. Cant, Colchester (Suffolk); second, £12, Lord Braybrooke (9 yrs. old). Highly commended, D. A. Green, Donyland Place (Bonny), and commended (Darby).

Foals.—First prize, £5, G. H. Cant; second, £3, P. Portway.

Plough-horses or mares, pairs.—First prize, £10, R. Marking, Saffron Walden; W. Livermore, Elsenham.

Mares, pairs (open to all England).—S. Wolton (Diamond and Doughty). Highly commended, D. A. Green (Brock and Bonny), and G. H. Cant.

RIDING AND COACHING HORSES.

JUDGES.—J. Howard, M.P., Bedford.
R. Leeds, Castle Acre, Norfolk.
H. Thurnall, Royston.

Thoroughbred stallion.—Prize, £15, W. H. Bowtell, Elsenham (Little Ben).

Open to all England.—Prize, £25, Major Barlow, Haske-ton (Deerfoot).

Thoroughbred and halfbred.—Prize, £20, Major Barlow (Deerfoot).

Halfbred.—Prize, £10, F. Butcher, Colne Engaine (Young Morgan Lightfoot).

Yearling colt by a thoroughbred horse (open to all Eng-land.—H. D. Raincock (by Yellow Jack).

Hunters, light weight.—Prize, £10, J. Cassidy, Harlow (Villager). Highly commended, B. Sparrow, Gosfield Place (bay mare).

Unrestricted (open to all England).—Prize, £20, B. Sparrow (bay mare).

Weight-carrier.—Prize, £10, E. Cunliffe, Ongar (Silvertail).

Hackney mares, not exceeding fifteen one.—First prize, £6, W. Gilbey, Stanstead (Quadron); second, £4, J. J. Simp-son, Heybridge (chesnut mare).

Hackney gelding, not exceeding fifteen one.—Prize, £10, F. Rust, Good Easter (Shooting Star).

Hackneys, not exceeding fifteen two (open to all England).—Prize, £10, W. Gilbey, Stanstead (Quadron). Highly com-mended, J. J. Simpson (chesnut mare); G. D. Badham (Eclipse). Commended, H. G. E. Green, Colchester (The Brewer).

Four-year-old mares or geldings.—Prize, £7, B. Sparrow (bay mare). Highly commended, G. D. Badham (Baronet).

Colts or fillies, three or four years old (open to all England).—Prize, £10, J. Cassidy (Villager). Highly commended, G. D. Badham (Baronet), B. Sparrow (bay mare), and M. A. Free-stone (brown).

Three-years-old mares or geldings.—Prize, £7, J. Christy, jun., Roxwell (brown filly). Commended, W. Barker, Elm-stead (Maria Day), J. Christy (brown gelding), and A. Smith, Thaxted Lodge (Rob Roy).

Two-year-old mare or gelding.—Prize, £7, J. Archer, Saffron Walden (filly).

Yearling filly by a thorough-bred horse (open to all Eng-land).—Prize, £7, J. Clayden, Littlebury (by Cambuscan). Highly commended, J. Cassidy, Harlow (by Mainstone).

Half-bred yearling (by Mainstone).—Prize, £5, J. Cassidy. Mares and foals.—First prize, £10, W. Tipper, Roxwell (Lizzy); second, £5, P. Portway, Great Sampford (chesnut).

Cobs.—Prize £5, G. Saville, Wenden (bay mare). Com-mended, T. Newman (Peggy).

Weight-carrying cobs, above 4 years, and under 14 hands and a-half.—Prize, £5 5s., J. B. B. Elliott, Chesterford (by Strathmore). Commended, T. Newman (Great Bardfield).

Ponies, under thirteen hands.—First prize, £4, W. Clayton, Dunmow (Lucy Glitters); second, £2, J. Archer, Saffron Wal-den (cream).

CATTLE.

JUDGES.—E. Bowley, Cirencester.

J. Lynn, Croston, Grantham.
M. Savidge, Sarsden, Churchill Heath.

PURE SHORTHORNS.

Bull.—First prize, £15, J. Upson, Rivenhall (Monk); second, £10, Lieut.-Col. Erise, Spains Hall (Whipper-in).

Bull of any age (open to all England).—J. Upson, Riven-hall (Monk). Highly commended, Kersey Cooper, Ixworth (Hogarth 2nd).

Bull, two years old.—First prize, £12, J. Hutley, Rivenhall (King Lear); second £8, J. Christy (Duke of Brabraham).

Yearling bull.—First prize, £10, Lord Braybrooke (Heydon Duke); second, £7, R. H. Crabb, Baddow Place (Old Sam). Commended, C. Barnard (Diadem).

Yearling bull (open to all England).—Lord Braybrooke (Heydon Duke). Highly commended, Lady Pigot, Branches Park (Bythis).

Bull, not exceeding 12 months old, and not under 6 months.—First prize, £6, J. Christy, jun., Roxwell (Rosolio); second, £4, Lord Braybrooke (Santa Cruz).

Cow.—First prize, £12, J. Christy, Roxwell (Polyrose); second, £8, J. Clayden (Erigoue). Highly commended, G.

Frere, Royal Hull, Diss (Countess Sandor); J. Upson, Riven-hall (Lilac), and Lord Braybrooke (Memento).

Two-year-old heifer.—Prize, £10, R. H. Crabb, Baddow-place.

Yearling heifer.—First prize, £7, D. McIntosh, Havering, Romford (roan); second, £5, J. Christy, jun. (French Aster). Highly commended, J. R. Chaplin, Ridgewell (Charlie le Beau); J. Clayden (Gertrude). Commended, C. Barnard (Coronella).

Heifer not exceeding twelve months old, and not under six months.—First prize, £6, D. McIntosh (Charmier); second, £4, C. Barnard (Thorndale Sugar Plum). Commended, J. Christy, jun. (Anemone and Portulacca).

Bull cow and calf (open to all England).—Prize, £20, G. Kersey Cooper (Hogarth 2nd, Christabel, and Hogarth 3rd). Highly commended, J. Clayden (Captain Knightly, Erigone 2nd, and roan twins).

Yearling bull and pair of heifers.—Prize, £20, Lady Pigot (Bythis, Maldina 2nd, and Dame). Highly commended, T. Garne and Son, Churchill Heath, Northleach (Rolla, Nectar, and Pattern), and Lord Braybrooke (Heydon Duke, Grand Duchess of Oxford 2nd, and Keepsake).

SHORTHORNS WITHOUT PEDIGREE.

Cow.—First prize, £8, R. Marking, Saffron Walden; second £5, W. Bott, Broomfield.

Heifer, two years old.—First prize, £6, J. Upson (The Sort).

Yearling heifer.—First prize, £5, J. Upson, and second, £3.

DAIRY CATTLE.

Cow or heifer.—First prize, £8, J. Weston Morris (Chig-well); second, £5, C. M. Wade, Saffron Walden (Buttercup). Highly commended, W. Gilbey, Stanstead (Curfew).

FAT CATTLE.

Ox or steer, not exceeding three years old.—Prize, £5, J. R. Chaplin, Ridgewell (steer).

Cow or heifer.—Prize, £5, J. Archer, Saffron Walden. Commended, J. Clayden (Jessamine).

OTHER PURE BREEDS.

Bull.—Prize, £5, Lord Braybrooke (Chesham).

Two-year-old bull.—Prize, £5, W. Gilbey (Dolphin 2nd). Highly commended, J. Clarke, Saffron Walden.

Cow.—Prize, £5, W. Gilbey (Ban), and highly commended (Victoria and Mus). Commended, Lord Braybrooke.

Two-year-old heifer.—Prize, £4, W. Gilbey (Banshee). Highly commended, W. Belcher, Chelmsford (Lord Boreham). Commended, J. Clarke.

Yearling heifer.—Prize, £4, C. Swann, Colchester (Suffolk). Highly commended.—J. L. Taylor, Saffron Walden (Alderney).

ALDERNEY, JERSEY, OR GUERNSEY.

JUDGES.—J. Game, Watford.

Major Wilson, Stowlangtoft.

Bull, over twelve months old.—First prize, £10, J. R. Vaizey, Attwoods, Halstead; second, £5, W. Gilbey (Ban-bury). Commended, Lord Braybrooke (four years old).

Cow over three years old.—First prize, £10, W. Gilbey (Ban); second, £5, Lord Braybrooke (Torchlight).

Heifer under three years old.—First prize, £10, W. Gilbey (Banshee); second, £5, J. L. Taylor. Highly commended, W. Gilbey (Curfew).

SHEEP.

JUDGES (and for pigs).—T. Horley, jun., Leamington.

W. Sanday, Radcliffe on-Trent.
J. Turner, Seaford, Sussex.

Southdown ram.—First prize, £10, and second, £5, Lord Braybrooke.

Ram of any other short-wooled breed.—First prize, £8, J. Green (black-faced Suffolk); second, £4, P. Portway (Suffolk Down).

Short-wooled ram (open to all England).—Lord Bray-brooke. Highly commended, C. Boby.

Shearling Southdown ram.—First prize, £10, and second, £5, Lord Braybrooke.

Shearling short-wooled ram, any other pure breed.—First prize, £8, J. Green, Shadishall (black-faced Suffolk); second, £4, P. Portway (Suffolk Down).

Pen of five pure shearling Down ewes.—First prize, £6, Lord Braybrooke; second, £4, S. Jonas, Chrishall Grange.

Pen of five shearling short-wooled ewes.—First prize, £5,

Nockolds and King, Saffron Walden; second, £3, W. Thompson, Thorpe.

Cotswold, Lincoln, or Leicester ram.—Prize, £7, J. Giblin, Little Bardfield.

Oxford or Shropshire ram.—Prize, £7, J. Giblin, (Oxford Down), and highly commended and commended.

Long-woolled ram (open to all England).—Prize, £10, J. Giblin (Cotswold).

Shearling, Cotswold, Lincoln, or Leicester.—Prize, £8, J. Giblin (Cotswold).

Shearling, Oxford, or Shropshire ram.—Prize, £8, J. Giblin (Oxford Down).

Pen of five shearling long-woolled ewes.—Prize, £5, J. Giblin.

Pen of five ewes and lambs.—First prize, £6, J. Giblin. Highly commended, J. Archer, Saffron Walden.

Pen of 5 shearling short-woolled wethers.—First prize, £5, Nockolds and King; second, £5, Lord Braybrooke. Highly commended, H. Sworder, Hallingbury. Commended, H. Trigg.

Pen of five fat Hampshire Down shearling wethers.—First prize, £5, Nockolds and King; second, £3, H. Sworder. Commended, H. Trigg.

Pen of five shearling crossbred or long-woolled fat wethers.—First prize, £5, J. Spencer, Clavering; second, £3, J. Rolfe, Wenden, Saffron Walden.

PIGS.

Boar, large breed.—Prize, £5, C. Sturgeon, South Ockendon (Berkshire).

Boar, large breed (open to all England).—Prize, £10, Duckering and Son, Northorpe, Lincoln (Cultivator 6th).

Boar, large breed, not exceeding 12 months old.—Prize, £5, Lord Braybrooke (Berkshire).

Boar, small breed.—Prize, £5, G. D. Badham, Bulmer (Young Whersted).

Boar, small breed (open to all England).—Duckering and Son (The Hermit).

Sow in pig.—First prize, £5, Lord Braybrooke (Improved Essex); second, £3, G. Griggs, Romford (Queen Bess). Highly commended, Lord Braybrooke.

Sow, large breed (open to all England).—Prize, £5, Duckering and Son (Princess Royal).

Sow, small breed (open to all England).—Prize, £5, Duckering and Son (Lily). Highly commended Lord Braybrooke (Essex).

Sow, with pigs; pigs not to exceed 12 weeks old.—First prize, £5, G. D. Badham (Jane); second, £3, D. R. Emson, Wimbish (Improved Essex).

Pen of 3 sow pigs, of the same litter, under 9 months old.—First prize, £5, Lord Braybrooke; second, £3, G. Griggs, Romford (The Three Sluts).

VETERINARY INSPECTOR.—Professor Simonds.

IMPLEMENTS.

JUDGES.—W. Impey, Branfield.

F. Whiteloch, Yeldham.

Collection of implements, being the *bona fide* property of the exhibitor.—The prize of £9, Ward and Silver, Melford, Suffolk.

Collection of implements, manufactured in Essex, the exhibitor being the manufacturer.—The prize of £8, Davey, Paxman, and Davey, Colchester.

HANTS AND BERKS AGRICULTURAL SOCIETY.

MEETING AT BASINGSTOKE.

The show of cattle was a great improvement upon former exhibitions, not only as regards numbers, but likewise in quality. The sheep stock was very good, particularly in the Hampshire Down classes. The Down rams in the aged class were fair, but no better than we have often seen them. The ewe tegs were worthy of especial notice. The ewes altogether may, however, be considered the best of the show, but the ram lambs exhibited were in fine condition as taken from the flock, and were certainly very meritorious, and indicated the excellence of the flock, from which they were drafted. In the classes where different breeds competed there were some very good specimens of the mixed breeds, and we especially noticed the ewe tegs of a long wool breed exhibited by Mr. Atkins, as being of great size and weight for age, and also the Shropshires.

The Shorthorn classes were creditably contested for a local show. The aged bull class was well filled; and it is worthy of note that the second-prize animal, although entered in the wrong class, yet took the second prize, his own sire taking the first. The Alderney cows were not very commendable. The show of horses was good. The pigs were fairly represented, but there was nothing worthy of special comment. The entries of poultry, pigeons, and rabbits were numerous, and the poultry was of a superior class. The show of agricultural implements was on a larger scale than usual.

P R I Z E L I S T .

CART HORSES.

JUDGES.—J. B. Spearing, Reading.

W. C. Spooner, Eling, Southampton.

J. White, Odiham.

Stallions.—First prize, £5, R. Grinham, Shalden, Alton; second of £2 10s., T. W. Habin, Chichester, Sussex,

Two-year-old stallions.—First prize, £3, R. Grinham; second of £1 10s., W. Goring, Hook, Winchfield.

Mare and foal.—First prize, £5, J. H. Morgan, Basing; second of £2 10s., Lord Ashburton.

Cart mares.—First prize, £5, J. Atkins, Bishopstoke; second of £2 10s., A. Budd, Overton.

Three-year-old filly.—First prize, £3, J. Stubbs, West Tisted, Alresford; second of £1 10s., E. Cobden, Preston, Candover.

Two-year-old filly.—First prize, £2 W. Follett, Pamber; second of £1, E. Cobden.

HIUNTERS.

JUDGES.—The Earl of Portsmouth.

W. H. Deacon, Ropley, Alresford.

Sir Paul Hunter, Beech Hill, Reading.

Mare or gelding four years old and upwards (jumping the point of merit).—First prize, £5 5s., R. P. Fitzgerald, Preston, Candover; second of £3, A. Booth, Sydmonton.

CATTLE.

JUDGES.—J. B. Spearing.

W. C. Spooner.

James White.

Shorthorn bull.—First prize, £5, John Atkins, Bishopstoke; second of £2, Richard Soffe, Ham Farm, Winton.

Bull of any other breed.—First prize, £3, Geo. Deller, Greywell; second of £2, John Turvill, Hartley, Alton.

Two-year-old bull of any breed.—First prize, £3, H. Armstrong, M.D., Peckham-house, Peckham; second of £1 10s., H. E. Raynbird, Basing.

Yearling bull.—First prize, £3, Wm. H. Dunn, Standen-house, Hungerford; second of £1 10s., John Atkins, Bishopstoke.

Cow in milk of any breed.—First prize, £5, J. Aubrey Mumford, Chilton Park Farm, Thame; second of £2 10s., J. Turvill; third of £1, J. Aubrey Mumford.

Heifer above two years old and under three years old—

First prize, £2, John Atkins; second of £1, H. E. Raynbird, Basing.

Heifer under two years old.—First prize, £2, W. Nicholson, M.P., Basing Park, Alton; second of £1, H. E. Raynbird.

Cow of the Channel Islands breed.—Prize of £3, Edward Curtis, Dunmer.

PIGS.

JUDGES.—J. B. Spearing,
W. C. Spooner,
J. White.

Berkshire boar.—First prize, £3, H. Humfrey, Kingston Farm, Shrivensham; second of £2, J. H. Clark, Altwood Farm, Maidenhead; third of £1, the Marquis of Ailesbury Savernake.

Berkshire breeding sow.—First prize, £3, H. Humfrey; second of £2, J. H. Clark; third of £1, the Marquis of Ailesbury.

Boar of any other breed.—First prize, £3, W. H. Dunn, Standen House, Hungerford; second of £2, W. A. Box, Basingstoke.

Sow of any other breed.—First prize, £3, J. Wheeler, Long Compton; second of £2, R. Solfe, Hams Farm, Winchester.

Boar of any breed under six months old.—First prize, £3, H. Humfrey; second of £1, J. H. Clark.

Sow of any breed under six months old.—First prize, £3, H. Humfrey; second of £1, J. H. Clark.

Boar of any small breed under nine months old.—Prize, £3, J. Wheeler, Long Compton.

HAMPSHIRE OR WEST COUNTRY DOWN SHEEP.

JUDGES.—H. Bone, Avon, Ringwood.
H. Fooks, Abbey Newton, Blandford.
Edmund Olding, Woodford Cottage, Salisbury.

Ewe tegs not having been separated from the flock.—First prize, £10, Jame Crimble, Overton; second of £5, W. E. Fitt, Littleton, Winchester.

Ewe tegs without restriction as to separation.—First prize, £6, John Barton, jun., Hackwood Farm; second of £3, John Palmer, Cliddesden.

Ewes of any age.—First prize, £5 5s., John Palmer, Cliddesden; second of £2 10s., F. S. Schwann, North Houghton, Stockbridge.

Rams of any age.—First prize, £5, James Rawlence, Bullbridge, Wilts; second of £2 10s., Stephen King, Bockhampton, Lamborne.

Shearling rams.—First prize, £10, A. Morrison, Fonthill House, Tisbury; second of £5, Stephen King, Bockhampton; third, £3, S. King.

Ram lambs.—First prize, £5, G. Edney, The Manor, Whitechurch; second of £3, Thomas Moore, Viabes Farm, Basingstoke.

Hampshire Down ram lamb.—First prize, £10, A. Morrison; second of £4, A. Budd, Overton.

Rams of any age, not having been housed since the 1st day of October last.—First prize of £5 5s., James Rawlence, Bullbridge; second of £2 2s., W. Lunn, Whitechurch.

Ewe lambs.—First prize, £3, F. S. Schwann, North Houghton, Stockbridge; second of £2, John Palmer, Cliddesden.

SHEEP OF ANY OTHER BREED.

Rams of any age.—First prize, £5, Earl of Portsmouth; second of £2 10s., John Wheeler, Long Compton, Shipston-on-Stour.

Shearling lambs.—First prize, £5, Earl of Portsmouth; second of £2 10s., A. F. M. Druce, Burghfield, Reading.

Ram lambs.—First prize, £2, Charles Barton, Sherborne St. John; second of £1, Mrs. Clift, Sherborne St. John.

Ewe lambs.—First prize, £2, John Atkins, Barton Peveril, Bishopstoke; second of £1, Mrs. Clift.

Ewes of any age.—First prize, £2, and second of £1, John Atkins.

Ewe tegs.—Prize, £2, Henry Wood, Pucknell Farm, Romsey.

SHROPSHIRE DOWN SHEEP.

Ram of any age.—Prize, £5, H. Wood.

EXTRA STOCK.

One ewe and twin lambs.—Prize, £1, J. Moore, Littlecott, Pewsey.

THE UTILIZATION OF BOG LAND IN IRELAND.

At the monthly meeting of the Council of the Royal Agricultural Society of Ireland in Dublin on Thursday, the Hon. CHARLES FRENCH, the chairman, read the following letter:

London, 12, De Beauvoir-square, N., June 15, 1870.

Dear Sir,—I have recently visited Ireland for the purpose of obtaining information as to the practicability of reclaiming the bogs of Ireland, as proposed by Mr. Samuel Morley, M.P. for Bristol, in an amendment he intended to move to the Land Bill. During my sojourn I had the pleasure of spending a few days at the Castle at Geashill with Mr. Trench, one of the members of your Society. Mr. Trench, without being opposed to the reclamation of the bogs, is one of those who think that much of good would be the result if the peat of the bogs could be cheaply converted into portable fuel, both for domestic use and for exportation. He suggested, therefore, that it might be well if a prize were offered through the Royal Agricultural Society of Ireland for the best essay or invention for utilizing in the most economical way the waste fuel of the bogs, with other prizes for the second and third best. I have submitted this proposition to Mr. Morley, and I am authorized by that gentleman to say that he will have pleasure in presenting the sum of £100 for that purpose, provided the Royal Agricultural Society will present another £100, so that £100 may be given for the best, £75 for the second best, and £25 for the third best. In order to make the prizes more worthy of the attention of the best men of science, and in order to bring all the more honour and influence to bear upon the subject, I would respectfully suggest that the Royal Agricultural Society should present £100, and that the Royal Dublin Society should be asked to present another £100. In such case the first prize might be £150, the second £100, and the third £50. I shall write to Dr. Steel by this post to the like effect, and I

shall be very happy to learn that the proposition meets with the cordial approbation of your Society.

I have the honour to be, dear sir, your faithful servant,

H. BROOKES.

The Secretary, Royal Agricultural Society of Ireland.

The CHAIRMAN said that Mr. Brookes had called upon him, and he (the chairman) had explained to him that the only way of reclaiming the bog land was to cut it away. The ground he (Mr. Brookes) went upon was, that a machine could be got for utilising the peat.

Sir ALLAN WALSH said there had been numerous companies established in Ireland for the purpose of utilising peat, and they had all failed.

The CHAIRMAN said that he saw by a scientific paper that a machine had been invented in America that had been found most successful in utilising the bog land. It was a moveable Archimedian screw, which pressed the bog together and formed it into cakes. If they succeeded in America it might be worth trial here; but he thought they had no funds to spare for the purchase of a machine of this kind. As to pressing the water out of the turf without pressing the fibre out also, he thought that could not be done.

Mr. DONNELLY thought it a pity that such an offer could not be availed of. He would be glad to subscribe £1 himself, and he was the more easily induced to do so by the chairman's statement of the success of the machine in America. They should communicate with the Royal Dublin Society before rejecting this offer. They had not funds to devote to this purpose, but he thought that perhaps the members would subscribe at least £50 for the purpose. He was sure that fifty members would subscribe.

The following towns are about to apply their sewage for irrigation, or they contemplate doing so:—

Towns.	Population discharging into sewers.	Area of land to be irrigated. Acres.	Character.	Additional land.	
W.-C. general.					
Tunbridge Wells.....	12,800	123	.....	170 acres.	
Sarabon.....	7,100				
Kingston-on-Thames.....	12,000				
Nottingham.....	86,000				
Inverness.....	19,000?		Light loam.		
Perth.....	16,000		Sandy.		
Aberdeen.....	60,000				
Norwich.....	57,000	700	Light.	500 "	
Skipton.....	5,500				
Reigate.....	9,000				
Aylesbury.....					
Evesham.....					

At Tunbridge it is stated that the application of the sewage for irrigating land would be almost impossible, and the local authorities believe all trials that have been made to apply sewage in this way are failures, and a source of dissatisfaction on account of nuisance and expense. Lincoln is also said not to admit of this application of sewage. At Cambridge the subject is under consideration. Comparing the extent of land irrigated and the population discharging into the sewers at the places above named, it appears that in the case of Birmingham there is only $\frac{1}{4}$ of an acre per 1000 of population; at Edinburgh there is 1.7 acre per 1000; at Carlisle, Bedford, and Chorley there is from 3 to 3.5 acres; at Harrow, Reigate, and Chelmsford there is from 5 to 6.6 acres; at Epsom, Rugby, and Malvern from 7.5 to 10 acres; at Tunbridge Wells, Banbury, and Norwich, from 10 to 12 acres per 1000. There does not appear to be any provision in most cases for additional land for irrigation except at Carlisle and Norwich. At Chelmsford there is some, but it is too high to be reached; and at Tunbridge Wells the purchase of additional land is contemplated. At Carlisle, Reigate, Epsom, Inverness, and Tenterden, the land selected for irrigation is situated within the district under control of the local sewer authorities, at a distance of from one-fifth of a mile to half a mile from the centre of the town, and within a quarter of a mile of the outskirts. At Edinburgh, Bedford, Rugby, Chelmsford, Harrow, Skipton, Norwich, Perth, and Bury St. Edmunds, it is outside the district, at a distance of from half a mile (Perth) to 3 miles (Norwich) from the centre of the town, and from half a mile (Bury St. Edmunds, Harrow, Chelmsford, Bedford) to 1 $\frac{1}{4}$ mile (Norwich) beyond the outskirts; at Birmingham, Chorley, Braintree, Banbury, and Malvern, the land is partly within and partly outside the district under the sewer authorities. The distance of the irrigated land from the lowest sewer-outlet of the town varies from 100 yards to upwards of a mile. In some cases land has been purchased, as at Harrow, Reigate, and Tunbridge Wells; but in most cases it has been leased. Sometimes it is occupied by the sewer authorities, sometimes let to a farmer, as shown in the accompanying Table, which shows also the mode of delivery to the land by gravitation or pumping, and other details.

Name of Town.	Distance of irrigated land			Irrigated land has been	Occupation of the irrigated land		Sewage applied to land
	from the centre.	from the town outskirts.	from the lowest sewer-outlet.		by the sewer authorities.	let to farmers.	
Edinburgh.....	1 mile.	.....	.....	.....	.....	.....	.....
Bedford.....	1 $\frac{1}{2}$	.....	.....	.....	.....	.....	.....
Rugby.....	1 $\frac{1}{2}$	.....	.....	.....	.....	.....	.....
Chelmsford.....	1 $\frac{1}{2}$	.....	.....	.....	.....	.....	.....
Harrow.....	1 $\frac{1}{2}$	.....	.....	.....	.....	.....	.....
Skipton.....	.....	.....	.....	.....	.....	.....	.....
Norwich.....	3	.....	.....	.....	.....	.....	.....
Perth.....	.....	500 yds.	.....	.....	.....	.....	.....
Bury St. Edmunds.....	.....	.....	1 $\frac{1}{2}$	.....	.....	.....	.....
Birmingham.....	.....	.....	150 yds.	.....	.....	.....	.....
Chorley.....	.....	.....	100	.....	.....	.....	.....
Braintree.....	.....	.....	600	.....	.....	.....	.....
Banbury.....	.....	.....	.....	.....	.....	.....	.....
Malvern.....	.....	.....	.....	.....	.....	.....	.....
Carlisle.....	.....	.....	.....	.....	.....	.....	.....
Reigate.....	.....	.....	.....	.....	.....	.....	.....
Epsom.....	.....	.....	.....	.....	.....	.....	.....
Inverness.....	.....	.....	.....	.....	.....	.....	.....
Tenterden.....	.....	.....	.....	.....	.....	.....	.....
Within.....	.....	.....	.....	.....	.....	.....	.....
Partly within.	.....	.....	.....	.....	.....	.....	.....
Without.....	.....	.....	.....	.....	.....	.....	.....

At most places the application of the sewage to land has been found to exercise a most beneficial influence on the condition of the streams and rivers receiving the drainage of the district. At Epsom there was some damage done to the Hog's Mill River, but no complaint is now made. Even where only the solid portion of the sewage is separated by filtration or precipitation, the state of rivers receiving the discharge is to some extent improved. At Northampton an application for an injunction has been made by a miller resident on the stream. Generally speaking no objections appear to have been made to the application of sewage for irrigation; and where such objections have been urged, on the ground that the application was offensive and injurious, they do not appear to have been supported by medical authority, and in several instances they have ceased. As regards the sanitary condition of these districts, it appears that in most cases the application of sewage for irrigation has not been attended with any apparent change; but there is said to be a marked improvement at Braintree.—*From the First Report of the British Association Sewage Committee,*

THE SUFFOLK AGRICULTURAL ASSOCIATION.

MEETING AT SUDBURY.

With a "welcome to the ancient and loyal town of Sudbury," the associates made it the fixture for their fortieth annual meeting, which we are glad to proclaim a success. That the Society through mere lethargy had a tendency to recede instead of advance there is no denying, as it was no lack of liberality on the part of the county; for no sooner did some of the committee, like the Buffs and Blues of the ancient and loyal borough of Eatonswill, display a little devotion to the cause, and become "energetic" in a canvas for prize money, than their call was freely responded to and the premiums doubled. The show-field was close to the town, and the arrangements good, with the animals nicely protected from the heat; and in this respect they had decidedly the best of the lookers-on, as the sun made one "the colour of the nutmeg and as hot as ginger." Then the prizes in the shedding were duly posted, so that those who could may read; in fact, it only wanted some poor fellow in the horse-ring with eighteen-pence a-day and his board to hoist the numbers of the winners on to make the thing perfect; for it is not everybody that has an eye for colour, more especially if the rosette happens to be on the opposite side of the horse's head. In adjoining rings on the level and of fair dimensions were Sir Thomas Lennard and Messrs. Wake and Blake, three very fair performers across country, and chosen to preside over the merits of the riding and coach horses; while Messrs. Clayden, Sewell, and Giles, considered to have an eye to the form of a team, gave verdicts in the agricultural classes. The strongest part of a Suffolk show is its Punches—the famed "sorrel" cart horse; "for in my younger days," said an ancient agriculturist, "we never called them chesnuts;" and again, "but we had not such grand horses as these." Grand as they are and free in their movements, for thankful are we that the prejudicial stickers to old fashions and forms, who always think as their fathers thought, are so far vanquished that we seldom see in a showyard one of the drooping-headed tumble-down dead-puller sort, with his scapula or blade-bone pointed for the ear—or in the words of the antiquated, "all his weight by nature thrown into the collar." But the improved Punches have their faults; in fact, the Suffolk breeders, like bad bakers, have paid more attention to the tops than they have to the bottoms. Their horses are overtopped, small and tied at the knee, and many with feet adapted for anything but supporting their weight. A Suffolk not faulty in the forelegs is a rare exception, from which even the grand Matchett is not free. But, with all their faults, we love them still; and as these deficiencies run more in some strains than others, we think, with judgment and careful crossings, these eyesores to a lover of form may to a certain extent at least be corrected. But here is the lengthy, double-backed, flat-sided, free-moving Harwich Emperor, just awarded the £20 in the class of eight, including Mr. Badham's useful, good-limbed Great Eastern, and his Hercules, the well-made Monarch of Mr. Wolton's, and Mr. Boby's good-looking Royal Prince by his Conqueror. Conqueror we call to mind as a deformity at Framlingham in '68, when with Harwich Emperor he had to succumb to Cupbearer, a compact really good-made one of the late Mr. Crisp's, now in the stable of Messrs. Garrett, who gave a twenty-guinea prize here for the best

foal by him, the best turning up in one bred by Crisp's executors, as this also proved to be the best foal in the open class. In a good lot of mares the dam of the Cupbearer foal, a low mare of character, played second to Mr. Wolton's Moggy, the winner of many prizes, her fine form being made more conspicuous among the reds by her dark chestnut coat. Mr. Grout, the well known dealer and exhibitor from Woodbridge, in a good class of yearling entire colts, was to the fore with a Harwich Emperor, while Young Emperor, by Harwich Emperor, was pronounced the best two-year-old entire colt, and eventually awarded the cup as the best stallion in any class, as not only better than the flat-sided old gentleman, but better than Mr. Wilson's rich-coloured, fine-grown colt, by Monarch, and the prize two-year-old of Saffron Walden and Harleston. There were many who differed with this verdict, but it is one in which we entirely coincide, as the colt is a deep, compact, well-built, good-limbed, active-looking horse, though a little stronger shoulder might improve him. There were only two three-year-old entire colts put in for the two prizes, the first being a big one and no mover, while the second had length and quality on a short leg, and another of the condemned flat-sided Emperor's progeny. In a capital class of "gast" mares, a word we should have thought as obsolete as sorrel, the grand Matchett takes her usual place, admired by all Suffolk; so plump and Punch-like is she all over, so even and so true from any point of view, that an owner of a stud of racing pigs and a reverend judge look on her with delight, while another of the porcine tribe evidently contemplates her with an eye to a model. There were a few nice three-year-old fillies, Mr. Wolton playing first with one called Smart, and Colonel Tomline with another of the same name. After this we should suggest that they be christened in the prevalent bull fashion, Smart the First and Smart the Second. The Capon executors two-year-old filly, who was second at Harleston to a fine filly of Mr. Wolton's, with hocks so near together as not to part with sixpence, was here, with the turn of the tide in her favour, first, while the cow-hocked one was not even placed; so much for a land of liberty and the freedom of opinion. A high-crested yearling filly, and a winner at Saffron Walden, was, with seven other fair-formed candidates nominated for the Member of Bury's guineas, returned at the head of the poll. Mr. Wolton's pair of handsome mares, Diamond and Doughty, distanced a pair of leather-plating looking bays of Mr. Jennings, of Newmarket; and then with a capital team of four, Victory, Princess, Moggy, and Scott, upset the pretensions of a very decent string from the Newmarket stable.

Although steam and the telegraph have brought all the world together, and a man now takes his ticket from London Bridge to the Antipodes with half the fuss, and only a percentage of the great-coats, rugs, and wrappers, that he did to engage the box-seat to Sudbury, yet we are still as fond of our riding horses and roadsters' form and pace as ever. This love of the nag, or "everybody's horse," is seen at the agricultural shows by the numbers of all sorts and conditions of men that swarm round the ring. Why here is even old Milo, with his mellow elastic touch, who has deserted the edge-bone and the judges

over the grand bull class, while Ploughshare turns his back on the agricultural bench and gast mares, and here come Longwood and Shortwool Berkshire, Large and Small, with all the ladies pall mall, as the thoroughbred nags make their appearance. But there is only one stallion here for the two prizes for those calculated to get hunters. It is a walk over, and Deerfoot in Kiugcraft's colours—black and white—goes dancing round the ring, looking some pounds heavier than he did when victorious at Saffron Walden. There, alone in his glory, in an extra class, is the light bay Volunteer, by Alarm, one of Deerfoot's opponents at Saffron Walden, and who we then put down as a horse calculated to get machines. With three half-breds to oppose him in the coaching stallions, is another thorough-bred, Donald Caird by Annandale, a draft from the Husketon stud, and a prize taker, as King of the Dales at Framlingham in 'sixty-eight. But why change his name? No animal who has a pedigree in a Stud Book or Herd should be re-christened without some particularly good reason. Donald is a big horse, fit for the purpose, and as he bends his knee as a coacher should, took the red ribbon and ten, after deducting expenses, to Flixton. Following up Sir Shafto Adair's victory, the Duke of Hamilton, with a very handsome pair of rather cobby dappled browns, defeated a weedy couple of bays, of Mr. Ogilvie's, for the cup for carriage or phaeton purposes. There were only three hunting mares with foals entered, the winner being a short-legged provincial-looking hunter of some character but lacking breed; while the dam of the prize hunting foal, Sir Shafto Adair's Gem, is a hollow-backed chestnut of great quality and good limbs, of Irish extraction, and Mr. Barton's Topsy but a clever-looking cobby hackney. The Marquis of Westminster's roan hackney is a mare that Mr. Branwhite, who now and then sends some nice cobs to Knightsbridge, won a prize with at the Royal Battersea meeting. She is a very nice one, and perfect, with the exception of her knees being a little too back and high from the ground. The Bury prize roadster Gipsy was also in, a well-known prize taker of Royal Barlow's, and full of character, though age in sharp angular lines begins to tell on the wasting frame of the game-looking varmint old mare. Sir Shafto Adair had a thick-set roan of good form, and the Duke of Hamilton a bay mare called "Sewell," we should fancy after the well-known dealers of Prince's Row, whose foal was proclaimed as the best. Eclipse, with some of his fat off, went more airy, showing himself to advantage, and beating Kitty, a well-made mare, with her legs nicely placed. Mr. Badham having recovered from his set-to with the Comet, was on his old favourite Major, who looks as well as ever, and as white as snow.

There was a poor class of three-year-old hackney mares, with the exception of Attraction, and in the two-year-olds only three, the winner turning up in a strong-made iron grey, from Bowbeck. In a fair class of yearling hackneys, Mr. Grout won with a promising one by his horse Quicksilver, the reserve number being a nicely-made roan of Mr. Branwhite's. Mr. Grout was again to the front with his ladylike Nelly, beating a nice grey from Captain Bence's stable. Mr. James, Allen, Catchpole, Nathaniel Ransome, better known as Mr. Allen Ransome both in the manufacturing and the horsey world, came off with flying colours with his very handsome Islington prize pony, Perfection, although it was scarcely fair to show a stallion with mares and geldings. Tomtit was proclaimed the king of the little ones. For a local show there was a very fair exhibition of hackneys, though among the hunters the good ones were few and far between; but then Suffolk is not famous as a hunting country, or, if so, the owners take particular care to keep the best under lock and key. The first prize hunter,

Fenian, at a side view is a rather taking horse, but not up to much weight, while he is a sprawling mover, going so wide behind that he would scarcely find room in some of the Suffolk lanes to indulge in what we suppose was meant for a gallop. Mr. Sparrow, of Halstead, showed a bay mare of breed with a fired hock that could move. Then, the Duke of Hamilton's Turk had some form, as had a grey of Mr. Bryant's, of Ipswich. Mr. Grout's chestnut, by the Ace of Clubs, who was commended in a large class at Islington, here beat Mr. Badham's Baronet and four or five others, while Mr. Mumford with another well-made one by the Ace came in for a cup in a class of seven. The member for Bury, with a two-year-old chestnut by Musketeer of good form and a fine drooping quarter, beat a three-cornered one of Mr. Sparrow's. Peru is a lengthy low horse, showing breed and character, who only wants a little setting to rights to make him very hard to beat; he was here the pick in a lot of seven, including Mr. Sparrow's bay four-year-old by Frogmore that took several prizes at Saffron Walden, and another of Mr. Harvey's, of Tinworth; also The Queen of Clubs, a strong made one, but not exactly hunting form, of Mr. Mumford's; and Brunette, a very neat light made mare of Major Barlow's, that won the Prince of Wales's Cup, at Harleston. The judges rode some of them, but Brunette, in strange hands, did not settle down in her paces kindly. The prize horses were paraded during the day, while there was a wind-up with some jumping to amuse the ladies, and, judging by the beaming smiles that played over the features of the fair occupants of the grand stand, and the buzzes of delight that were ever and anon wafted across the yard, this must have been a great success!

The weak part of the show was the cattle, there scarcely being a shorthorn cow in the yard; and for the bulls, Monk had it all his own way with half-a-dozen fair animals pitted against him, Mr. Crabbe's Old Sam coming in for a high commendation. Hogarth the 2nd and some others from the Bowbeck herd through error were not entered in time, and their absence was very palpable in so small a show. Mr. Catchpole's Buttercup, the cup cow, is an ordinary cow, of a taking colour, with not a good head or eye, or anything very wonderful about her, and taking into consideration the ages of Buttercup and Daisy and the quality and symmetry of the second, we should have been more pleased had the decisions been reversed. The Shorthorn heifer had quality and form, with nothing to oppose her. There were several very beautiful specimens of the Polled Suffolk, both male and female, and the judges honoured the lengthy well-made Cherry Duke with the cup for the best bull of any age in preference to The Monk, who did not look in high form. As they did this with the Suffolk bull, surely they might have given the beautiful Duchess the cup in preference to Buttercup if form or quality have anything to do with it. The pure-bred Devon of Mr. Rodwell's was as ugly a specimen as we ever saw. There were something like a score of Alderneys, with some very pretty ones among them, the Rev. M. Shaw exhibiting eight out of the twenty. There was a good show of sheep for Suffolk—Lord Braybrooke in the Southdown tups being opposed by three entries of the Marquis of Bristol's, two of Mr. Boby's, two of Colonel Tomline's, and one of Lord Sondes'. In the shearing tups Mr. Boby, with three entries, defeated three of the Elmham flock, and one each from the Audley End and Orwell flocks. Then in the shearing ewes, Colonel Tomline beat pens from Audley End, Elmham, and Ichworth Park. In blackfaced tups, or the Suffolk, Mr. Green, with a coarse uneven one, beat Mr. Dobito and Mr. Woodgate. For shearing tups, Mr. Green with four strings to his bow

upset Messrs. Dobito and Woodgate's pick. Mr. Gazeley won with a very nice pen of shearing ewes, opposed by some of Mr. Dobito's. In the longwools, with some fine specimens of the Cotswold, the judges reversed the Harleston decision by placing Mr. Giblin's sheep before Mr. Brown's, and in the shearing tups placed Mr. Brown's second sheep before his Norfolk first! We believe Mr. Brown objected to the shearing of Mr. Giblin's sheep before the judging commenced. In short wool lambs the judges preferred the blackfaced Suffolks to the Hampshire and Southdowns. There was an excellent show of pigs from the sties of Messrs. Sexton, Stearn, and Duckering, names that are household words in the piggery, and who run in and out, first, second, or third at the different meetings, like George the Fourth, Mr. Graham, or John Scott. Mr. Wilson and the Rev. W. Holt Beever were asked to pick out the best—the former a large buyer, and the latter a true lover of form in the horse, shorthorn, sheep, or pig, and a breeder of all. They commenced with the boars of the black breed, and Kingcraft repeated his Norfolk victory, Mr. Stearn being well-up with The Parson, M'Gregor from Sexton's stud getting highly commended. Then a black sow and pigs of Mr. Stearn's, by King Tom, walked over. In the breeding sows Mr. Sexton had Sunshine—that was beaten at the Harleston Meeting by Mr. Duckering's Black Bess—a most excellent pig, with which the judges had no fault to find. They are both capital, and as the judges had to pick one, the preference was given to Sunshine. These racing names remind us of many a dead heat; and it strikes us as rather extraordinary when animals come together so equal in merit, that there are not oftener dead heats in the show yard, and the prize or two prizes put together and divided. Mr. Wolton's pen of three young sows of the black breed was a walk over, there being no other entry. In the white boars Mr. Stearn beat Mr. Sexton's Norfolk prize pig, which was second, while he was highly commended for another. Then the Comet, who is now looked on as the Cruiser of the pigs, is very good before, but falls off lank and lean in the hind quarters. Mr. Petit, with a very nice sow and pigs of the Sexton breed, beat a very good-looking lot of Mr. Stearn's, while, for real beauty or perfection, the pig of the show was the breeding sow Our Mary Ann of Mr. Sexton's, who vanquished Mr. Duckering's Lily, sister to Little Queen, that has taken prizes from the Land's End to Harleston, in Norfolk; but Lily is not equal to Little Queen, and is as different in the snout as a Hottentot from the Venus de Medicis. The three young sows of Mr. Sexton's were excellent, in fact, from the three piggeries they were all good, and no doubt they will fight their battles over again at Oxford; where, if we were to prophesy, we should say Our Mary Ann would be a very good investment for a place.

P R I Z E L I S T.

H O R S E S

FOR AGRICULTURAL PURPOSES.

JUDGES.—J. Clayden, Littlebury.
D. Sewell, Beaumont Hall.
H. Giles, Croxton, Thetford.

Stallion, having served 20 mares in the county.—First prize, £20, Isaac Rist, Tattingstone (Harwich Emperor); second, £10, C. Boby, Stutton (Royal Prince).

Three year old entire colt.—First prize, £15, J. Ward, East Mersea; second, £5, Colonel Tomline, M.P., Orwell (The Earl).

Two year old entire colt.—First prize, £15, and cup value £15, I. Rist (Young Emperor); second, £5, N. Catchpole, Ipswich (Emperor).

Yearling entire cart colt.—Cup, value £10, J. Grout, Woodbridge. Highly commended: S. Wolton, Newbourn.

Mare with foal at foot.—First prize, £15, S. Wolton (Moggy); second, £5, executors of the late T. Crisp, Butley Abbey.

Foal of 1870.—First prize, £8, Executors of T. Crisp; second, £4, A. J. Smith, Sutton.

Foal by Cupbearer.—Cup, value £21, executors of T. Crisp. Gast mare.—First prize, £10, and cup value 10 guineas, T. Capon (Matchett); second, £5, Major F. Maitland Wilson, Stowagtoft (Empress). Highly commended: Executors of T. Crisp (Darby).

Three year old filly.—First prize, £10, S. Wolton (Smart); second, £5, Colonel Tomline, M.P. (Smart).

Two year old filly.—First prize, £10, executors of T. Capon; second, £5, Colonel Tomline, M.P. (Bonny).

Yearling filly.—Cup, value 7 gs., 5 gs., and 2 gs., W. Thompson, jun., Thorpe, Colchester.

Pair of mares or geldings, or mixed.—Prize, £10, S. Wolton (Diamond and Doughty).

Team of four agricultural horses, either mares or geldings, or mixed.—First prize, £20, S. Wolton (Victory, Princess, Moggy, and Scott); second, £10, T. Jennings, Phantom House, Newmarket (Diamond, Boxer, Shot, and Sharper).

RIDING AND COACHING HORSES.

JUDGES.—Sir T. Lennard, Bart., Belhus.

H. W. Wake, Bramford.

G. W. Blake, Newton, Bury St. Edmund's.

Thorough-bred stallion for hunting purposes.—Prize, £20, Major F. Barlow, Hasketon, Woodbridge (Deerfoot).

Stallion for coaching purposes.—Prize, £10, Colonel Sir R. A. S. Adair, Elixton Hall, Bungay (Donald Caird).

Roadster stallion mares.—First prize, £10, J. Grout (Sportman); second, £5, H. Bultitoff, Bedwellhay Grange, Ely (Cleartheway). Highly commended: J. Grout (Rapid Roan).

Match pair of geldings or mares, for carriage or phaeton purposes, not less than 15 hands high.—Silver cup, 12 gs., Duke of Hamilton, Easton Park, Wickham Market (Tommy and Charhe).

Hunting mare, with foal at foot.—Prize, £10, S. Palmer, Barham. Highly commended: Colonel Sir R. A. S. Adair (Gem).

Hackney mare with foal at foot.—Prize, £10, Marquis of Westminster.

Hunting foal.—Prize, £5, Colonel Sir R. A. S. Adair. Highly commended: S. Palmer.

Roadster foal.—Prize, £5, Duke of Hamilton.

Weight-carrying mare or gelding, not less than five years old.—Prize, £10, and silver cup, value 10 guineas, Colonel Wilson, Stowlangtoft Hall (Fenian).

Weight-carrying hunting mare or gelding, not less than four years old.—Prize, £10, J. Grout (Ace of Clubs).

Weight-carrying hunting mare or gelding, three years old.—Prize, £7, Maurice Mumford, Creeting, Needham Market (Queen of Hearts).

Weight-carrying hunting mare or gelding, two years old.—Prize, £5, E. Green, M.P., Bury St. Edmund's. Highly commended: B. Sparrow, Halstead, Essex.

Light-weight hunting mare or gelding.—Cup, 10 guineas, W. Cooper (Peru); second, £4, Major F. Barlow (Brunette). Highly commended: B. Sparrow.

Best hunting mare or gelding in the yard.—Silver cup, value 10 gs., Lieutenant-Colonel F. M. Wilson (Fenian).

Gelding or mare of not less than 14 hands, nor more than 15-2 hands high, to be exhibited in single harness.—Silver cup, value 10 gs., Duke of Hamilton.

Riding mare or gelding, not under 15 hands high.—First prize, £10, G. D. Badham, Bulmer Tye, Sudbury (Eclipse); second, £5, J. Grout (Kitty).

Hackney mare or gelding not under 14 hands high, and not exceeding 15 hands.—First prize £10, G. D. Badham (Major); second, £5, G. K. Cooper.

Three year old hackney mare or gelding.—Prize, £5, C. S. Scott, Thorpe, Biddlestone (Attraction).

Two year old hackney mare or gelding.—Prize, value £5, G. Kersey Cooper. Highly commended: Duke of Hamilton.

Yearling hackney colt or filly.—Prize, £5, J. Grout (Quick-silver). Highly commended: F. Branwhite, Long Melford, Sudbury (Young Ambition).

Pony, not under 13 hands high, and not exceeding 14 hands.—Prize, £5, J. Grout (Nelly).

Pony, not under 13 hands high, and not exceeding 13 hands.—Prize, £5, J. A. Ransome, Ipswich (Perfection). Highly commended: W. Kersey, Reydon.

Pony, not exceeding 13 hands high.—Prize, £5, G. M. Sexton, Wherstead Hall, Ipswich (Tomtit).

The hunter jumping prize over three flights of hurdles.—First prize, £10, R. Allen, Bulmer, Sudbury (Kathleen); second, £5, J. H. Bryant, Ipswich.

CATTLE.

JUDGES.—M. Biddell, Playford.

W. Dodds, Keelby, Ulceby.

—Horne, Tabraham, Norfolk.

Suffolk bull, not under two years old.—First prize, £10, J. J. Colman, Norwich (Cherry Duke); second, £5, B. Brown, Thurstford, Thetford (Norfolk Duke). Highly commended: S. Wolton (Broadback).

Suffolk bull, under two years old.—Prize, £10, W. Harvey, Timworth, Bury St. Edmund's.

Best Suffolk bull of any age.—Cup, value 10 gs., J. J. Colman (Cherry Duke).

Suffolk cow, in milk or in calf.—First prize, £10, B. Brown (Duchess); second, £5, Colonel Tomline, M.P. (Polly). Highly commended: S. Wolton (Sprightly).

Suffolk heifer under three years old, in milk or in calf.—First prize, £10, J. J. Colman (Nelly 2nd); second, £5, B. Brown (Haudsome). Highly commended: S. Wolton (Wide-awake).

Suffolk heifer, under two years old, in milk or in calf.—Prize, £10, Colonel Tomline, M.P. (Red Rose). Highly commended: S. Wolton (Bridesmaid); B. Brown (Countess).

Best Suffolk cow.—Silver cup, value 10 gs., B. Brown (Duchess).

Shorthorn bull, not under two years old.—Prize, £10, J. Upson, Rivenhall, Witham (Monk). Highly commended: R. H. Crabbe, Baddow-place, Chelmsford (Old Sam); N. Catchpole, Ipswich (Sorcerer).

Shorthorn bull, under two years old.—Prize, £10, N. Catchpole (Champagne Charley).

Shorthorn cow, in milk or in calf.—First prize, £10, N. Catchpole (Buttercup); second, £5, N. Catchpole (Daisy). Highly commended: J. Upson (Lilac).

Shorthorn heifer, in milk or in calf, under two years old.—Prize, £10, N. Catchpole (Coronet).

Bull of any pure breed (not being Suffolk or Shorthorn), under two years old.—Prize, £10, H. Rodwell, Ampton Hall, Bury St. Edmund's (Devon).

Bull of any pure breed (not being Suffolk or Shorthorn), under two years old.—Prize, £10, C. Boby, Sutton, Ipswich (Ayrshire bull).

Bull of any age or breed.—The President's Cup, J. J. Colman, Suffolk (Cherry Duke).

Cow of any pure breed (not being Suffolk or Shorthorn), in milk or in calf.—First prize, £10, Rev. M. Shaw, Rougham Rectory, Bury St. Edmund's (Jersey); second, £5, Rev. M. Shaw (Jersey). Highly commended: C. Boby (Ayrshire); E. Greene, M.P. (Channel Islands). Commended: I. Rist (Channel Islands); S. Hanbury, Wickham Place, Witham (Alderney heifer, Daisy).

Heifer of any pure breed (not being Suffolk or Shorthorn), in milk or in calf, under two years old.—Prize, £10, Rev. M. Shaw (Jersey).

Cow of the Channel Islands breed.—Prizes, £10, £5, £3, and £2, Rev. M. Shaw (Lilac).

Cow of any age or breed.—Cup, value 5 gs., N. Catchpole (Shorthorn, Buttercup).

SHEEP.

JUDGES.—J. A. Hempson, Erbarton,

H. Sallows, Gilston, Harlow.

SOUTH-DOWNS.

Top of any age.—Prize, £10, Lord Braybrooke, Audley End. Highly commended: Lord Sondes, Elham, Norfolk. Commended: Colonel Tomline, M.P.

Shearling tup.—Prize, £10, C. Boby, Stutton.

Pen of five shearling ewes.—First prize, £10, Col. Tomline, M.P. Highly commended: Lord Braybrooke.

BLACKFACED.

Top of any age.—Prize, £10, J. M. Green, Stradishall, Newmarket.

Shearling tup.—Prize, £10, J. M. Green.

Best short-wooled tup.—Prize, £10, and cup, value 10 gs., Lord Braybrooke. Highly commended: J. Gilpin, Bardfield, Braintree (Oxfordshire Downs).

Pen of five shearling ewes of the blackfaced breed.—Prize, £10, G. King, Gazeley, Newmarket.

Long-wooled tup of any age.—Prize, £10, and 10 gs., J. Giblin (Cotswold).

Shearling long-wooled t up.—Prize, £10, T. Brown, Marham (Cotswold). Highly commended: T. Brown (Cotswold).

Pen of five long-wooled shearling ewes.—(No award).

Pen of ten short-wooled lambs.—Prize, £6, R. Woodgate, Great Waddingfield.

Pen of ten cross-bred lambs.—Prize, £6, A. Nicholson, Ipswich.

PIGS.

JUDGES.—W. Wilson, Baylham.

Rev. W. H. Beaver, Pencraig, Ross.

Boar of the black breed.—First prize, £8, G. M. Sexton (Kingeraft); second, £4, S. G. Stearn, Brandeston, Wickham Market (The Parson).

Sow and pigs of the black breed.—Prize, £8, S. G. Stearn.

Breeding sow of the black breed.—First prize, £8, G. M. Sexton (Sunshine); second, £4, R. E. Duckering, Northorpe, Kirton-in-Lindsey (Black Bess).

Pen of three young sows of the black breed, pigged since November 1st.—Prize, £5, S. Wolton, jun.

Boar of the white breed.—First prize, £8, S. G. Stearn (Cock of the Walk); second, £4, G. M. Sexton. Highly commended: G. M. Sexton.

Sow and pigs of the white breed.—Prize, £8, J. Pettit, Aldeburgh. Highly commended: S. G. Stearn.

Breeding sow of white breed.—First prize, £8, G. M. Sexton (Our Mary Ann); second, £4, R. E. Duckering (Lilly). Highly commended: S. G. Stearn.

Pen of three young sows of the white breed.—First prize, £5, G. M. Sexton (We Challenge All); second, £3, R. E. Duckering.

Pair of white boar pigs, pigged since November 1st.—Prize, £5, G. M. Sexton. Highly commended: S. G. Stearn (Twin Brothers); R. E. Duckering.

Pair of black boar pigs, pigged since November 1st.—Prize, £5, S. G. Stearn.

The best black boar, of any age.—Cup, value £5, G. M. Sexton (Kingeraft).

FARM IMPLEMENTS.

JUDGES.—G. Nunn, Eldo House, Bury.

W. Biddell, Lavenham.

Special prize cup, presented by the Lavenham Farmers' Club, for the best collection of agricultural implements, 10 guineas, Ward and Silver, Melford.

Special prize, pair millstones, 5 guineas — Bear, Ipswich and Sudbury.

The dinner was held in the Town Hall, the Marquis of Bristol, the President of the Association, in the chair, who said he earnestly desired that the English farmer might never have occasion to go, what he might call creeping to Parliament in order to ratify the bargains which they had made, be they good or bad, with their landlords, which he could not help thinking was very much like taking a slice of what somebody else had got. He was not speaking as a landlord to tenant-farmers, but as an Englishman to Englishmen, and he hoped it would be very long before we in England had to go to Parliament to redress those wrongs which are very much our own fault. Nor did he speak as a landlord desirous of making all he could out of his land, nor as being jealous of every right. His motto had always been and always would be with regard to the letting of land, "Live and let live." He held that one implied condition of letting land was this, that them an who took the land and farmed it should make out of that land not only sufficient to educate his children, but lay something up for their advancement in life at some future day, and to lay something by against a day of distress, which might come by reason of death or sickness. He did not think that there ever would come a time when such a measure as the Irish Land Bill would be required for England. The whole system was different in England to that in Ireland, but if at

any time the tenant farmers in the former country felt that they were lying under any injustice they had very much the remedy in their own hands. If they were only firm and outspoken with the landlords he felt sure that everything would go on smoothly and prosperously. Take the question of game for instance. Game was the right of the tenant by the law of the land, and the tenants had very much the matter in their own hands. A great deal was said about the landlords preserving game, but it was the tenant preserved it. Let them agree amongst themselves about, for instance, the preservation of rabbits, and he had no doubt that what they wished would be conceded to them. Landlords, in the generality of cases, would not be willing to lose a good tenant for the sake of a few destructive animals.

Col. WILSON said associations of this kind often made a great mistake in one direction. They did not hold shows for butchers' meat, nor were they a Christmas Fat Cattle Club, but they offered prizes for breeding animals; in order, however, to obtain a prize, it was necessary to get them into such a state of fatness that it was almost impossible for them to breed. He would ask any practical man if it was not the case that in many instances they not only injured their animals, but absolutely ruined them by the great amount of fat they were obliged to place upon them. This applied more to the female animal than to the male. They had this year made one great step in advance, but they had not yet gone far enough. Previously to this year they had only two classes for cattle, there was the Suffolk in one class, and Shorthorns and Alderneys, &c., in another. This year there was a separate class for Shorthorns, but still there were different breeds in the same class. He happened to show an Alderney bull, and he was obliged to do so against a Devon, and he should like to have the judges explain how they were able to compare the merits of the Alderney and the Devon bull? This difficulty might in future be obviated in two or three ways, either increase the prize in the classes, or they might say a prize should be given for each different description of animals if there was sufficient merit represented. In to-day's entry there were no less than fifteen Channel cows, and that brought him to the point whether there should not in future be a separate class for Channel cows or any other dairy breed.

Col. PARKER, M.P., said, happily in England, as had already been remarked, landlord and tenant were perfectly competent to enter upon their own engagements and undertakings without legislative interference. There was not a man in that room, but what would feel highly indignant at the suggestion of any interference of the kind. He fully concurred with the excellent sentiment expressed by the noble president as to the saying, "Live and let live," and there was no need for legislative interference where there was such a kindly understanding between the parties. Amongst other questions under consideration was the one of Game, and there were no less than four Game Bills before the House of Commons. Rabbits were animals that had been once or twice before the House of Commons, and he was struck with the observations of one gentleman who was very much offended because the rabbits were called *vermin*! From his experience of these animals he could for his own part call them by no other name. He would take every opportunity—always bearing in mind that the agriculturists and reasonable men would never destroy partridges' and pheasants' nests in the season—during the winter months of February and March, with ferret, net, and dogs, of extirpating them.

Mr. EDWARD GREENE, M.P., was of opinion that after all there was a great deal of sham legislation in the House of Commons; and but for letting off the steam, if the House was shut up for the next twelve months England would be a far happier and prosperous country. He could not commend the riding class. He would say, "If you attempt to breed riding horses get a distinctive breed of mares." Mares whose grandmothers were never seen were used for breeding purposes, too many went to the cart tail, and a great horse was used. But he believed there was one way in which riding horses might be bred with some success, and it was to use for mares horses of grand action; because if you get action it was astonishing how the public would put up with other defects. Although in a hunter and other horses it was possible to have too much breed, with a mare that could be depended upon, put blood upon it; where,

however, nothing was known of the mare use a good trotting horse. He confessed he could not see the necessity of making animals so beastly fat, fit to be sent to the butcher. What was wanted in this Association was an instruction to some one to discard stock which did not come under the proper definition. He saw to-day the South and other Downs shown for one prize. He also noticed amongst the two year-old hackney fillies, an animal take the prize fit for an omnibus, and it was exhibited against an animal fit to carry a lady. He would defy a judge to give a fair opinion under such circumstances; and he would say if animals come in like that send them back. He was an advocate for sending animals back, for there was no way of teaching a man his business like giving him experience, and there was no experience so good as that which was bought, if not bought too dearly.

Mr. D. SEWELL must congratulate some of the exhibitors in having kept up the credit of the Suffolk cart-horses. He considered the gait mares a fine collection, but he could not say much for those with foals.

Mr. M. BIDEDELL had looked over a better exhibition than they had seen to-day. The Suffolks were very much improved of late years, and this was the first instance that a Suffolk bull had beaten a Shorthorn, and he, for one, never gave a prize with greater pleasure than he did in the open class. Though the prize went into Norfolk, yet the bull was bred in Suffolk, and consequently he reflected as much credit upon the county as if he had remained in the county. He thought the animals amongst the Suffolks were the best he had seen in that class—the four-year-old cow class and the young bull. He quite agreed with the remarks made by Lieutenant-Colonel Wilson about the Alderney having a separate class, and he thought that if they came in in the numbers they did it was necessary, for there was otherwise great difficulty in deciding the prizes for Alderney cows. As to showing the animals in a fat state, one of the most successful breeders, the late Mr. Crisp, said he never would breed from an animal unless he had seen it as fat as it could be made. It was the best test an animal could have. If there was any weakness in an animal it would come out by high feeding sooner than with any other treatment. No one needed to fear breeding from the fattest horse that he could find, as it proved it to be an animal of an excellent constitution, and an animal which had gone through a system of training which none but such an animal could stand. With reference to the noble President's remark as to "Live and let live," he (Mr. Biddell) spoke as a tenant-farmer only. He farmed under the noble President, and a more liberal family there could not be, and there was no doubt whatever but that the noble Marquis thoroughly meant what he said about living and let live. There had been a great deal of nonsense talked lately upon the subject of game, and some men advocated legislation to prevent a man doing as he thought proper with his own. If a gentleman owned an estate, surely he had a right to do what he liked with it. He admitted that he had seen a great deal of injury done by game, but it was done in a small district in comparison with the whole kingdom, and if Parliament was going to legislate in the manner proposed by some, he considered, with Mr. Greene, that it had better shut up altogether for twelve months.

SMUT IN WHEAT.—Uredo, pepper-brand, rust, bunt, burnt-ear, smut, and blight or mildew, are terms somewhat indifferently applied to disease in cereal grain, especially in wheat, which consists of a black or dark coloured powder inside the corns, often not showing outside, and which is really a microscopic fungus having several distinct stages of growth, and is transmissible by the germination of the seeds so affected to future plants; corn so diseased loses about 50 per cent. of its nutritive properties. The word "*Bunt*" seems the original of these names; it means simply "burnt," which describes the appearance of the fungus, and is the past participle of the old English verb "*to bren*," or as we now write it, "to burn." When the mischief is caused by sudden cold or heat or insects, the term "blight" is generally applied; the term "burnt-ear" is generally applied to the external, and the term "smut" to the internal manifestations of the fungoid disease.—R.

THE CHESHIRE AGRICULTURAL SOCIETY.—Sir Harry Mainwaring has announced his intention of moving at the general meeting, that this Society be amalgamated with the Manchester and Liverpool Society.

PETERBOROUGH AGRICULTURAL SOCIETY.

MEETING AT PETERBOROUGH.

This show was held on Thursday, July 7. The prize list was better by £63 than last year. The beasts were 14 in number, but the sheep were weak, the extra prize failing to induce a greater show than 29, against 33 last year. In pigs there was a large increase, amounting up from 10 last year, to 28 this. The horses showed a decrease, the total being 10, against 125 last year. The falling-off was principally in the five-year-old hunters and the hackney classes. The cart mares with foals were 9, being 2 less than last year; while the 13½-hand ponies rose from 4 to 15. In the small ponies there was a decrease from 13 to 8. The aged-hunter class was not up to the level of former shows, but it was said to be better than the corresponding class at Royston. The young hunters were altogether superior, a better lot not having been seen here. Hackneys were equal to former years. The small ponies were a very nice lot, and there were some smart yearlings. There were some good cart colts and fillies, the young colts being the best of their sex, as were the older fillies. The cart mares were a meritorious class, but the foals, it was thought, did not, as a rule, equal their dams. Cattle were fairly represented, fat beasts being limited, but fine. The bulls, taken together, were a good class; and in young ones there was a close run between the Marquis of Exeter and Mr. Wood, the latter winning. There was an average show of cows, and a good one of heifers; Mr. How taking the first prize and Mr. Gates's cup. Sheep were unusually good for Peterborough, though not as numerous as last year. Why they should not always be as good and more numerous it is impossible to say, as there are plenty of good sheep in the district. Mr. Cartwright's three-shear ram was a capital sheep. The show of pigs was one of the best and largest ever seen here, Mr. T. H. Vergette beating Mr. J. Turner for the blue riband of the large breed, and Mr. S. Deacon carrying off that for the small breed. There was a much better competition for the butter prizes, Miss Wagstaff and Mr. E. A. Skrimshire carrying off the prizes. Poultry was about an average, the Dorking chickens being a fine class, with a good show of game, and the Black Spanish excellent; Lady Grace Gordon taking the prize for over a year old, and running a very near race with Mr. Collingwood for the first pair of pullets. The Cochins were limited, but meritorious. Not much could be said for the Hamburgs, but there was a good deal to attract in the mixed breeds. What turkeys were shown were good, and the geese rare. Ducks were an excellent class. Pigeons were few in number, and of rabbits, thank heaven! there were none. Among the miscellaneous exhibitors in the show grounds were Amies and Barford, Vergette, Ashby and Jeffrey, and Baker, with machines and implements, and Bradford's washing machines; while Hayes and Son exhibited a collection of prize carts.

P R I Z E L I S T .

HORSE-SHOEING.

JUDGES.—J. D. Barford, Southampton.

R. D. Culver, Downham Market.

Shoeing hunters.—First, J. Newton; second, M. Cox; third, — Clarke.

Apprentice shoeing hackney or carriage horses.—First, J. Clay; second, G. Forth.

RIDING HORSES.

JUDGES.—Lord Kesteven, Casewick, Stamford.

S. J. Welit, Tathwell, Louth.

G. Bland, Coleby, Lincoln.

Open to all England.—Hunter, 5 years old or upwards.—A silver cup, value £20, S. J. Welit, bay horse (Loverer); second of £10, T. Percival. Commended, T. Percival.

Gelding or filly, 4 years old, for hunting purposes.—First prize, £10, R. Stokes (black). Commended, C. D. Newton (chestnut).

Open to all England.—Hackney mare or gelding, not exceeding 15½ hands high.—Prize of £7, J. Hornsby, bay (Odd Trick). Highly commended, J. Hornsby (Beda).

Open to all England.—Pony, not exceeding 13½ hands high.—Prize, £5, J. Burnham (Lady Mary). Highly commended, C. W. Chuplin (Odd Fellow); E. Calthorpe (chestnut).

Open to all England.—Pony, not exceeding 12½ hands high.—Prize, £5, J. Goodliū (blue roan). Commended, T. Wenlock (chestnut.)

Yearling colt or filly for hunting purposes.—Prize, £10, A. Goodman, jun. (colt by Richmond). Commended, J. Goodliū (colt by General Hess).

Mare suitable for hunting purposes, and foal at foot got by a thorough-bred stallion.—A silver cup, value £10, J. Goodliū. Commended, S. Middleton.

CART HORSES.

JUDGES.—J. Plowright, Manca.

L. Foster, Irthingborough.

Cart colt rising 3 years old.—Prize, £3, E. Vawser.

Cart filly, rising 3 years old.—Prize, £3, R. Hopper.

Cart colt, entire or otherwise, rising 2 years old.—Prize, £3, Isaac Cooke.

Cart filly, rising 2 years old.—Prize, £3, J. W. Moore.

Cart mare and foal at foot.—First prize, £5, and cup, B. W. Grounds, jun. (brown mare); second of £2, T. H. Vergette (chestnut mare).

CATTLE.

JUDGES.—C. Howard, Biddingham, Bedford.

W. Little, Littleport, Ely.

Fat ox, without restriction.—Prize, £10, T. Pulver; second of £5, R. Wood. Highly commended, Marquis of Exeter and W. Sisman.

Fat cow or heifer.—First prize, £5, Messrs. Dudding (roan cow); second of £2 10s., R. Wood (roan heifer). Highly commended, Marquis of Exeter (Scotch heifer). Commended, J. J. Sharpe (white heifer), and G. F. Baker (roan heifer).

Bull, above 2 years old.—First prize, £10, Marquis of Exeter (Telemachus). Highly commended, R. Wood (Lord Chancellor).

Bull, under 2 years old.—First prize, £5, R. Wood (Lord Aberdeen 2nd); second of £2 10s., Marquis of Exeter (Grand Pippin). Highly commended, W. Sisman (Paris); commended (The Worster Knight).

Cow, having a calf and in-milk or in a breeding state.—First prize, £5, R. Searson (Magnolia); second of £2 10s., R. Searson (Winter Rose). Highly commended, J. Lynn. Commended, S. Vergette.

Heifer, in-calf, under 3 years old.—First prize, £4, and cup, J. How; second of £2, R. Searson. Commended, A. Goodman, jun.

Heifer, under 2 years old.—First prize, £2, J. How; second of £1, J. Lynn. Highly commended, J. J. Sharp. Commended, Messrs. Dudding (Virginia), and J. Whitwell (Musedora).

Special prize, for the best animal exhibited, £10, J. How (2 year old heifer).

SHEEP.

JUDGES.—T. Cartwright, Dunstan, Lincoln.

G. E. Daintree, Fenton, St. Ives.

Longwooled ram, of any age.—Prize, £10, T. Cartwright. Highly commended, Messrs. Dudding.

Twenty longwooled ewes.—First prize, £3, and cup, D. Webster; second of £1 10s., S. Middleton.

Ten longwooled shearing ewes, bred in the district.—First prize, £3, S. Middleton; second of £1 10s., A. Aitken. Commended, W. W. Pearce.

Ten longwooled ewe lambs.—Prize, £3, S. Middleton.

Five wether lambs of any breed.—Prize, £3, R. Webster.

Three shearing wethers of any breed, open to all England.—Prize, £3, J. Wheeler.

PIGS.

JUDGES.—T. Cartwright.
G. E. Daintree.

Boar of the large breed, open to all England.—First prize £3, J. Wheeler (Lincoln); second of £1, J. Turner. Commended, G. Harris (white).

Boar of the small breed, open to all England.—First prize £3, S. Deacon; second of £1, J. Lynn. Highly commended, J. Lynn. Commended, J. Wheeler.

Breeding sow of the large breed.—Prize, £2, T. H. Vergette (white).

Breeding sow of the small breed.—Prize, £2, S. Deacon.

Extra Stock.—Highly commended, for fat pig, W. Dainty.

BUTTER.

JUDGE.—J. Douglas, Clumber, Worksop.

Fresh butter (Alderney excluded).—First prize, £1, Miss C. Wagstaff; second of 10s., E. A. Skrimshire.

At the dinner the chair was taken by the Earl of CARYSFORT, who expressed some surprise that no prize of any sort had been offered for flax, and that so little appeared to be grown in the district. There was Whittlesey, a perfect land of Goshen; and there were the hills of Huntingdon, now scarcely less fertile than the valleys of Northampton. He considered the growth of flax was certainly increasing. Notwithstanding the many changes which had lately taken place in agriculture, he must, as a true liberal, warn them against the adaptation of new principles. He had thought the country was too ready to run into extremes without reckoning upon the results, and he was quite sure great

risks were involved by the too sudden over-draining of the land (No, no). If they attempted to stop a drunkard all at once, they would in all probability kill him. He strongly advocated the preservation of water, when in some dry time like that lately experienced it served to fertilize the otherwise almost barren land (A VOICE: No, no). He repeated it, adding that the water was now carried away, and was useless for evermore (dissent and approbation), and the gifts of Providence were not sent to be wasted, however much they might be improved upon. In India and other hot countries it was the common custom during the wet season to save what rain fell in large tanks made for the purpose, from which in times of drought the water could be transferred to the land as required. Why could not this be done in England? He was opposed to the practice of cutting down of trees, and their best motto in a flat fenny country would be to economise water and spare wood.

Mr. J. BIRD, contrary to the chairman, was one of the greatest advocates for draining both high and low land to the uttermost, and yet he could grow as good, if not better, crops than his neighbours. It was impossible to keep the land free of weeds when there was water too near it.

Lord KESTEVEN said the chairman had alluded to the growth of flax. He (Lord Kesteven) had seen large quantities of it growing, but for his part believed the promise of this year's crop was not such as to encourage its cultivation. He strongly advocated the system of draining now so much in favour. His friend on the left (Mr. Wells) had drained land to a considerable extent. He (Lord Kesteven) had sailed, rowed, and fished on Whittlesey Mere, but he thought there was but little to catch there now.

Mr. H. T. WRENFORDSLEY strongly advocated a closer connection with the county show, and expressed the pleasure he felt on being informed that the shows would be held together in future (A VOICE: "For next year only").

THE CAMBRIDGESHIRE AND ISLE OF ELY AGRICULTURAL SOCIETY.

MEETING AT ROYSTON.

This show was held on Wednesday July 6, when amongst the cart horses the first prize for stallions went to Mr. Welcher's Honest Tom, a Royal winner. He might have taken the £20 cup on this occasion as the best entire horse for agricultural purposes, but having done so previously, he could not do so, again, and the latter premium was awarded to Mr. J. Roach, of Gretton, for England's Glory. The Suffolk horses were a handsome class, but they had not size and bone enough for the judges. The riding and coaching horses were fairish; and there were some good brood mares. The prize given by Lord Royston for hunters did not elicit that competition which is desirable, and his lordship has withdrawn the premium.

There was a good show of stock, and Lady Pigot was again pre-eminent; Mr. Pawlett also being extremely successful. Her ladyship secured first honour for the best bull not exceeding two years old with Bythis, which also took the chief honour as the best Shorthorn of any age in the yard, and carried away the cup given by the Right Hon. H. Brand. Her Queen of Rosalea took first prize for the best cow in calf or milk, Lady Ann being absent. Charles-le-Beau obtained her ladyship's second prize for two-year-old bulls, the first going to Mr. T. E. Pawlett's well-known red bull Baron Killerby. There were other victories for her ladyship, La Belle Hélène being second among the heifers, Mantaini the second second among two-year-old heifers, and Imperial Rose the best of the yearling heifers. Mr. How met with some success, his first prize being a three-year-old heifer, Windsor's Butterdy, and there were some very good dairy cows competing for the premium offered by the town of Royston for the best pair.

As a whole the sheep were good, though in some of the classes less merit was shown than others, the Southdowns being limited. The Shropshires took everything away from the Hampshires and Southdowns among the shearing short-wooled ewes. Lord Chesham's pen was pronounced a very matchy lot, of nice quality, and got up to perfection. Mr. Cooke's pen was also a very nice lot, but larger, and not so well sorted in form and style. Among the Southdown rams of

any age the decision of the authorities at Saffron Walden was reversed, Lord Braybrooke being now "nowhere," and Mr. Jonas first. The best fat shearing long-wooled or cross-bred wethers was a grand pen of sheep; they were bred from Cotswold and Hampshire Downs, and took the prize to Bedford. Lord Braybrooke showed some very nice sheep as shearing short-wooled wethers, but apparently they do not possess size enough to obtain the fiat of the judges. There was some spirited competition for the best shearing short-wooled rams, there being no less than 17 pens. The judges had out for final examination four lots, and they awarded the prize to Lord Chesham, the second prize going to some beautiful sheep shown by Mr. F. Street, of Maulden. It will be seen by the prize list that Mr. Street was successful in several other classes. Captain Catling was not able to exhibit sheep up to the usual form of those he sends; and Mr. Gunnell very easily ran away from him with first and second for shearing Leicester or Lincoln ram; Mr. Gunnell also taking the special prize given by Royston for the same class.

The show of pigs was not a large one. In the large breed there was nothing to come near Messrs. Howard of Bedford, who showed a boar which carried off first prize, besides a sow which was also out of all comparison the best. There was a good small black boar and some breeding sows of the small breed, some of them having litters.

The exhibition of implements took place at the extremity of the showyard, where there was a good collection for a county show; Mr. Innes, of Market-hill, Royston, taking the prize for the best collection.

PRIZE LIST.

HORSES.

FOR AGRICULTURAL PURPOSES.

JUDGES.—J. Cox, Sandbridge, St. Alban's;
J. Henley, Ruckland, Louth.

Stallion.—First prize, £10, W. Welcher, Tofts, Brandon;
second, £5, D. Camps, Haddenham.

Entire two-year-old colt.—First prize, £5, F. Richardson, Chatteris; second, £3, W. Hurrell, Newton.

Cart mare, not under four years old.—First prize, £5, J. Warth, jun., Sutton; second, £3, C. Male, Cottenham.

Mare and foal.—First prize, £5, J. Warth, jun.; second, £3, T. Gunnell, Milton.

Two-year-old cart gelding.—Prize, £4, G. Inskip, Kneesworth.

Two-year-old filly.—First prize, £4, E. Murfitt, March; second, £2, Capt. R. C. Catling, Needham Hall.

Plough team.—First prize, £6, J. Linton, Westwick Hall; second, £3, J. Warth, jun.

Pair of mares for agricultural purposes.—First prize, £5, J. Warth, jun.; second, £3, W. Hurrell.

Three-year-old cart colt or gelding.—Prize, £5, J. H. B. Maris, Hinxton.

Three-year-old cart filly.—Prize, £5, W. Beard, Chatteris. Pair of team horses.—Prize, £10, J. Linton.

Entire horse for agricultural purposes (open to all England), the exhibitor being a member or paying an entrance fee of one guinea.—A cup, value £20, J. Roach, Gretton.

Extra Stock.

J. Linton.—Filly, one year three months.
W. Batterson, Girton.—Mare, seven years.

FOR RIDING AND COACHING.

JUDGES.—H. J. Boulton, Putnoe, Bedford;
J. Hutelinson, Catterick.

Thorough-bred stallion, which in the opinion of the judges is calculated to get weight-carrying hunters (open to all England), the owner being a member or paying an entrance fee of one guinea.—A cup, value £20, A. Fisher, Royston. Commended, J. Linton.

Hackney stallion.—Prize, £10, R. Joselyn, Ely. Commended, J. W. Gosling, Newmarket.

Mare, calculated to breed weight-carrying hunters, and foal.—First prize, £5, T. Briggs, Babraham; second, £3, H. Hurrell, Harston. Commended, R. Hubbard, Marshland Fen.

Mare or gelding, under five years old, adapted for hunting purposes.—First prize, £5, W. Goulder, Wimbotsham; second, £3, W. Hurrell. Commended, T. Garner, Moulton.

Hackney mare or gelding.—First prize, £4, E. Durrant, Wimbotsham; second, £2, H. Thurnall, Royston. Commended, F. J. Fordham, Royston.

Brood mare, calculated to breed hunters, with foal at foot or in foal.—First prize, £5, T. Briggs, Babraham; second, £3, H. Hurrell. Commended, J. Ellis, Triplog.

Two-year-old colt or filly, likely to make a hunter.—First prize, £5, H. Thurnall; second, £3, J. Linton.

Yearling colt or filly, likely to make a hunter.—First prize, £5, H. Thurnall; second, £3, J. Phillips, Royston.

Horse, mare, or gelding that shall leap hurdles and water in the best and safest style as often as the judges may direct.—First prize, £10, W. Goulder; second, not awarded.

Three-year-old colt, likely to make a hunter.—Prize, £5, T. Briggs. Commended, T. Kemp, East Hatley.

Three-year-old filly, likely to make a hunter.—Prize, £5, H. Hurrell. Commended, H. Thurnall.

Hunter not exceeding five years old at the time of the entry, the *bona fide* property of a resident or occupier in the Isle of Ely or county of Cambridge, and which shall have been in the possession of the exhibitor for the six months previous to the day of exhibition.—A cup, value £20. Not sufficient merit.

Pony, mare, or gelding not exceeding 13 hands.—A cup, value £5, S. Smith, Fen Ditton. Commended, E. B. Nunn, Royston.

Extra Stock.

Commended, C. Gabb, Bishop Stortford.—Pony.

CATTLE.

JUDGES.—C. Howard, Biddenham, Bedford;
J. Robinson, Clifton Pastures.

Bull, exceeding two years old.—First prize, £8, T. E. Pawlett, Beeston; second, £4, Lady Pigot, Branches Park, Newmarket.

Bull, not exceeding two years old.—First prize, £10, Lady Pigot; second, £5, T. E. Pawlett. Commended, C. Ellis, Meldreth.

Bull, not exceeding one year old.—First prize, £4, T. E.

Pawlett; second, £2, Lady Pigot. Commended, Lord Braybrook, Audley End.

Cow, in calf or in milk.—First prize, £6, Lady Pigot; second, £3, G. E. Frere, Roydon Hall. Highly commended, J. Clayden, Littlebury; commended, G. E. Frere.

Heifer, not exceeding three years old, in calf or in milk.—First prize, £4, J. How, Broughton; second, £2, Lady Pigot. Commended, Captain R. C. Catling.

Heifer, not exceeding two years old.—First prize, £4, J. How; second, £2, Lady Pigot. Highly commended, J. R. Chaplin, Ridgewell, Halstead; commended, Captain R. C. Catling and J. R. Chaplin.

Heifer, not exceeding one year old.—Prize, £3, Lady Pigot. Pair of dairy cows belonging to the same person, in milk or in calf.—First prize, £5, T. Rush, Babraham; second, £4, J. Miller, Royston. Highly commended, S. Strickland, Steeple Morden.

Fat ox, steer, or heifer.—First prize, £5, T. Pulver, Broughton; second, £3, Captain R. C. Catling. (This class was generally commended.)

Shorthorn bull of any age.—Prize, £20 (cup), Lady Pigot.

SHEEP.

JUDGES (Long-wooled).—C. Clarke, Scopwick, Sleaford;
W. Sanday, Ratcliff-on-Trent.
(Short-wooled and cross-bred): H. Overman, Weasenham;
H. Woods, Merton.

Shearling Leicester or Lincoln ram lambs.—First prize, £5, T. Gunnell; second, £3, T. Gunnell.

Pen of five Leicester or Lincoln ram lambs.—First prize, £4, R. Sparrow, Chesterton; second, £2, T. Gunnell.

Shearling long-wooled ram, not Leicester or Lincoln.—First prize, £4, J. Gibbin, Bardfield.

Pen of five Leicester or Lincoln ewes, certified to have brought up a lamb this year.—First prize, £5, R. C. Catling; second, £3, F. Allwood, Walsworth.

Pen of five shearling Leicester or Lincoln ewes.—First prize, £5, T. Gunnell; second, £3, F. Allwood.

Pen of five Leicester or Lincoln ewe lambs.—First prize, £4, T. Gunnell; second, £2, F. Allwood.

Shearling short-wooled ram.—First prize, £5, Lord Chesham, Latimer, Chesham; second, £3, F. Street, Bedford.

Pen of five short-wooled ram lambs.—First prize, £4, Lord Daere, Kimpton; second, £2, J. P. Nunn.

Pen of five short-wooled ewes, certified to have brought up a lamb this year.—First prize, £5, Lord Daere; second, £3, G. Jonas, Tekleton.

Pen of five shearling short-wooled ewes.—First prize, £5, Lord Chesham; second, £3, G. Cooke, Horseheath Park. Highly commended, Nockolds and King, Saffron Walden.

Pen of five short-wooled ewe lambs.—First prize, £4, Lord Daere; second, £2, W. Hurrell. Commended, F. Street.

Pen of five cross-bred wether lambs.—First prize, £4, G. Jonas; second, £2, W. Hurrell. Commended, J. I. Ellis.

Shearling Leicester or Lincoln ram.—First prize, £10, T. Gunnell; second, £5, T. Gunnell.

Southdown ram of any age.—Prize, £5, S. Jonas, Chrishall Grange.

Pen of five fat shearling short-wooled wethers.—First prize, £5, G. Street, Maulden; second, £3, Nockolds and King.

Pen of five fat shearling long-wooled or cross-bred wethers.—First prize, £5, H. Purser, Bedford; second, £3, T. Rush.

Pen of five fat short-wooled lambs.—Prize, £5, S. G. Jonas, Duxford.

Pen of five fat long-wooled or cross-bred lambs.—Prize, £5, E. Pigge, Barkway.

PIGS.

JUDGES.—C. Clarke; W. Sanday.

Boar, large breed.—Prize, £3, J. and F. Howard, Bedford.
Boar, small breed.—First prize, £3, E. King, Ashley Hall; second, £1 10s., R. Chaplin.

Sow, in pig or suckling, large breed.—First prize, £3, J. and F. Howard; second, £1 10s., H. F. Everett, Bridgham, Thetford.

Sow, in pig or suckling, small breed.—First prize, £3, R. Pyne, Royston; second, £1 10s., H. F. Everett.

IMPLEMENTS.

JUDGES.—H. Long, Carlton;
J. P. Nunn, Royston.

Collection of agricultural implements (10 entries).—Prize

£10, G. H. Innes, Royston. Highly commended, L. Gimson, Royston.

At the dinner the Right Hon. H. BRAND, M.P., the president of the Society, in the chair, said they had done well in framing the basis of the Society on a large scale, and not committing the mistake which was seen in many districts, where agricultural support was frittered away in a considerable number of small Societies. He knew of no part of the kingdom where a Society of this kind had accomplished greater progress. The northern part of Cambridgeshire had been reclaimed from the sea, and in the southern part there might be some old enough to remember that a large portion was a wild down, where the rabbit had it all to himself. What had brought about a reformation in those things? The capital and skill of the farmer. Those who had travelled abroad knew that nothing was to be seen there equal to the capital and skill of the British

farmer. The British agriculturist was a long way ahead of the foreign one.

Lord ROYSTON said his experience in Cambridgeshire was that it was very little use in giving prizes for competition of any kind in which hunters might be considered to be engaged. The reason of it was doubtless this, that a considerable part of the county was not a hunting country, and in that part which you might call a hunting country the owners of horses had great difficulty at the different times at which the show was held to produce those animals in a state they might consider satisfactory to themselves and to the judges. Therefore, in giving the prizes to hunters this difficulty always arose; and, for the future, having last year failed to gain sufficient competition at March, and having failed at Royston, he thought he should forward the views of gentlemen who competed at this meeting in giving the small sum he had devoted to hunters for some other object which would receive actual and successful competition.

LIGHT AND HEAVY DRAUGHT MOWING MACHINES.

EVERCREECH FARMERS' CLUB.

The second machine mowing match in connection with this Club was held at Doulting. The long-continued drought had rendered the grass-crop light here, as everywhere else; but the ground was as fair a specimen as could be found in the district. It was a large field of new clover, and the crop was perhaps about 13 cwt. to the acre. As in last year's competition, there were prizes offered to two classes of competitors, viz., the manufacturers of machines, and the sons or servants of farmers in the neighbourhood owning machines. The following were the entries: In class 1.—Bamlett, Woods, Burgess and Key, Hornsby, Howard, Samuelson, and Lewis and Hoole; in class 2.—J. Candy (Doulting), C. Welch (Ditchcat), R. Norton (Ditchcat), J. R. Welch (Redlands), T. Reynolds (Doulting), J. Bennett (Wanstrow), R. Harding (Cranmore), and G. Dyke (Shepton Mallett). It will be seen that nearly all the great makers in the kingdom were represented; but it unfortunately happened that Messrs. Howard were unable to compete, through the non-arrival of their machine. Last year, when there was a far better general crop of grass than we can this year expect, a hope was expressed that this year the relative merits of the light-draught and heavy-draught machines would be tested in the heaviest field that could be found in the neighbourhood—a crop say of about two tons to the acre. It was evident that that such a trial could not take place this dry season, and it was even suggested that the matches might be temporarily abandoned. But, although there was an example in the course adopted by a neighbouring Society at Frome, the Evercreech Club decided not to discontinue the events which proved so interesting. The judges were—Mr. Richard Yeoman, of Cranmore; Mr. Charles Harding, of Montacute; and Mr. John Brook of Preston, Yeovil. There was a close run for first place in the manufacturers' class, and the award which was given was understood to be only for superior delivery of the swathe, the cut of the first and second machines being equal. In the farmers' class there was no difficulty in deciding the first prize, the winner having made an excellent start, and worked well through his ground. The competition was witnessed by a large number of spectators, estimated at 1,300 or 1,400. The prizes were awarded as follows: Class 1.—Open to all England. To the manufacturer of the mowing machine which shall mow and leave in swathe in the best manner one acre of land in one hour: First prize, £4, Messrs. Burgess and Key, Brentwood, Essex (time, 45 minutes); second, £2, Messrs. Woods, London (49 minutes). Class 2.—To the managers of the mowing machine, the owner of which being a farmer, and the competitor a farmer's son or servant—the latter having been in the employ of the owner not less than three months previous to the match—which shall mow in the best manner one acre of land in one hour: First prize, £2, Mr. G. Dyke, Shepton Mallett (with Bamlett's machine); second, £1, E. Collins, servant to Mr. T. Reynolds, Doulting (with Hornsby's Paragon machine); third, 15s., J. Candy, Broadpool, Doulting (with Burgess and Key's machine); fourth,

5s., W. Batt, servant to Mr. R. Harding, Cranmore (with Woods' machine).

At the Dinner, Mr. WHATLEY, the Secretary, said that when the Society met upon a similar occasion to this, in June, 1869, he then promised to look out a heavy crop of two tons to the acre to try the merits of the machines upon; but he had not yet been able to find such a piece, and he was sure that none of those present could boast of it upon their farms. The committee had therefore arrived at the conclusion that the question of the relative value of the heavy and light machines had not yet been properly solved. It was an important question to consider as to the amount of work that could be accomplished in a given time by the various machines with one or more horses. Manufacturers would say, perhaps, that it required a big hammer to break a big stone, and *vice versa*, and others would say that the light machine could compete on equal terms with the heavy. That at present remained for them to determine, and another year might prove to them the fact, should they be enabled, as he hoped, to put the machines into a suitable crop.

Mr. R. YEOMAN, one of the Judges, said the manufacturers' class had given them the most difficulty to decide upon. In the farmers' class there was not so much to occupy their attention; for the work was in some instances not so well done as they could have wished. However, that was accounted for by the lightness of the crop, and the wind which beat it down so that it would not stand against the knives, it being very difficult to cut unless the knives were in the highest state of perfection.

Mr. BROOK, another of the Judges, thought they should not take the mowing of that day as a sample of what the machines were really able to do; for he had seen those which had seemingly done the worst to-day, excel on other occasions. He believed there was nothing like having a good start, and setting the machine properly at the beginning, in order to make a good finish; but if the competitor were up to the mark, he would narrowly watch his work throughout, and if he saw anything going wrong, not hesitate to put it right.

Mr. HARDING, the third Judge, gave it as his opinion that looking at the crop and circumstances over which they had no control, the work was as well done as might be.

Mr. C. WELCH called attention to a fact with which he was much struck, viz., that this year as well as last year the prizes in the first class were won by light machines, and in the second or farmers' class by heavy draught machines. He could not understand why the light machine in the hands of the mechanic should always win the first prize, whilst in the hands of the novice the heavy sort was always successful. Now the thing they wanted was the machine that was most complete in the hands of their labourers. They didn't generally want to get machines to work them themselves, although he had a very good machine which he had worked all the season, and no doubt many others had done the same. He saw a young man present, a farmer's son, who had worked a

light machine and won a prize to-day in the manufacturing class. Of course that gentleman was possessed of more knowledge and intelligence than the generality of labourers, and therefore his success was no proof of the superior usefulness of any particular machine for labourers' use. He should be glad if any manufacturer present would give him an explanation of the fact he had stated with regard to the heavy and light machines.

Mr. BURGESS, in reply, ventured to dispute the fact that heavy machines were always the winners in the farmers' class. Last year at Radstock the first prize in the manufacturers' class was taken by Woods, and the second by Burgess and Key; and then in the drivers' class the first three prizes were taken by Burgess and Key's machines in a competition with eight others—and theirs was a very light-draught machine. It was a question simply of the driving-rod. If they had a long driving-rod brought down at an angle, they must have undue friction—and that was the only way he could account for the difference referred to.

Mr. WELCH said it seemed to him that Woods' machine was working on the same principle—from a long driving-rod.

Mr. BURGESS replied that it was not so much of an angle. He explained that the reason why some machines were so heavy in draught was because they were badly proportioned. At the present time all the machines were got up to work very well; and the points to be looked to in selecting a machine were light draught—which was very important as a question of expense—and the easy and inexpensive renewal of any part that became worn.

Messrs. WOODS' representative denied that it was the length of the driving-rod which was a disadvantage to the heavy machines; but at the same time he believed it would not be long before the superiority of light-draught machines

was a general conclusion. The heavy machines would be laid aside, and light ones brought into general use. He did not mean to say there might not be some extraordinary crops in certain seasons—perhaps even $2\frac{1}{2}$ tons per acre—which would require heavier machines than were used upon ordinary occasions. But he did say that if they had got one field out of ten where they wanted a heavier machine—speaking from experience, he could tell them that if they took off the boy, when they found the machine did not work so well as it should, and put on a heavy man in his place, they would find it an improvement. He argued that it would be better for a farmer to wear out a light machine a year or two sooner than to wear out his horses by using a heavy one.

Mr. BROOK said he had suggested to the committee that in awarding manufacturers' prizes they should take into account the draught of the machines; but they told him the judges had nothing to do with anything except the best cutting. Another consideration which he would recommend to makers was this—which he was sure they could carry out with the greatest ease—that they should fix swathe-boards to their machines, so as to take the swathe out of the way of the wheels and the horse's feet, and so prevent it from being pressed into the ground, which with a heavy crop was often very injurious.

Mr. YEOMAN, referring to the superior success of the competitors in class 1, said the reason was very simple. In the manufacturing class they were all in good order—the knives in first-class condition, and they were generally new machines; whereas in the farmers' class perhaps the machines had been in use many years, and the knives were not in the best condition. He thought that might account in a great measure for the discrepancy. One of the successful machines to-day had been in use seven years.

“FARMS TO LET.”

There are, it is said, in the far-famed county of Norfolk some fifteen thousand acres of land in one certain district that would threaten to be very shortly unoccupied. On the lighter soils, ranging away from Brandon to Watton, many of the tenants find it quite impossible to go on any longer. Not that the Local Taxation sleight-of-hand has already been tried upon them, or that they have come to protest against paying an equivalent in rent for a set-off in rates. Not that they have precisely succumbed to “the three disastrous years” to which Mr. Sewell Read spoke so feelingly at Harleston. Not that they have allowed the cattle-plague to beat them, or a run of low prices to quite starve them out. These are, no doubt, serious difficulties against which the farmer has had to contend, but even these are scarcely sufficient to account for the curious fact of there being so much land to let in the highly cultivated county of Norfolk.

Let us turn again for a moment to that very useful discussion at the Harleston dinner, where the key-note was struck, perhaps unwittingly enough, very early in the afternoon. Sir Willoughby Jones in advocating the growth of sugar in this country essayed to show how “our climate was manifestly becoming dryer and hotter, as it was certain to do by the throwing down of hedges and the cutting down of hedgerow timber;” and climate, as we take it, will ever be a serious consideration in thoroughly testing such an experiment. But Sir Willoughby's argument was nipped in the bud; they don't throw down hedgerows and don't cut down hedgerow timber in Norfolk. Mr. Charles Howard, a stranger who seems to “have had his eyes about him” during his travels, said: “I never was in a county in my life where I saw so much useless hedge-row timber. I am quite certain of one thing—that the farmers of Norfolk do all they can to meet the exigencies of the times; it now rests with the

landlords to help them. The first thing they should do would be to allow them the privilege of cutting down this beastly rubbish—pieces of timber which if they stand fifty years will never be worth a sovereign; to cut down many of the hedge-rows; and to destroy the great pest of the farmers—the tenants of these wild hedge-rows—the rabbits.” And what did the natives, the farmers of Norfolk say to this? Luckily, it came to the turn of two or three leading men to speak after Mr. Howard sat down. And Mr. England was “quite sure if they did not grow too much timber, they harboured too many vermin;” while Mr. Henry Overman said as to the “more important subject of hedge-row timber, they were living in critical times; and, unless the landlords went a-head as fast as the tenants, good-bye to their having any tenants at all!” We have had no communication whatever with Mr. Overman on the subject of his speech, as it is not from him the rumour reaches us, but it does look as if he had those fifteen thousand acres of worse than waste in view when he said so much. But Mr. Overman said more, or said so much again with still greater emphasis: “If the landlords persisted in the over-preservation of game they would have to farm the land themselves. The misery of this might first of all fall upon the tenants, but it would afterwards come upon the landlords, and perhaps many of them would be able to find neither the capital nor the ability.” This is pretty plainly put, but it all brings us back to our opening fact that some of the Norfolk farmers are beaten at last, not by the times, not by any lack of means or ability, but from being denied fair play by their own landlords.

The continual discussion of this evil for some years past has no doubt tended to its occasional correction in some quarters, but in Norfolk, always a game-ridden county, the abuse is with many landlords rather on the increase than

otherwise; and, indeed, "An Aggrieved Norfolk Farmer" offers a very likely reason for this. He says in so many words: "Now, I am a right loyal subject, and wish well to my Queen and all her family. But one fact I cannot shut my eyes against; that is, since his Royal Highness became a landowner in Norfolk we have double the game we had before, and this is caused by the eagerness of our country gentlemen to have the Prince for their guest, whilst the tenant-farmers have to pay the extra expense incurred by rearing an extra quantity of game for market, for the Prince, of course, must have an extra good day's shooting." Putting His Royal Highness quite out of the question, there is no possible doubt but that as a rule the higher the rank of the so called sportsmen the greater the slaughter.

It is well to take a district so celebrated for its superior cultivation as "the frightful example" of such excesses, and it is wholesome to have the plague-spot pointed out by a man in many ways so successful in his vocation as Mr. Charles Howard. The Norfolk farmers may not take to Shorthorns, perhaps, as Sir Willoughby Jones would put it, the *climate* of the eastern counties does not altogether go to ripen these high-bred animals; but they can grow polls, and Devons and Downs, and horses and barleys, all of the very best, and yet still Mr. Howard significantly shakes his fore-finger at them, and says "I am not going to find fault with your farming, but if you don't look out you will no longer hold the position you have done; other counties will soon trip you up." No, no, Mr. Howard, it will not be any other county, not even Bedfordshire that will trip Norfolk up; but what will drive the Norfolk farmer from "the position he has so worthily held," will be the hedge-rows, the rabbits, the battues, and the landlords. Down in Devonshire the other day, Mr. Knowles, when following Canon Girdlestone said, "The large landowners cultivated their land in the outset, but finding it did not pay, let it off. He would ask what was the reason it did not pay? Because it was so over-run with hares and rabbits. The owners of coppices and preserves ought to pay much heavier taxes than they did." It would so seem that here, once again, from the same causes we arrive at very different results. In the West the owners have been in the habit of farming the land themselves until they can do so no longer, when they let it out to tenants. In the East the tenants have been in the habit of farming the land until they can do so no longer, when they return it to the owners; the reason being precisely the same. As Mr. Knowles says, they find that holding land does not pay, because it is so over-run with hares and rabbits. Sir Massey Lopes has, if we recollect aright, in his scheme for the re-adjustment of local burdens, some sort of penalty in store for these coppices and preserves which they are denouncing in the West almost as energetically as they are hedgerows in the East; but how would such a proposition fare with the county members of the House of Commons? On this subject there is no class in Parliament so thoroughly selfish, or so unmindful of those they are supposed to represent. The Farmer's Friends would tax the farmer's gun, or if they do not dare say so much they carefully keep out of the way. It should be the business of Mr. Sewell Read and Mr. Pell, who, acting for Mr. Read, carried the occupiers' exemption from the gun licence, to have the division list extensively circulated, and then Suffolk and Wiltshire may see how much it has to hope for and how little to depend on. In Norfolk, to be sure, if the heavy game-preservers turn farmers they can represent their own interests in this way, and that will tend very much to simplify the matter. As some people are arguing out the business of betting just now, "every man has a right to ruin himself if he likes."

THE GAME EVIL.

TO THE EDITOR.

SIR,—I have read with pleasure, for months past, your able articles on the game question, and feel mortified at the apathy and indifference of my own county on this momentous question, and disappointed beyond measure with our "farmer member," Mr. C. S. Read, for it is seldom he opens his mouth on the subject, and then generally says nothing, or worse than nothing. Our Scotch brethren are alive to the prize at stake, and speak out with that manliness which ought to put to the blush many of our English counties, especially Norfolk, which, as yet, has done nothing towards the amelioration or repeal of those grinding laws that nine-tenths of our farmers would delight to see, not modified, but repealed. Yet they stand still, quietly looking on, *afraid* of their landlords, afraid to risk anything, but keep in the background, hope others will do the work; and, when the battle is over, if a victory is won, would then valiantly come to the front and reap the benefit.

If we look closely into the matter we shall find there is a cause why our large farmers, or rather leading farmers, do not speak out on the game question—it is, they are sporting men themselves. They ape the Esquire, and in some circles are very extensive gentlemen on a small scale. Many landlords know the weak side of these gentlemen, and, as it were, propitiate them by giving them a few days' shooting during the season. I am sure it would amuse you, Mr. Editor, could you see and hear these would-be gentlemen-sportsmen the following market-day at dinner—how they take every opportunity of showing their position and standing in society, by informing the company what they did, how they did it, and how many they bagged to their own gun when they shot with the Squire, Sir John, or my Lord so-and-so.

But I will leave the Norfolk farmer to the consolation of his own thoughts, for you must bear in mind no set of men in any county, from the inmost recesses of their hearts, have a more bitter hatred of the game-laws than the men who till the soil of Norfolk.

To return to the game-laws, which every honest and fair dealing man must regard as being as unjust and demoralizing to the poor man as they are injurious to the tenant farmer, I say the injury they inflict upon the tenant is incredible, to say nothing of the heartburnings occasioned by the insults he is continually subject to from that tenants' pest, keepers, who generally are more arrogant than their masters.

But there is another reason for reform, and that is, the enormous amount of food destroyed. In this county it is immense, as it is no exaggeration to say it is 10 per cent. on all grain and root crops, with a like proportion on all artificial and natural grass. And all this waste, in the face of an increasing population, for what? Why, to provide the upper crust of society with amusement at the tenants' expense. Perhaps some may say this is a matter between landlord and tenant; but I beg to say it is not the case, for if you find here and there a landlord who deals justly and truly with his tenants, and keeps his word (which too many do not) as regards the amount of game to be preserved, he cannot protect you from the neighbouring landowner, and from his swift-footed army of devils called hares and rabbits, which invade his land by night, and devour and destroy his crops like locusts. It is a lamentable and incontrovertible fact that the generality of landlords, however estimable their characters in other respects, have no hesitation in breaking faith with their tenants on the game question, keeping double and treble the number agreed upon at the time of hiring; and this intolerable injustice has to be endured from the man having invested his capital in the land. The most the tenant dare to do is to make a quiet and respectful complaint; for a manly and stout determination to have the terms of his agreement carried out would in most cases be followed by a notice to quit; and poor, helpless John Hodge would have to budge, and leave his capital in the soil behind him, whilst the worthy landlord can chuckle over the game he has played, and look out with soft and honeyed words for another dupe.

The remarks that I have made refer more especially to ground game; but the well-being of society demands that the game-laws should be done away with altogether, in consequence of the demoralizing effect they have upon the lower classes. Just suppose an industrious, contented, respectable

labouring man is set to trim a hedge in June, and in the course of his work he falls in with a pheasant's nest with ten or twelve eggs. It is well known (for it is no secret) that gentlemen buy each other's eggs and, without doubt, some of their own. The price is generally 1s. each; so that such a nest would be worth at least 10s. See what a temptation this is to a poor man who works all day for 2s., and sometimes less. He takes it, and, if not found out, looks for more, until he becomes a night poacher; and the man who would otherwise have been an honour to the sphere of life he moved in has, through the cursed game-laws, become a poacher, a thief, a burthen to society, and perhaps a murderer. How much longer in this enlightened age are those things to be tolerated? Are we to be compelled to give such an education to our labourers' children as will make them dissatisfied, and unfit them for the work they have to do? Are we to be prevented from employing the hands we like in our fields in consequence, as it is alleged, of the contamination of the sexes, when it is well known, if separated in the day, they will mix together at night? Is it not a farce there should be all this motherly care for the good training of the humble classes, and yet allow the monstrous game-laws to remain untouched? And why is this so? Because it interferes with the interests and amusements of the law-makers themselves.

Now, I am a right loyal subject, and wish well to my Queen and all her family. But one fact I cannot shut my eyes against: that is, since his Royal Highness became a landowner in Norfolk we have double the game we had before, and this is caused by the eagerness of our country gentlemen to have the Prince for their guest, whilst the tenant-farmers have to pay the extra expense incurred by rearing an extra quantity of game for market, for the Prince, of course, must have an extra good day's shooting.

It is this excessive preservation of game that produces straitened circumstances and great privation amongst many of the tenant-farmers; some quite ruined, and some, driven to the depths of despair, have lost their reason. Think of this, you game-preserving landlords, and draw what comfort from it you can. Hoping you will insert this in your valuable journal,

I am, Mr. Editor,

AN OBSCURE AND AGGRIEVED NORFOLK FARMER.

West Norfolk.

THE GAME EVIL IN NORFOLK.

TO THE EDITOR.

SIR,—I should not have considered it necessary to reply to the personal observations of your "obscure and aggrieved Norfolk farmer," but as chairman of the Norfolk Chamber of Agriculture I must call his attention to the important and spirited meeting of that Chamber on the Game Laws held about a month ago. Both the amendment and resolution, which were carried, emphatically condemned the over-preservation of ground game, and suggested practical means to remedy the evil. Almost all the speakers denounced the present game laws, and there was no shirking responsibility and no endeavour to break the discussion. I think the Norfolk farmers at that meeting and elsewhere have spoken out manfully, yet respectfully, and I am not aware that the Scotch tenantry have done more, for at present all their efforts to amend the grievance have ended in the production of some half-dozen bills which, instead of showing an unanimity of opinion, display a singular amount of division upon the subject.

I would also state that I moved the Norfolk resolution as an amendment to one of the propositions of the Central Chamber of Agriculture. Finding the meeting greatly in favour of the original proposal, I withdrew it, and it is possible that what I said may not be regarded by all my brother farmers as "worse than nothing." At any rate I have since had the cold shoulder from sundry game preservers, and also, I am thankful to say, the thanks of many tenant-farmers.

I am, sir, your obedient servant,

CLARE SEWELL READ.

The Farmers' Club, Salisbury Square, London, July 7.

MOWING MACHINE TRIAL IN DEVONSHIRE.

A trial took place at North Molton of mowing machines, under the auspices of the North Molton and Twicken Farmers' Club.

Out of the thirteen entries nine appeared. The makers and who entered the machines were as follows: Samuelson, those Wood (wood frame), Wood (iron frame), Howard (Bird, North Molton), Bamlett (Bird, North Molton), Burgess and Key, Page, Lewis and Hoole (Bird), Wood (Dockings). The trial ground was steep and ridgy, and the judges ordered a second trial of the following machines: Samuelson, Burgess and Key, Wood (iron frame), Wood (wood frame), and Bamlett's. With the exception of Messrs. Samuelson's and Wood's machines they were worked by labourers of the district. After a long and patient trial the judges awarded the prizes as follows: First prize of £10 to Samuelson, second of £5 to Wood (iron frame), and commended Bamlett. The judges were Messrs. Buckingham (Aller), Passmore (Whitcott), and Breally, machinist (Molland).

MOWING MACHINE MATCH AT PRESTON.

The following decision was given, on Friday the 8th, for the Challenge prize of £50 by the judges—Mr. W. Clarke, Bishopham Farm, near Ormskirk; Mr. Henry Neild, The Grange, Worsley; and Mr. Christopher Richmond, Elm House, Thornton, near Liverpool. Their Report ran as follows:—

Trial of mowing machines near Preston, in the match between Messrs. Picksley, Sims, and Company, of Bedford Leigh, Lancashire, and Mr. A. C. Bamlett of Thirsk, Yorkshire:

	A. R. P.	Lot.	Lot.
Field No. 1, consisting of	3 2 33	allotted A and B.	
Field No. 2, consisting of	3 1 30	allotted C and D.	
Field No. 3, consisting of	6 2 24	allotted E and F.	
Field No. 4, consisting of	6 0 25	allotted G and H.	

Lot A fell to Mr. Bamlett, whose machine commenced at 6 12 and finished at 8 10. Lot B fell to Messrs. Picksley and Sims, whose machine commenced at 6 21 and finished at 8 14, and we unanimously decide the work on Lot B is such the best.

Lot 2, divided into lots C and D: Both machines commenced work at 8 40. Lot C fell to Messrs. Picksley, Sims, and Co. and was completed at 11 9. Lot D fell to Mr. Bamlett, which was completed at 11 44. The work done is pretty equal in merit, but slightly in favour of Messrs. Picksley and Sims. This field had been very imperfectly picked, and abounded with stones and clinkers; the manure had been badly spread, and the machines were very severely tested by this neglect.

No. 3, divided into E and F: Both machines commenced operations about one o'clock. This is an awkwardly shaped field for a mowing machine abounding with grips and other irregularities of surface. Lot E fell to Messrs. Picksley, Sims, and Co., and lot F to Mr. Bamlett. Both parties completed at one and the same time. A singular quality of work was manifested, our decision being that both sides of the field were equal; but the centre portion is in favour of Messrs. Picksley, Sims, and Co.

No. 4, divided into lots G and H: Lot G fell to Mr. Bamlett, who commenced at 6 5, and finished at 8 59, and lot H to Messrs. Picksley, Sims, and Company, who commenced work at 5 55, and finished at 8 56. We decide that G, on the whole, is the best work we have seen during the day; but it is only just to say it is the most favourable portion of the whole ground for the operation; while lot H had some open cross drains of a most trying description for a machine to encounter. The time actually occupied in the work by Messrs. Picksley, Sims, and Company, was 11 hours and 55 minutes, and by Mr. Bamlett, 12 hours and 31 minutes, being 33 minutes in favour of Messrs. Picksley, Sims, and Co. While we acknowledge the remarkably close competition in this unparalleled trial to be almost a tie, we are unanimous in declaring our award to be, under the conditions of the agreement between the competitors, in favour of Messrs. Picksley, Sims, and Co. The terms of the trial were: The mowing of ten acres with one and the same machine, with two knives only, with one driver, and same pair of horses; no assistance of any kind allowed, such as sharpening the knife, oiling, or the like—all of which conditions were rigidly carried out. Quantity, time, and quality of work were the tests of excellence.

One of the judges writing to us says; "You will agree

with me it is an unparalleled test, not only to machines, but to horses especially, as also to man. You will note that the judges were finally thoroughly unanimous, and the contest almost a tie, but still fairly and well won by the Lancashire firm. I coveted all the long day that yourself had been eye-witness amongst the great concourse of assembled farmers and others; but the details will explain

the salient points of this most important contest and achievement of mechanical skill over the rough uneven ground. It was marvellous that the machines did not smash; no one could credit the test they underwent unless by witnessing it. After what was seen yesterday, in small, rough, out-of-shaped fields, with gutters, &c., no old prejudice can be tolerated against using these machines."

TENANT RIGHT.

At the last meeting of the Ixworth Farmers' Club Mr. HARRISON said he would divide his subject into four different heads, viz.: First, the Landlord; second, the Tenant; third, the Labourer; fourth, the Community at Large. First as to the landlord. It has been said that if tenants are to be compensated for the outlay of their capital upon their different occupations when leaving the same, that the landlord will be injured thereby. Now to this argument I emphatically demur, and how the landlord is to be injured by the outlay of the tenant's capital, in the improvement of his occupation, I certainly have yet to learn. It is certainly true there might not be so many applicants for farms as at present; so much the better, for the landlord and his agent too. Instead of having 30 or 40 applicants as is frequently the case, would not three or four practical men of business to choose from, be much better for all parties concerned? I cannot find words of my own to prove the fallacy of such a statement, equal to a quotation I saw in print a short time since. A gentleman (Mr. Caird), as long ago as 1850, writing to the *Times* newspaper, and speaking of the Lincolnshire Compensation Clauses, says, "Till the reign of George III., the county remained in a neglected state, the fee simple of the now cultivated wolds and heaths, worth little more than their present annual rent." He says further in the parish of Lincoln, six years ago, four tenants renting 4,000 acres of land at £125 each, or 2s. 6d. per acre, became bankrupts. This same land is now let for upwards of £4,000 a-year, paid by prosperous tenants, and it is the custom of landlords to refuse any tenant that objects to the payment of compensation for unexhausted improvements. Perhaps some gentleman may be led to think that corn was very cheap at that time, but it was not the case, for in looking for the price of that year, I find it £5 13s. 10d. per qr. I could bring forth many proofs from my own experience, to show that this Tenant-right question would prove of equal benefit to the landlord as to the tenant, but I forbear as I have already exceeded the limits I intended for this part of the subject. Next as to the tenant. Being an humble tenant farmer myself, I should have preferred passing over this part of the subject altogether, but then a link would have been wanting to have made this paper at all a reasonable one. I cannot, therefore, forbear to say a few words, to prove to you, gentlemen, that it is a great injustice that one man shall sow, and another reap the fruits of the other's outlay. I will suppose a case, and are there not a great many to be found? of a man hiring a farm in a thorough bad state of cultivation; he throws all his energies and all his capital into it, and perhaps spends the best part of his life in the improvement of his occupation. The hand of death strikes him down, he is numbered with the dead, and the farm he has spent his health and his wealth upon, passes into other hands, with only a common valuation. Now if the Lincolnshire system was generally adopted, this crying evil could not take place, and it would be far better for both landlord and tenant, inasmuch as there would be encouragement for the outlay of capital. I pass on to the third part of this subject, the labourer, and I believe this part of this paper to be of the utmost importance, and I do feel it needful to say a few things upon the different modes of letting land, to show how the labourer is benefited or injured thereby. There are several modes of letting land in this country, but the principal ones are these, viz., by lease, and by six months' notice. Now both these are unsound in principle, standing alone. If you take the lease, without compensation clause, what does it do for an enterprising tenant beyond securing to him his occupation up to the time for which he had bargained for the same. Suppose we say the lease is for twelve years, and the farm in a bad state when he enters, it will take four years to get it into only middling order, and without being

able to pay any rent for it out of the profits; then four years more to bring it up to the mark, and what then? Why, eight years gone, the tenant begins to ask himself a few questions about the remaining four years—several labourers are discharged, the grazing stock is suspended, and all kinds of little improvements laid aside. Then there is the six months' notice. This is much worse than the lease standing alone; no security whatever, and but little chance of any quantity of labour being employed. I don't say but that there are a few cases, with noblemen and gentlemen that are desirous to do justice under such agreements, but they are the exception and not the rule, consequently the labourer must suffer thereby. The question will then arise, how are we to improve on the present system? To this question I would reply, give two years' notice, make it binding by law, pay for all unexhausted improvements, such as draining, mucking, claying, seeding, and cleaning land, all kinds of feeding stuffs consumed upon the farm, in proportion to time. While I strongly urge the justice of this state of things, I would call upon the negligent tenant to compensate for all dilapidations, and I firmly believe if such were the case the poor would be much better employed than at present; but I must not dilate any longer on this part of the subject, but pass on to the fourth and last part, being the community at large. I need not say much upon this head. It is well known that the consumers must be losers, if the land is not half cultivated and the poor not half employed. The quantity of corn and meat required for this country is enormous, consequently every effort ought to be made, and every encouragement ought to be given for the full development of the capabilities of this our sea-girt isle. It is well known that the working population are the consumers, both of food and raiment; and I firmly believe that if greater security was given for the outlay of capital than at present, that a great boon would be conferred upon the community at large, and that large tracts of land not yet cultivated at all, and a very large portion as yet not half-farmed, would be made to yield large crops of all kinds for the well being of our fellow-creatures.

Mr. W. MATTHEWS was in favour of doing away with the landlord's priority of claim to rent. This would lead to Tenant Right, because the landlord's interest would then be the same as that of the tenant. What was wanted was security, and without that outlay could not be expected.

Mr. MANFIELD held that alterations might be made which would be for the benefit of landlords, tenants, and labourers. This might be either by a lease of the most liberal kind, a system of Tenant Right, by which a farmer was compensated for unexhausted improvements, such as draining, marling, and claying, and also for feeding stuffs used. He would give no compensation for artificial manures used, because he believed they were taken out of the land almost as fast as they were put in; but when a farmer had spent a good deal in oilcake, and was called upon to leave at very short notice, it was a great injustice to him, because there was a lot of money left in the land. The valuation, however, should not be in proportion to the price paid for the food, but according to its nature. He would make it as nearly impossible for a tenant to lose by being subject to six months' notice the capital he had put into the land, as it was now for a landlord to lose his rent.

It was asserted by several members that the effect of the landlord's priority was that farms were sometimes let to men of straw; whereas without it they would get better tenants—men of capital, who would farm the land better.

Mr. HATTEN said he always endeavoured, in hiring a farm, to make the best bargain he could, but so long as there was so much competition as there was at present one could not hire exactly as one liked. They could not get paid for unexhausted

improvements unless the landlord consented to it, for if one would not take a farm, another would. In his opinion it would be for the interest of the tenant and also of the landlord if unexhausted improvements were paid for, but then they must be real ones valued by a disinterested person, for some of them had fancies in farming, and what one considered an improvement, another would not.

Mr. MILLER said the present position of affairs was not satisfactory, and was capable of some considerable improvement. It seemed to him a matter completely of private arrangement between the parties, and one in which no outsider could interfere. When a tenant had no definite holding, but hired from year to year, they fell back upon the custom of the country, and it might be a question whether that was sufficiently defined. It offered certain compensations, and the question was—were they sufficient? Valuations might be brought down by the landlord paying the rent and charges upon falls himself, and thus room would be made to allow for unexhausted improvements, without materially enhancing the amount of the valuation. It was a great evil if a young man's whole capital was locked up by a valuation, for his resources were thus weakened, and he was crippled for want of capital.

The CHAIRMAN, Mr. E. Green, M.P., said he had a difficulty in deciding whether he should prefer a lease or a tenancy from year to year, with two years' notice to quit, and a compensation for unexhausted improvements, suitable to the farm he occupied; for what were unexhausted improvements on one farm would not be on another. When a man was going out he should have two years' notice, but it was a hard thing for all—the outgoing and incoming tenants and the labourers. They also know that the suffering generally fell upon the labourers, for at the end of a lease there were not so many men

employed. Again, it was stipulated in every lease that a farm should be cultivated in a husband-like manner, but what remedy had a landlord against a tenant if he left a farm in bad condition. If a tenant had broken the covenants, he had known of a landlord's recovering, but never when, while fulfilling his agreement, he had left the farm in a bad condition. Yet this was a loss to the landlord, for he must let it at a lower rent. There was one covenant he would never insert in a lease if he were letting land—that about selling hay off the farm, as he held there were times when the tenant could make much more of it by selling it than by consuming it, and afterwards bring the price back again in feeding stuffs. As to priority of claim, he believed it would be a great evil to do away with it, for in the first place the landlord would in all probability, if it were abolished, require a bond for the rent, and would insist upon having the rent punctually; and although it was desirable that men of no capital should not be allowed to take farms, yet how many hundreds of men had risen by being allowed to take a farm with borrowed capital added to some little of their own! As to the covenants, he did not think they could depart from the four-course system with advantage; he knew if he did on his own land he saw the difference in his crops. His only covenants in a lease would be as to the last two years—supposing two years' notice to be given—for excepting at that time he did not believe a man could farm badly and not injure himself. He thought they had come to the conclusion that they would desire to make their own bargains with their landlords, but that if they could make an improvement in the relation of landlord and tenant, or in that of the incoming and outgoing tenant, they would be doing good. He did not see how they were to legislate in the matter, but he was in favour of giving as much liberty as possible to tenant farmers.

BUYING BY ANALYSIS.

Whatever may be the eventuality of the next harvest as regards cereals, it is quite certain that there will be a great deficiency of the fodder-crops for winter—viz., straw, hay, and swede turnips. What white turnips may grow to—anything or nothing—is uncertain. Now these are the crops which make milk, mutton, and beef in the first instance, and in the second place result in a supply of manure for the growth of future crops upon the farm. It is quite clear, therefore, that a demand for imported feeding-stuffs will spring up to some extent proportionate to the deficiency of the home crop of fodder; and a similar increased demand for artificial manures will arise from the deficiency of home-made manure, consequent on the same case and circumstances. The necessity for great attention to this part of his business is now imperative upon the farmer; nor is it the least important element in the state of affairs that we now contemplate that the farmer is called upon to bring in fresh capital to make these necessary purchases immediately after the loss of his crops, and in consequence thereof. The loss this year, in fact, however considerable it may be in itself, entails a further investment of capital for next year's purposes. In addition to this, we have the announcement of the advance of price of guano; and this must be taken in company with the well-known decrease of quality in the article. All these facts combine to make it clear that upon the manner in which this great and costly necessity of the farmers' occupation is carried out his position and profits will greatly depend.

The prevalence of the system of adulteration in nearly all articles of commerce, and especially in articles of consumption, has been recently exposed in the papers and discussed in the House of Commons, as such revelations have assisted to make public opinion ripe for legislation. The doctrine that the mixing of materials of a low quality with those of a higher quality, and even that lower-

ing the saleable price of goods by admixture with a cheaper article, though the same be a harmless ingredient, and the compound a necessity of trade, has been in force some time. The fallacy is, however, now apparent, when the evils that it has led to are fully developed. That the public will have low-priced articles may be admitted; and natural it is that the labourer, who earns his money, should be careful in its expenditure. He gets the low-priced, because he thinks it the cheapest article; as such it professes to be, but such it is not.

There can be no doubt that at this moment equally reprehensible modes of manufacturing spurious manures and feeding-cakes are very prevalent. The immense number of dealers and agents for manures and feeding-stuffs who are to be met with in every market bear witness, not only to the extent of the trade, and its importance to the farmer, but also to the facilities afforded by it for making profit out of the farmer's necessities. It could not otherwise have covered the large commissions paid to travellers and the enormous incidental costs as well as the expenses proper of the manufacturer. Enormous charges over prime cost have thus been paid by the farmer, even though the article sold was what it professed to be.

The lessons taught us by the inquiry into the adulteration of seeds last year are before us; when the leading merchants and growers came forward to state that they should be glad of legislation to put a stop to the nefarious practices of the trade, by which they were compelled, wittingly or unwittingly, to sanction the arts of deception, by selling adulterated and kiln-dried seeds purchased to sell at a low price. Similarly, we believe, there are yet many manufacturers and merchants who have invested considerable sums in works for the preparation of manures, oil-cakes, and feeding-meals, who would be glad indeed if we could by any legislation get rid of those

"Free Lancers" in the trade, who are unscrupulous as to what they offer the farmers, provided that it will sell.

Incidentally then, we say, follow the example of the great seed houses, and aid us in detecting and exposing that low practice in the trade which depends on selling the farmer an article by a name to which it is not entitled. If the leading houses agree to sell by analysis with a warranty only, they will do much towards purifying the trade, and Parliament will be induced to set a trap to catch the night-hawks who are abroad to pounce upon the unwary pigeon.

In a similar manner it is for the intelligent farmer to realize his true position at this moment, and to take cognizance of the increased call upon his purse for the articles of manure and food, the prevalence of adulteration, and the willingness of the best houses to co-operate with him in putting down the imposters in the trade; and this he can do by dealing only with those houses that sell by analysis, with a warranty.

We are not going to trace the details of the adulterations that are now prevalent in the trade connected with agriculture. The great evil is that most articles are not made properly, and then at the lowest price compatible with their cost; but are mixed before sale with cheaper substances, so as to be sold at a certain figure, which is low enough to captivate the farmer, and to leave a great profit. Some years ago these adulterations were manipulated so clumsily that detection was easy. Stones and shells were added to bones, gypsum and water to guano, mud and sand to linseed-cake; but now lower qualities of guano are mixed with the best, inferior linseed-cakes with the higher priced, and various kinds of meals, braus, and pollard with feeding-cakes of every description, so that it is impossible to detect by cursory inspection, or, indeed, by any examination short of chemical and microscopic analysis, the true value for agricultural purposes of the article—be it manure or feeding-cake—that is offered to the farmer.

We are aware that want of self-confidence is not a common trait in the farmer's character; but in this instance modesty will be a merit. If he attempt to buy his artificial manures and feeding stuffs as he buys his pigs and his sheep, according to his own judgment, he will certainly come to grief, and pay for more than he buys, and less than he bargained for. We cast no general censure on the trade in which iniquities, we are sorry to say, exist. There are many "honourable men" in the commercial department of agriculture; and many respectable men, who sell these articles to farmers, are not the parties who make them, and they may possibly be ignorant of the exact composition of what they do sell. They unwittingly, however, assist in a system which is prejudicial to agriculture and inconsistent with commercial morality; and it is for them to become aware of the nature of the article they *do* sell, and to sell it as such; as it is equally the duty of the farmer to ascertain, by a proper analysis, the composition and com-

mercial value of what he is about to buy. This once done, the seller will soon look out for himself, and no longer utter counterfeits, and escape consequences, on the plea that he did not *coin* them.

It is only, then, for the farmer to assume the modesty which should accompany ignorance, and say to the dealer, "I am profoundly ignorant of the composition of the article that you offer to sell, but I will buy it subject to the analysis of a chemist, and to his opinion as to its being the article you call it." We are aware that it may appear humiliating to confess ignorance, but it is not so really. Newton felt how narrow were the confines of the known compared with the unknown when he described all the knowledge he had acquired as a few pebbles gathered on the shore of the sea of knowledge; and the English agriculturist must not be too proud to confess his own inability to contend with the sharp practice of the unscrupulous trader; while he must, at the same time, seek the protection which science only can give. The manufacture and composition of artificial manures is a scientific process, and as a study is interesting and instructive; but the art of adulteration, so as to secure cheapness, and escape detection is one that is equally dependent on scientific knowledge and skilful manipulation. It is only, therefore, by the aid of science that such attempts can be foiled. The same hand that shaped the sword can forge the shield.

To a considerable extent, then, the prevention of adulteration is in the hands of the farmer; for he is sure of the assistance of the best houses in the trade in carrying out a system which will do away with the unfair traders by doing away with the means by which they live; that is, the system of buying cake and manures by the sight, the touch, and the smell, all of which senses, however acutely the farmer may be endowed with them, may be deceived.

It is no use, however, waiting until Chemical Societies are established in all the rural districts. They will one day be as plentiful as parish schools. In the meantime, however, the steed may hunger while the grass grows, and the farmer, in the position he now occupies, with an important outlay to make, must act as other traders do who are compelled to use all the means in their power to obtain information as to the quality and real value of the merchandise which they buy. The trader who buys brandy, cloth, or tea, employs agents, travellers, or brokers of special skill to ascertain the all-important point of the quality and value of the goods in question, and the chemist is the only agent the farmer can employ, to secure him his money's worth of the article which he has to buy of the *trade*.

With the fact of the great outlay absolutely necessary under the circumstances of the present crops, and the fact that special efforts will be made by the trade to make the most of the opportunity, it is in the farmer's power, and it should now be his practice, by the simple mode we have proposed, to encourage the fair trader, and to protect himself,

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

MONTHLY COUNCIL: *Wednesday, July 6.*—Present, the Duke of Devonshire, K.G., President; the Earl of Lichfield, the Earl of Powis, Major-General Viscount Bridport, Lord Kesteven, Lord Tredegar, Lord Vernon, Sir Massey Lopes, Bart., M.P., Sir A. K. Macdonald, Bart., Sir H. B. Vane, Bart., Sir Watkin W. Wynne, Bart., M.P., Mr. Bowly, Mr. Cantrell, Colonel Chaloucr,

Mr. Davies, Mr. Dent, M.P., Mr. Druce, Mr. Holland, Mr. Wren Hoskyns, M.P., Colonel Kingscote, M.P., Mr. Leeds, Mr. Pain, Mr. Randell, Mr. Ridley, M.P., Mr. Shuttleworth, Mr. Statter, Mr. Stone, Mr. Thompson, Mr. Torr, Mr. Webb, Mr. Wells, M.P., Mr. Whitehead, Mr. Jacob Wilson, Professor Simonds, and Dr. Voelcker.

Earl Howe, of Gopsall, Atherstone, Warwickshire, was elected a Governor of the Society.

The following new members were elected :—

Allix, W. Townley, Campsea Ash, Wickham Market.
 Baker, Rev. R. Loubridge, Ransden, Emsstone, Oxford.
 Bayley, Rev. W. R., The Vicarage, Cassington, Oxford.
 Blgrave, Edward, Oxford.
 Bowen, Edward H., Kingslow, Bridgnorth, Salop.
 Bowen, Humphrey C., Chesterton, Bridgnorth, Salop.
 Boydell, Harry S., Sulham, Reading.
 Bridgland, Stephen, Springfield, Tooting.
 Briggs, D. Grant, Calcethorpe, Louth.
 Coley, Henry, Neachley Hall, Shifnal.
 Croysdale, John, Whitley Bridge, Pontyfract, York.
 Devaux, Alexander, 20, Avenue Road, St. John's Wood, N.W.
 Douglas, James Bryant, 1, Hampden Street, Nottingham.
 Ellett, Robert, Cirencester.
 Everett, William Spencer, Carlton Colville, Lowestoft.
 Fox, John, Coalbrookdale, Wellington, Shropshire.
 Furness, Captain M. W., Rugby.
 Garland, T. Bland, Hillfields, Reading.
 Gibson, Joseph, Wheelprigg, Kirkby Lonsdale.
 Gillart, Richard, Llynhoeld, Machynlleth, Montgomery.
 Greenaway, George Cattell, Binswood Cottage, Leamington.
 Griffin, George, Torton, Kidderminster.
 Hathorathwaite, W., Lower Lee House, Higher Wyersdale, Dolphinholme, Lancaster.
 Hill, John, Wistaston Manor House, Nantwich.
 Howman, Henry A., Halloughton, Coleshill, Warwick.
 Humphrey, Arthur, Walpole St. Peter, Wisbeach.
 Isham, Arthur C., Weston Turville, Tring, Bucks.
 Jones, Thomas, English Frankton, Ellesmere.
 Kelsall, George, Marton, Baschurch.
 King, John Robert, North Ormsby, Louth.
 Knight, William Edward, 14, Carter Gate, Newark, Notts.
 Marker, Richard, Combs, Honiton, Devon.
 Martin, Antoine, Mahagon, Geneva.
 Martin, Henry W., Littleport, Isle of Ely.
 McHattie, John, Chester.
 Meredith, David, Yeatsall, Rugeley.
 Middlemore, Colonel, Thorngrove, Worcester.
 Mildred, Daniel, Preston, Cirencester.
 Miller, T. H. Singleton, Kirkham, Lancashire.
 Mort, William Martin, Baschurch, Salop.
 Moss, Benjamin, Ashington Hall, Rochford.
 Newton, John, Manor Road, Bermondsey, S.E.
 Nevell, Edward, Chawley Farm, Cunnor, Oxford.
 Noel, Captain Charles Ferratt, Bell Hall, Stourbridge.
 Norris, W. G., Coalbrookdale, Wellington Salop.
 Pickstock, Henry, Baschurch, Shrewsbury.
 Pratt, Frederick, Westmeon, Petersfield.
 Ridley, William Wells, The Abbey, Southam.
 Spiers, Richard James, 14, St. Giles Street, Oxford.
 Stratton, James, Chilcombe, Winchester.
 Stunt, Walter C. Brogdale, Ospringe, Faversham.
 Teece, Richard, Weston Villa, Baschurch, Salop.
 Thompson, T. Warren, 1, Claremont Bank, Worcester.
 Thorpe, Henry, Buckingham.
 Turner, E. Weston, Brereton, Rugeley.
 Waldo, E. Waldo Meade, Stone Wall, Edenbridge.
 Walker, Joseph, Chorlton, Nantwich.
 Ward, William, 41, St. Giles, Oxford.
 Weaver, William Richard, 108, Eastgate Street, Chester.
 Welch, Alfred, Southall, Middlesex.
 Weston, Philip, Coalbrook Hall, Wellington.
 Williams, Hugh, Chesterton, Bridgnorth.
 Worley, William, Stanton Harcourt, Eynsham, Oxford.

FINANCES.—Major-General Lord Bridport (chairman) presented the report, from which it appeared that the Secretary's receipts during the past month had been duly examined by the committee, and by Messrs. Quilter, Ball & Co., the Society's accountants, and found correct. The balance in the hands of the bankers on June 30 was £2,308 9s. 3d., and £3,800 remains on deposit. The quarterly statement of subscriptions and arrears to June 3, and the quarterly cash account, were laid on the table.

JOURNAL.—Mr. Thompson (chairman) reported that the Secretary had received a letter from the Secretary of the Société des Agriculteurs de France, stating that subscriptions promised to defray the expenses of the Congrès International of 1871 already amounted to a large sum, and that it has been decided to hold the Congrès during the last fortnight in May.—This report was adopted.

CHEMICAL.—Mr. Wells, M.P. (chairman), stated that the Secretary having reported to the committee that Messrs. Bradburn and Co. had addressed a letter to the Editor of the *Agricultural Gazette*, threatening him with legal proceedings, in consequence of his publication of the quarterly report made by the Chemical Committee of the Council last March, the committee therefore recommended that the Secretary inform the Editor of the *Agricultural Gazette* that the Society are prepared to hold themselves responsible for the publication of their own proceedings, and the reports of their committees, as furnished by the Secretary. The committee also reported that Professor Voelcker had reported to the committee the papers which he had furnished since 1855, based upon actual experiments made by himself or under his direction. Up to the year 1865 these experiments were carried out on the farm of the Royal Agricultural College at Cirencester; since then, by friends of the Professor, under his direction, and the papers published in the *Journal* are the result. The committee and the Professor request the co-operation of any member of the Society who will suggest and assist in carrying out further experiments of the same nature. The following is the list of papers published :

In 1855—Experiments on the comparative value of different artificial manures for raising a crop of Swedes.

In 1858—Experiments upon Swedes, with remarks on the manures employed, made in 1856 and 1857.

In 1860—Experiments with different top-dressings upon wheat, made in 1859.

In 1860—Experiments on Swedes.

In 1862—Experiments with different top-dressings upon wheat, made in 1859-'60 and '61.

In 1863—Experiments with different top-dressings upon wheat, made in 1862.

The preceding experiments were done on the farm attached to the Royal Agricultural College, Cirencester.

In 1864—1, Salt experiments on mangels; 2, field experiments on cloverseeds; 3, field experiments on clover in relation to the changes which take place in the field and stack in haymaking; 4, field experiments on crude German potash-salts and common salt on mangels; 5, field experiments on root crops; 6, field and laboratory experiments in relation to the causes of the benefits of clover as a preparatory crop for wheat; 7, field experiments on seeds and permanent pasture; 8, field experiments on mangels for the last *Journal*.

At present there are in hand for publication in the forthcoming *Journal*: Experiments on potatoes. And have in hand the results of several series of experiments in cloverseeds and permanent pasture, extending over several years.

Experiments are in progress this season on swedes and turnips, potatoes, artificial grasses, and permanent pasture. They are undertaken by Messrs. Coleman and Hull, York; Mr. Roberts, Haslemere; Mr. Cadle, Gloucester; Mr. B. Lloyd Baker, Hardwick Court, Gloucester; Mr. Norman, Aspatria, Carlisle; Mr. Wall, Durham; Mr. Lloyd, Hertford; Mr. Sharpley, Stiltthorpe, Louth; Mr. Kimber, Abingdon, who also has in progress experiments on the different forms in which phosphates are most beneficial to vegetation; comparative experiments with coprolites, precipitated phosphates, bones, soluble phosphates, &c.

The question of the variation in quality of guano having been again brought before the committee, and suggestions having been made that some standard of quality should be settled by the importers, and all cargoes valued accordingly, the committee advise that a communication be addressed to Messrs. Thompson, Bonar, and Co., the agents of the Peruvian Government, calling their attention to the many complaints sent to the Society as to the variable and inferior quality of guano as now imported, and asking them if they can propose any method of placing the trade on a more satisfactory footing, and giving some more certain guarantee of the quality of the cargoes imported.—This report was adopted.

GENERAL, OXFORD.—Lord Kesteven reported the following recommendations of the committee: That Professor Simonds be allowed the travelling expenses of not more than three veterinary assistants at the Oxford meeting; that the charge for additional land at Oxford, obtained at the request of the Council, amounting to £43 2s. 6d., be paid by the Society; and that a further sum, not exceeding £100, be granted for advertising the Oxford meeting.—This report was adopted.

SHOWYARD CONTRACTS.—Mr. Randell reported that the committee recommended that the approaching termination of the existing contract for showyard works be advertised before the Oxford meeting; that certain additional works at Oxford be executed according to the suggestions of the honorary director and the surveyor; and that the surveyor be instructed to prepare a draft plan of the showyard for Wolverhampton.—This report was adopted.

IMPLEMENT.—Mr. Thompson reported that, after full discussion of the different modes of dealing with the trials of steam-cultivating machinery, and of the kinds and amounts of prizes to be offered, it was resolved to refer to the Council the following questions:

- (1). What sum shall be allotted to the implement trials for 1871, bearing in mind that the published rotation restricts these trials to "machinery for the cultivation of the land by steam-power and traction-engine?"
- (2). When shall the meeting of the committee be held which shall fix the classification and conditions of the trials at Wolverhampton?

The committee recommended that the exhibitors of steam cultivating machinery at Oxford be invited to attend a meeting of the Implement Committee to be held in the showyard on Saturday, the 16th, at 3 p.m., and to offer for the consideration of the committee any suggestions which seem to them advisable with reference to the prizes to be offered at Wolverhampton. This report having been adopted, it was moved by Mr. Thompson, seconded by Col. Chaloner, and carried unanimously, "that a sum not exceeding £800 be granted for implement prizes in 1871." The special meeting of the Implement Committee to fix the classification and conditions of the trials to take place at Wolverhampton was fixed for Saturday, the 16th, at 3 p.m.; and the committee were ordered to report to a special Council meeting to be held in the showyard at Oxford, on Tuesday, the 19th inst.

A deputation, consisting of the Mayor of Wolverhampton and Mr. R. H. Masfen, on behalf of the authorities of Wolverhampton, was then received, to present an application for leave to substitute other fields for those which were originally offered, for the trials of steam cultivators in 1871. The question having been carefully discussed, it was moved by M. Randell, seconded by Mr. Jacob Wilson, and carried unanimously, "that this application be granted," it being understood that the Society could obtain, if required, 50 acres of strong land, at a cost not exceeding £10 per acre.

The following noblemen and gentlemen were appointed a General Wolverhampton Committee:—Duke of Devonshire, K.G.; Earl of Lichtfield, Earl of Powis, Viscount Bridport, Lord Chesham, Lord Kesteven, Lord Vernon, Lord Walsingham, Sir Massey Lopes, Bart., M.P.; Sir A. K. Macdonald, Bart.; Sir Watkin W. Wynn, Bart., M.P.; C. E. Amos, T. C. Booth, Edward Bowley, Charles S. Cantrell, John Clayden, D. R. Davies, Joseph Druce, W. I. Edmonds, W. F. Fryer, B. T. Brandreth Gibbs, Richard Hornsby, C. Wren Hoskyns, M.P.; Col. Kingseote, M.P.; Robert Leeds, R. H. Masfen, Richard Milward, Charles Randell, R. C. Ransome, M. W. Ridley, M.P.; William Sauday, Joseph Shuttleworth, Thomas Stratton, William Torr, Sir H. R. Vane, Bart.; F. Walton, James Webb, William Wells, M.P.; Charles Whitehead, Lieut.-Col. Wilson, Jacob Wilson; Mayor of Wolverhampton for 1870 and 1871, the Stewards.

On the motion of Mr. Thompson, the following rotation of districts,* recommended by the Country Meeting Districts Committee, was unanimously adopted:

Years.	Present Designation of District.	Proposed future Order of succession.	Place of last or future fixed Meeting.	Date of same.	Interval between last Meeting and the next, as per the proposed scheme.	Gain or loss to each district according to same.
1873	A	1	Newcastle ...	1864	9	- 1
1874	D	2	Bury ...	1867	7	+ 1
1875	F	3	Plymouth ...	1865	10	- 2
1876	C	4	Leicester ...	1868	8	- 0
1877	B	5	Manchester ...	1869	8	- 0
1878	G	6	—	1872	6	+ 2
1879	E	7	Oxford ...	1870	9	- 1
1880	H	8	Wolverhampton	1871	9	- 1

Mr. J. Dent, M.P., having withdrawn the motion of which he had given notice, Mr. Holland (chairman of the Education Committee) gave notice that at the next monthly Council he would move for a renewal of the education grant.

Mr. C. Whitehead gave notice that at the next monthly Council he should move that implements and machines used in the cultivation and preparation of Hops be inserted in the Society's classification of implements for which prizes are offered.

A letter from Mr. A. Welch in reference to a patent cattle truck, was referred to the Implement Committee.

A memorial from exhibitors of carriages was received, and the Secretary was instructed to inform the memorialists that the conditions of the Society's prize-sheet must be complied with.

* The districts, with their present denominations, are the following: (A.) Durham, Northumberland and North and East Ridings of Yorkshire. (D.) Bedfordshire, Cambridgeshire, Essex, Hertfordshire, Huntingdonshire, Norfolk, and Suffolk. (F.) Cornwall, Devonshire, Dorsetshire, Somersetshire, and Wiltshire. (C.) Derbyshire, Leicestershire, Lincolnshire, Northamptonshire, Nottinghamshire, Rutlandshire, and Warwickshire. (B.) Cumberland, Lancashire, Westmoreland, and West Riding of Yorkshire. (G.) Gloucestershire, Herefordshire, Monmouthshire, Worcestershire, and South Wales. (E.) Berkshire, Buckinghamshire, Hampshire, Kent, Middlesex, Oxfordshire, Surrey, and Sussex. (H.) Cheshire, Shropshire, Staffordshire, and North Wales.

THE FARMERS' CLUB IN BEDFORDSHIRE.

On Tuesday, July 12, following the example set by some previous chairmen, Mr. James Howard, M.P., invited a party of the members of the Farmers' Club to spend a day with him in Bedfordshire. These invitations, it should be understood, are mainly confined to the committee, to past chairmen, and to other members who have read papers at the monthly discussion meetings. The company on Tuesday was increased by the presence of certain other leading tenants who farm in the vicinity of Bedford; while the agricultural element of the House of Commons had not been passed over, although a morning sitting on the Irish Land Bill detained some of the honourable gentlemen who had promised to come. M. Lavcley, a well-known Belgian agriculturist, who wrote the paper in the recently-published Cobden Club series on Land Tenure in Belgium and Holland, was a close observer of the scene; and if the opening business at Oxford accounted for the absence of some members of the Club, English agriculture was still well represented in this way:

BEDS.—W. Armstrong. G. Battams. E. Crouch. W. Hipwell. C. Howard. W. W. Kilpin. J. Purser. M. Reynolds. C. Stephenson. J. Thomas. H. Trethewy. F. Wythes.
 BERKS.—T. Owen. J. B. Spearing.
 BUCKS.—E. M. Major Lucas. T. Morris.
 CAMBRIDGESHIRE.—A. S. Ruston.
 ESSEX.—J. Clayden. C. Hope (Barking).
 HERTS.—J. Bailey Denton. N. Rix. J. Ross. J. Weall.
 HUNTINGDONSHIRE.—T. H. Murfin.
 KENT.—R. Marsh.
 LINCOLNSHIRE.—T. B. Dring. G. Martiu. F. Sowerby.
 MIDDLESEX.—G. M. Allender. H. Corbet. W. Eve. J. N. Lee. T. Scott.
 NORFOLK.—R. Leeds. C. S. Read, M.P.
 NORTHAMPTONSHIRE.—Owen Wallis.
 OXFORDSHIRE.—Captain Dashwood. J. Innes. R. J. Newton.
 SHROPSHIRE.—G. Smythies.
 SUFFOLK.—E. Greene, M.P.
 SURREY.—L. A. Coussmaker.
 SUSSEX.—James Wood.
 WILTSHIRE.—W. J. Brown.
 BELGIUM.—Emile Loveleye.
 HOLLAND.—Baron Melvii Van Lynden. Smidt Van Gelder, sen. Smidt Van Gelder, jun.

Having ourselves so frequently enjoyed the opportunity of looking round Bedford and about Bedfordshire, we were desirous rather of gathering some first impressions than of repeating our opinions on all there is to be seen here. We consequently the more readily avail ourselves of the note-book of a member of the Club, a practical farmer who has written prize essays on agricultural subjects, and also distinguished himself by the able papers he has read at meetings of the club.

The party assembled at the Britannia Iron Works, about ten o'clock, and at once proceeded to inspect the works, which for space, uniformity of design, and general convenience, are scarcely to be equalled, and in which about seven hundred hands are employed. Passing from the landing wharf, where all the materials are landed, we enter a side door of a large building which is called the casting-house; here the coals, and iron, are raised by two hydraulic lifts to an apartment above, which communicates with three large vertical furnaces for melting the iron.

After witnessing the different processes of casting plough tops, wheels, riggers, and other small castings used in the various departments, we pass on to another building where the different castings are converted into wrought or malleable cast iron, by being heated in ovens; this is a most valuable improvement, and is of especial service to those who emigrate or live in lone places long distances from works, as the chance of breaking the old brittle castings, by carriage, putting together, or in after use, is avoided, as well as the vexatious expense and hindrance occasioned by having to send continually for fresh castings. Attention is next directed to a very small and ingeniously constructed two-horse portable engine used for pumping water, and worked at the small cost of 3s. 6d. per day. Next is a new patent for generating steam in separate tubes instead of all in one large boiler, the steam being conveyed by a small pipe communicating with the general receiver and applicable both for fixed and portable machinery. Then an engine is in course of construction for the purpose of steam ploughing; it has 42 vertical tubes, which strikes one on first sight as adding to the weight, although on inquiry we find such is not the case, but that the engine will be at least one ton lighter than the ordinary engine of the same size; while the increase of power gained will be very great, as it can be driven at a very high pressure with perfect safety. This is a most valuable invention, and is doomed to displace the old boiler, with its liability to burst. At this point we are painfully reminded that time, like ourselves, will not linger; as there is a long programme, we therefore pass on with a hurried step, through the different buildings for fitting-up reaping and mowing machines, for packing and for painting, and take a passing glance at the system of accounts, the revolving machine for polishing castings, the American steam hammer, the horse rakes, the double-furrow ploughs, and various other ploughs and harrows of every denomination for which this establishment has been so long and so justly celebrated.

The clock strikes twelve, and we find numerous vehicles waiting to convey us to other scenes. First there is the Bedford Town Sewage Farm, where about 100 acres are at present receiving the sewage from the town, but this will shortly be applied to 80 acres more. The crops of Italian rye-grass and cabbages are looking exceedingly well. The effluent water, after percolating through the soil, passes into the stream to all appearance perfectly pure. We are next conveyed to the Hoo Farm, Park Farm, and Clapham Farm, containing together about 629 acres, belonging to Messrs. J. and F. Howard, and farmed by them. After viewing the excellent stock, especially the pigs, and the various luxuriant crops of roots, wheat, and barley (there being but few oats, and those not so good), we pause in amazement and wonder how it is that dry as the season has been, none of these crops want rain! Is it because there has been an unlimited amount of artificials used to produce them? No; for we find that only 3s. 6d. per acre has been spent. What is it then? Why, the simple fact which most English farmers are daily opening their eyes to, that deep-draining and the steam-plough or cultivator have converted a cold barren clay soil, which only a few years ago was thought to be scarcely worth cultivating at a few shillings per acre, into a most fertile and productive one;

while the deep cultivation in a dry season like the present enables the roots of the plants to luxuriate and penetrate to a great depth, and thus obtain sufficient moisture, as the same means would in a wet season be equally serviceable in carrying off quickly any superfluous supply of water without materially lowering the temperature of the ground or retarding the growth of the plants. In estimating the wheat at 6 qrs. per acre, and the barley at 7½ qrs., with as much straw as can just stand up without rain, this seems to be put within bounds. Before returning to Bedford we drove round by Biddeham and viewed Mr. Charles Howard's beautiful flock of Oxford Downs, for which he is so deservedly celebrated, and his crops of corns and roots which are very good, the mangolds, swedes, and kohl rabi being the most luxurious we have seen this season.

The Britannia farms are worked on the eight or double four-course system, namely: 1, winter roots—kohl rabi and mangel wurzel; 2, barley; 3, beans; 4, wheat; 5, summer and autumn keep, as white turnips, rape, mustard, tares, cabbage, &c.; 6, wheat; 7, clover; 8, wheat, the end of the course. This course is subject at times to variations; if, for instance, sheep are on the autumn feed, too late barley or oats may be substituted for wheat. Two fields, which have been thrown out of course in consequence of drainage, are this year cross cropped. The area of cultivated land is over 330 acres, of which 40 acres are plauted with kohl rabi and mangel wurzel; 40 acres with white turnips and rape, and part fallow after tares eaten off, to be sown again with mustard and rape. The far field of roots were devoured by the fly, and had to be resown, but in consequence of the long dry weather they have grown slowly, each shower of rain bringing up a few more plants, so that until the last few days they were unable to hoe them. There were fatted on the land last year about 450 sheep, besides keeping a breeding flock of 200 ewes. In the yards are usually wintered between 60 and 70 head of horned stock of all ages. The Hoo farm is kept apart for weaning purposes, the young Shorthorn steers from which, this year in the month of May, realised 14 guineas each, the average age being little over 11 months. £105 worth of artificial manure is the bill for the whole farm, or 3s. 6d. per acre on the average; 334 acres arable (28 more just purchased, but not yet in hand), 230 acres of pasture, 47 acres of wood, total 629 acres. For this year's crops there have been applied 24 tons of soot; 15 tons were sown on land in preparation for barley, from which roots were carted off, and where barley is sown after wheat, while the remainder is put to the fallows where rape and white turnips are growing. The kohl rabi and wurzels have received dissolved bones at the rate of from 3 to 4 cwt. per acre.

There is but little to add to this, the general feeling being one of admiration at the excellence of both the corn and the root crops, the more especially when the difficulties of the season were taken into consideration. After leaving the sewage town farm the visitors were "hit very hard" at the outset by the appearance of the first field on the Britannia farms adjoining the high road. This was a piece of good ground planted in alternate drifts of mangold wurzel and kohl rabi, all as healthy, true through, and flourishing as if there had been the most genial of times for the growth of roots. The wheats, as our correspondent says, looked equally well; but although he and other strangers would put the yield at six quarters or more, those who know the land would rate five quarters at any time as a very capital crop. The day's drive was rendered more delightful by the beautiful views and "bits" of scenery by which the business of the occasion was here and there relieved—the Clapham Park fox-cove and the range over the Grand National Steeple-

chase Course—the peeps through the oaks and the elms in Bromham Park, and the gay water-party drifting lazily down the Ouse by Biddeham, and wondering much at the excited people who were studying the Oxford pen of ewes, or following the renowned John Brown up his double furrow. Perhaps, however, at the close of a long drive on a summer day as grateful a scene as any was the nicely shaded tent on the very brink of the river, and in the centre of the Caldwell Priory grounds; although still not to be quite oblivious of all commercial relations you enter through the Works, while ever and anon the noisy rattle of a goods train on the transpontine rail gives an over-eloquent orator a chance of re-collecting himself and his ideas. Shall we stay to say here how nicely the wines were tempered, how artfully the lobster salad was concocted, or how the very beef smacked of the Shorthorn, as the mutton was true Down—Oxford, if you please? But Mr. James Howard, as his venerable father before him, has often served the office of mayor, and the hospitality of the Corporation of Bedford has been famous since Goldsmith wrote or Captain Plume fretted his hour upon the stage.

THE DINNER.

Mr. James Howard, M.P., of course presided, the vice-chair being taken by Mr. C. Howard.

The toast of "The Queen" having been duly honoured,

Mr. E. GREENE, M.P., in proposing "The Farmer's Club," observed: Permit me to say how much I have enjoyed this day in looking over this beautiful country and witnessing the success of that system of agriculture in which I myself entirely believe. We have arrived at a time when we meet with high rents, high charges, and competition on all hands, but I believe the nature of Englishmen is to rise to the difficulties set before them. If we are to be successful as agriculturists we must have more than the five inches of soil on which we have depended. The hon. member proceeded to advert to the harmonious action of agriculturists of different political opinions, and having expressed his admiration of the great iron works close by, concluded by coupling the name of the chairman with the toast.

Mr. JAMES HOWARD, M.P., in the course of his reply, said: I cannot express the gratification I have felt in seeing you here to-day, and can only hope that when you return to your homes you will not look upon this day as having been misspent. Many present have in former years looked over the farms which you have seen to-day, and I believe they will agree with me that good as the crops are on my own farm they have upon the whole seen better in former years and in more genial seasons. The crops you have seen to-day are not the result of very heavy applications of artificial manure, but, as has been expressed, of deep cultivation. When I tell you that we have 629 acres, and about 600 under crop and in grass, and that the sum we have spent for artificial manure is £105, for the past year, or 3s. 6d. per acre, you will agree with me that we have not been very extravagant upon that head. Although the crops in this immediate neighbourhood look very promising, I regret we cannot rejoice together over the prospects of the British farmer for the ensuing year. With so little stock in prospect or in hand for the winter, and with a vast number of animals sold off during the drought for killing, meat, though at a high price at present, must during the ensuing year be much higher than now. When we look at the deficiency of the crop upon the light lands, on the Continent as in England, and the large importation of grain, the staff of life must be very dear; and you all know that a large importation of grain means a disturbance in the money market in this country, and whenever the money market is disturbed it means diminished employment for the people and the general depression of commerce throughout the country. The prospects of the times I believe to be gloomy indeed, but let us hope the unseen hand of a beneficent Providence will avert the dangers we see ahead. There was a time not far remote when men in this country who aspired to a knowledge of political economy treated it as a matter of indifference whether this should be a grain-producing country or not, but

time has proved the utter hollowess of such a doctrine. At the present day the importance of British agriculture and its scientific status are recognised by all intelligent men in the commercial and scientific world. It is true that now and then a sneer is hurled at the "bucolic mind," but that proceeds from ignorance or prejudice. The life of a farmer of late years, with fickle seasons, long drought, and increased taxation, has not been an enviable one. One of our poets says:

"How blest the farmer's humble lot,
How pure the joys it yields,
Far from the world's tempestuous strife,
Free 'mid the scented fields."

But however true that might have been in former years, I don't think it applies in the present day. With regard to the Farmers' Club, no one could tell how it had promoted agriculture in the past generation. He was one of those who believed that no agricultural association had done so much, in a quiet way, to promote a knowledge of the true principles of practical farming in this country as the club. He had said in a quiet way because it was no political organisation, and did not advance the interests of agriculture at the expense of other classes—its only object being to promote good agriculture throughout the counties of England, not interfering with those classes which were not mainly connected with agriculture. In looking over the papers read in years back, which he had often done, he had been surprised to find such a mass of information contained in them, which had proved useful to himself. It would be good service if those papers were revised and published. He commended that idea to some of the rising generation in agriculture.

Mr. H. CORBET gave the next toast, "Foreign Agriculture." He said that for many years past he had had the honour of attending several meetings of this kind, and he looked upon them as of special value, because they brought together men from all parts of the country, who, being more or less practical, could act as critics upon what they saw. He had the pleasure of knowing Bedfordshire for many years, and had seen with great interest every improvement which had been carried out, and he should like to invite the whole world to come there and say what they thought of Bedfordshire through the medium of this Club. As Secretary of the Club he was proud to see what the Chairman and his brother, who was a past Chairman, had been able to show to-day to the visitors, English and foreign. Throwing to the winds at once all invidiousness, foreign agriculture and English agriculture, through the medium of the railway, the telegraph, and the advanced state of science, had become more and more identified, and if there is anything to be gathered from foreign agriculture we should be the first to adopt it, while our visitors in turn might profit from something they saw here. With the toast accompanied the name of M. Laveleye, a distinguished Belgian, who had written upon the small farm system on the continent, the tenure of land, and other subjects.

M. EMILE DE LAVELEYE, who responded in French, said: Permit me to express to you my gratitude for the toast which Mr. Corbet has been kind enough to propose, not only with reference to foreign agriculture, but also in connection with its representatives amongst you this evening. I thank you, also, gentlemen, not only in my own name as a Belgian, but in the name of our brothers of Holland who are present, for the very kind manner in which you have received the toast. Allusion has been made to what I have published concerning the land systems, in which I have shown the beneficial results emanating from small estates and small cultivation (*petite culture*) in Belgium. I confess, however, that in going to-day over the farms so admirably cultivated by Messrs. James and Chas. Howard, while admiring their superb animals, the steam application, or the tillage, and perceiving such extraordinary results during a year which has been so unfavourable, I was almost on the verge of recognising the superiority of farming on a large scale (*la grande culture*) had I not called to mind that in this respect England constitutes a very remarkable but unique exception. I have studied the rural economy of agricultural systems of nearly all the continental nations, and everywhere—in Prussia, Austria, Italy, Spain, Portugal, France, and Holland—I have found large estates far less well cultivated and less taken care of than small estates. If it is otherwise in England, the difference arises from the fact that there exists in this country a class of men who are wanted elsewhere, that

you have farmers who devote themselves to cultivation, that you are a nation of capital, and possess an intelligence, perseverance, and practical genius which are truly worthy of admiration. I have always recognised the services which the large farming of England has rendered to the world at large, not only by creating improved breeds, but by producing agricultural implements of great excellence. On this head I would principally set forward the gratitude which is due to a man who, like Mr. Howard, has been instrumental to so remarkable a degree in promoting the progress of mechanical science in its application to agriculture. Everywhere I have been—not only in Belgium and Holland, but in Hungary, Italy, Spain, and Portugal—I have found agricultural implements which were sent out from the ironworks which now surround us. The benefits resulting therefrom are incalculable. The marvellous improvement of farming implements represents hundreds of thousands. Supposing it allows only the production of a half hectolitre more per acre, multiply that by the number of acres under cultivation, and you will realize an enormous amount. It is for this reason, gentlemen, one can say that men who apply their inventive genius, as Mr. Howard has done, to the promotion of agriculture, are in truth benefactors of humanity. By exerting themselves to lower the price of bread they contribute to the riches and wellbeing of nations and individuals. One can the more vividly feel the gratitude we owe to those who thus labour for the economic development of peoples when, perhaps, we are on the eve of seeing the evil genius of war set loose to destroy those riches which agriculture and industry conspire to produce. In conclusion, therefore, I give you the toast of the "Agriculture of England and the Messrs. Howard," as a mark of grateful acknowledgment for the incalculable services which they have rendered to the agriculture of the Continent.

Mr. O. WALLIS proposed "Success to the Royal Society's Meeting at Oxford," responded to by Captain Dashwood, who gave "The Father of the Firm," Mr. Howard, senior.

Mr. Alderman HOWARD replied in a very effective and humorous speech.

Mr. HOPE proposed "The House of Commons," coupled with the name of Mr. C. S. Read, M.P., in whose hands, he remarked, such questions as the game-laws and the malt-tax might be left.

Mr. C. S. READ, M.P., in responding, adverted to some valuable hints which had been given at the late Norfolk show by Mr. C. Howard to the farmers of the county, and spoke strongly on the advantages of steam cultivation. He proposed the health of Mr. C. Howard in connexion with Bedfordshire farming.

Mr. C. HOWARD, in the course of his reply, referred to the remarks he had recently made at Norfolk and justified them, warning agriculturists that no man was so unsafe as he who considered himself safe, and humourously describing some of the implements he had seen in that county as curiosities which might have come from Noah's ark. He condemned the Game Preservation and Poaching Bill as a class legislation, and said 99 out of every 100 farmers in the country were opposed to it.

Mr. E. GREENE, M.P., supported the Bill in the interests of the farmer. The power given to policemen operated for the suppression of poaching, and in a parish of Suffolk in which he resided there had not been a conviction for poaching during the last twelve months. If a man had no right to take game that game must be preserved. The hon. member concluded by proposing "Success to the Britannia Works."

The CHAIRMAN responded, and said he differed from Mr. E. Greene on the Game Poaching Bill, and hoped to see the day when there would be a clean sweep of the Game Laws and game placed on the same footing as other property.

Mr. TRETWEY proposed the health of the Secretary, Mr. Corbet, in complimentary terms, and took occasion to offer a few remarks as to the beneficial influence exercised on agriculture by the Club.

Mr. CORBET, in responding, said, with regard to the question between Bedfordshire and Norfolk, there was a gentleman present who felt that it had not been argued out, and with the permission of the chairman, he would give the health of Mr. Leeds, of Castle Acre, one of the past chairmen of the Club.

Mr. LEEDS, in responding, observed that Mr. Chas. Howard had not visited Norfolk in reality, for the show had been held in a yard which was actually in Suffolk. In no county did the

landlord do more to benefit their tenants than in his own, and the nobleman under which he lived had compelled all his tenants to cut down all the vermin, beginning with rabbits. Even though the Prince of Wales shot over the estate, the tenants of that nobleman were allowed to shoot hares and rabbits. He trusted the show would be held near his own place next year, and he should be happy to receive those of his audience who might attend it.

The CHAIRMAN remarked that the development of agriculture in Norfolk or Bedfordshire was due to the exertions of the late Earl of Leicester and the Duke of Bedford.

The other toasts were, "The Past Chairmen," proposed by Mr. Scott, and responded to by Mr. James Wood; the health of Mr. Nutter, who had given the use of his grounds, proposed by Mr. C. Howard; and the health of Mrs. James Howard, proposed by Capt. Delf.

SELBY AGRICULTURAL SHOW.

The annual show of stock and implements of the agricultural society established for Selby and the district took place under very favourable circumstances. The day was fine, and there was a numerous attendance of company.

The cattle generally were a magnificent lot of animals, particularly the bulls of any age, eight in number. They had to contend for Lord Londesborough's £10 prize, and Mr. Linton, of Sheriff Hutton, was the conqueror with his white bull, Lord Irwin. The bulls not exceeding three years old were good. W. T. Markham, of Becca Hall, Aberford, secured first honours, and Lord Londesborough took the second prize.

The display of horses was in every respect first-rate, and fully equal to all anticipation.

The following gentlemen officiated as the judges:

SHORTHORNS, SHEEP, AND PIGS.—George Smart, Laxton, Tadcaster; George Mann, Scawsby, Doncaster; and Thomas Willis, Capersby, Wensleydale.

HORSES.—Henry Jewison, Raisthorpe, Malton, and Thomas Colton, Eagle Hall, Newark.

PRIZE LIST.

SHORTHORNED CATTLE.

Best bull of any age.—Prize, £10 (given by Lord Londesborough), Wm. Linton, Sheriff Hutton Park.

Bull not exceeding three years of age.—First prize, £10, W. T. Markham, Becca Hall, Aberford; second of £3, Lord Londesborough.

Bull not exceeding 18 months old.—First prize, £5, C. T. Tunnard, Thorganby Hall; second of £2, A. Hathorn, Birkin.

Cow of any age, in calf or milk.—First prize, £5, W. Linton; second of £2, J. Hutchinson, Selby.

Cow, in calf or milk, not exceeding four years of age.—First prize, £3, C. M. Weddall, West Bank, Carlton; second of £2, J. Pearson, Cleek, Selby.

Heifer not exceeding three years of age.—First prize, £2, Lord Londesborough; second of £1, H. Hutchinson, Flaxley Lodge.

Heifer not exceeding two years of age.—First prize, £2, W. Linton; second of £1, Lord Londesborough.

CATTLE OF ANY BREED.

Cow for dairy purposes.—First prize, £3, W. Briggs, Hirst Courtney, Selby; second of £2, W. and R. Jewitt, Brackenholve.

Cow for dairy purposes, the property of a labourer.—First prize, £3, G. Tomlinson, Selby; second of £2, M. Brady, Selby.

LONG-WOOLLED SHEEP.

Shearling ram.—First prize, £5, E. Riley, Kipling Cote Farm, Beverley; second of £2, Jno. J. Simpson, Pilmoor House.

Aged ram.—First prize, £3, and second of £1, E. Riley.

Pen of five breeding ewes.—First prize, £3, J. Ris'worth, Lotherton Park, South Millford; second of £1, W. Brown, Higgate, Holme-on-Spalding-Moor.

Pen of five shearling gimmers.—First prize, £5, W. Brown; second of £2, E. Riley.

Pen of five shearling wethers.—First prize, £5, W. Brown; second of £2, Riley Briggs, Osgodby Hall, Selby.

Pen of gimmer lambs.—First prize, £2, J. Banks, Wressle, Howden; second of £1, J. Smith, Brayton.

Pen of wether lambs.—First prize, £2, Jas. Banks; second of £1, S. Ris'worth, Cold Hill, South Millford.

PIGS.

Boar, large breed.—First prize, £2, Wilson Lister, Arnley, Leeds; second of £1, G. Sedgwick, York.

Boar, middle breed.—First prize, £2, Wilson Lister; second of £1, G. Sedgwick.

Sow, large breed, in pig or milk.—First prize, £2, G. Chapman, Scamer; second of £1, T. Renison, Scaife, Market Weighton.

Sow, in pig or milk, of the middle breed.—First prize, £2, G. Chapman; second of £1, T. Renison.

Three store pigs, not more than twelve months old.—First prize, £2, C. Hutchinson and Jos. Vollans, Selby; second of £1, J. Banks, Stainer Hall, Selby.

Labourer's store pig.—First prize, £2, J. Houfe, North Duffield; second of £1, R. Bradley.

HORSES.

Hunter of any age.—Prize, £10, J. Robson, Old Holme.

Four year old hunter.—First prize, £10, J. Reader, Holme; second of £3, R. Metcalf, Malton.

Roadster nag or mare of any age.—First prize, £10, J. Robson, Old Malton; second of £3, F. Mason, Malton Road, York.

Pair of horses, of either sex, for agricultural purposes.—First prize, £5, and second of £2, Thompson, Skipwith.

Brood mare, for breeding weight-carrying hunters.—First prize, £5, J. Richardson, Selby; second of £2, G. C. Smith, Esrick Grange.

Brood mare, for breeding coaches.—First prize, £3, J. Reader, Holme; second of £1, H. Thompson, Whitmore.

Brood mare, for breeding roadsters.—First prize, £3, J. Wild, Holme-on-Spalding-Moor; second of £1, Riley Briggs, Osgodby Hall.

Brood mare, for breeding agricultural horses.—First prize, £3, T. Makin, Fairburn; second of £1, J. and T. Appleyard, Wistow, Selby.

Three year old hunting gelding.—First prize, £3, R. R. Blanshard, Aughton, York; second of £1, J. Burton, Selby.

Three year old hunting filly.—First prize, £2, J. Burton, Hill Field, Selby; second of £1, W. Taylor, Ryther.

Two year old hunting gelding or filly.—First prize, £3, J. Denison, Sherburn; second of £1, J. Foster, Wistow.

Three year old coaching gelding.—First prize, £3, H. Thompson, Whitmore; second of £1, W. Beckett, Deighton.

Two year old coaching gelding or filly.—First prize, £3, E. Appleyard, Wistow; second of £1, G. and J. Swinbank, Riccall.

Three year old roadster gelding or filly.—First prize, £3, T. Dales, Kearby, Wetherby; second of £1, W. Thompson, Skipwith.

Two year old roadster gelding or filly.—First prize, £2, W. Prince, Chapel Haddlesley.

Pony, not exceeding 14 hands, of any age.—First prize, £3, J. M. Backhouse, Wistow; second of £1, W. White, Arnthorpe, Doncaster.

Pony, not exceeding 12 hands, of any age.—First prize, £3, W. White; second of £1, H. Robinson, Camblesforth.

Three year old agricultural gelding.—First prize, £3, J. Watson, Barlow Grange, Selby; second of £1, G. Braithwaite.

Three year old agricultural filly.—First prize, £3, J. Wood; second of £1, W. Banks, Babthorpe.

Two year old agricultural gelding or filly.—First prize, £2, J. Ringrose, Hillam; second of £1, J. Smith, Brayton, Selby.

BANFFSHIRE CATTLE SHOW.

The series of cattle shows in the North opened on July 12, with the show in connection with the United Banffshire Agricultural Society. The show was the largest and in every respect the most successful ever held under the auspices of the Society. The Shorthorns were forward in large numbers, and comprised some very superior animals, though generally perhaps the quality was not so equal as in the polled. The majority of the cattle were not of the colour which experienced breeders prefer in Shorthorned stock, that is dark red or roan; the prevailing colour seemed to be light red and red-and-white intermixed in such a manner that it could hardly be called roan. The polled stock were very superior as a class, and seemed to be the most attractive to the visitors. Only two aged bulls were brought forward, but these would have done credit to any show yard, and were so evenly matched that it was not the easiest of matters to decide which had the prior claims. There was also a large and creditable turn-out of crosses, many of them very meritorious animals.

JUDGES: CATTLE, William Wallace, Chapel of Seggat; Thos. Garland, Ardlethen; James Cochrane, Little Haddo.—HORSES, SHEEP, AND SWINE: John Sleight, Strichen Mains; Thomas Turnbull, Smithstown; A. K. Leitch, Inchstelly.

CATTLE.

SHORTHORN BREED.

Bulls not exceeding eight years old.—First prize, Mr. Bruce, Burnside; second, Mr. Adam, Seafeld; third, J. Pirie, Newton, Culvie.

Bulls calved after 1st January, 1868.—First prize, Mr. Longmore, Rettie; second, Mr. Scott, Glendronach; third, Mr. Cantlie, Keithmore; fourth, Mr. Bruce, Broadland.

Bulls calved after 1st January, 1869.—First prize, Mr. Longmore, Rettie; second, Mr. Bruce, Broadland; third, the Earl of Seafeld.

Highland Society's Medium Silver Medal for the best bull.—Mr. Bruce, Burnside.

Cows of any age.—First prize, Mr. Scott, Glendronach; second and third, Mr. Longmore, Rettie; fourth, Mr. Turner, Arradoul.

Sir G. S. Abercromby's Silver Challenge Cup for the best cow.—Mr. Longmore, Rettie.

Heifers calved after 1st January, 1868.—First and second prize, Mr. Bruce, Broadland; third, Mr. Longmore, Rettie.

Heifers calved after 1st January, 1869.—First and second prizes, Mr. Bruce, Broadland; third, Mr. Longmore, Rettie.

Highland Society's Silver Medal for the best heifer.—Mr. Bruce, Broadland (yearling heifer).

POLLED BREED.

Bulls not exceeding eight years old.—First prize, Mr. Tayler, Glenbarry; second, Mr. Gordon, Tullochallum.

Bulls calved after 1st January, 1868.—Mr. Walker, Mountbleton.

Bulls calved after 1st January, 1869.—First prize, Mr. Paterson, Mulben; second, Mr. Bruce, Burnside.

Cow of any age.—First prize, Mr. Skinner, Drummin; second, Mr. Paterson, Mulben; third, Mr. Tayler, Glenbarry.

The Earl of Fife's Silver Challenge Cup for the best cow.—Mr. Walker, Mountbleton.

Heifers calved after 1st January, 1868.—First prize, Mr. Paterson, Mulben; second and third, Mr. Walker, Mountbleton.

Heifers calved after 1st January, 1869.—First prize, Mr. Skinner, Drummin; second, Mr. Paterson, Mulben; third, Mr. Duff, Hillcock-head.

CROSS BREED.

Cows of any age.—First prize, Mr. Turner, Arradoul; second, Mr. Longmore, Baldavie; third, Mr. Milne, Corse of Kinnair.

Pairs of cows of any age.—First prize, Mr. A. Wilson, jun., Tochieneal; second, Mr. Longmore, Baldavie; third, Mr. Ogilvie, Tillynaught.

Heifers calved after 1st January, 1868.—First prize, Mr. Shand, Ordens; second, Mr. Rust, Paddocklaw; third, Mr. Smith, Thriepland.

Pairs of heifers calved after 1st January, 1868.—First prize, A. Wilson, jun., Tochieneal; second, Mr. Smith, Thriepland.

Heifers calved after 1st January, 1869.—First prize, Mr. Findlater, Crama; second, Mr. Ogilvie, Tillynaught; third, Mr. Shand, Ordens.

Pairs of heifers calved after 1st January, 1869.—First prize, Mr. Shand, Ordens; second, A. Wilson, jun., Tochieneal; third, Mr. Shand, Ordens.

ANY BREED.

Oxen calved after 1st January, 1868.—First prize, Mr. Scott, Glendronach; second, Mr. Bruce, Broadland; third, Mr. Longmore, Hilton.

Pair of oxen calved after 1st January, 1868.—First prize, Mr. Scott, Glendronach; second, Mr. Longmore, Hilton; third, Mr. Longmore, Baldavie.

Oxen calved after 1st January, 1869.—First prize, Mr. Shand, Ordens; second, Mr. Ogilvie, Tillynaught; third, Mr. Murray, Pittendreich.

Pairs of oxen calved after 1st January, 1869.—First prize, Mr. Ogilvie, Tillynaught; second, Mr. Smith, Thriepland; third, Mr. Shand, Ordens.

Animals showing most symmetry, fat, and weight.—First prize, Mr. Scott, Glendronach; second, Mr. Shand, Ordens.

Cattle belonging to Tenants whose Rents are under £50.

Dairy cows of any age.—First prize, Mrs. Murray, Burnervie, Marnoch; second, Wm. Lauder, Nethermills; third, James Riddoch, Gledsgree.

EXTRA STOCK.

Cross cows.—Mr. Turner, Arradoul.
Cow and calf.—First and second prize, A. Wilson, jun., Tochieneal.

HORSES

Draught stallions having had produce during the year 1869.—Mr. Tait, Brankanentham.

Draught entire colts foaled after 1st January, 1868.—First prize, Mr. Tait, Brankanentham; second, Mr. Mackie, Cummerton.

Draught mares without foals.—First prize, Major Gordon, Park; second, Mr. Murray, Faichfolds; third, Mr. Wilson, Kilmillook.

Mares for breeding draught horses, having foals at foot.—First prize, Mr. Longmore, Rettie; second, Mr. Leslie, Corskellie; third, Mr. Walker, Mountbleton.

Draught horses.—First prize, A. Wilson, jun., Tochieneal; second, Mr. Scott, Glendronach; third, J. Morrison, Loanhead.

Draught fillies, foaled after 1st January, 1867.—Mr. Smith, Thriepland.

Draught fillies, foaled after 1st January, 1868.—Mr. Walker, Mountbleton.

Draught geldings, foaled after 1st January, 1868.—First prize, Major Gordon, Park; second, Mr. Walker, Mountbleton.

Draught fillies, foaled after 1st January, 1869.—First and second prizes, Mr. Walker, Mountbleton; third, Mr. Longmore, Hilton.

Draught geldings, foaled after 1st January, 1869.—First prize, Mr. Longmore, Baldavie; second, Mr. Longmore, Hilton; third, Mr. Morrison, Loanhead.

Extra Stock.—First prize, Mr. Longmore, Baldavie; second, Mr. Ogilvie, Bankhead; third, Mr. Longmore, Hilton.

PIGS.

Sows.—First prize, Mr. Ogilvie, Bankhead; second, G. Bilenoch, Carnoch.

SHEEP.

LIVESTOCK BREED.

Tups of any age.—First prize, Mr. Hannay, Corskie Bank; second, Mr. Bruce, Burnside; third, Mr. Leslie, Corskellie.

Shearling tups.—First prize, Mr. Bruce, Burnside second and third, Mr. Hannay, Corskie Bank.

Pens of five ewes, not less than two-shear, having had lamb, during the season.—First prize, Mr. Hannay, Corskie Bank; second, Mr. Longmore, Rettie.

Pens of five gimmers or shearling ewes.—First prize, Mr. Bruce, Burnside; second, Mr. Hannay, Corskie Bank; third, Mr. Longmore, Rettie.

ANY OTHER BREED.

Six ewes having had lambs during the season.—Mr. Longmore, Rettie (Leicester ewe).

Six shearling gimmers.—Mr. Smith, Threipland.

The dinner took place in a marquee erected on the grounds, and the chair was taken by W. J. Taylor, of Glenbarry.

After the usual loyal and other toasts, in giving the toast of the evening the CHAIRMAN said: I am now about to propose "The United Banffshire Society, and continued success to it." I say continued success to it, because from the statistics that were read to you by the Earl of Fife, when proposing this toast last year, there can be no doubt of its success hitherto. I find that the entries of this day exceed, by a great number, those of any former year. Last year we thought we were very well off, but we had then only 275 entries, as against 344 this year. Therefore, I think I am fully justified in saying that we are going on prosperously. And, as the numbers of the stock have increased, I am quite sure everyone will agree with me that the quality has not, at all events, fallen off. I find my friends the black polled, as usual, in the minority in point of numbers; we are overcrowded by these great Shorthorns which are now pervading the country, so that we seldom see a black beast. However, I shall always adhere to the creed that however good the Shorthorns may be, we should always keep up the black breed for the purpose of crossing, and I am sure my friend, Mr. Paterson, will agree with that sentiment. There can be no doubt as to the great advantage of such meetings as the present, and of such societies as that to the prosperity of which we are now drinking. Breeders who remain at home, and seldom see any stock but their own, are apt to get conceited about their beasts, and they will never get out of that conceit until they come to such an exhibition as the present, and get the shine taken out of them. Then they see that it is necessary to go home and try to improve their stock. I say, therefore, to the Banffshire,

and to all similar societies, "Go on and prosper." Afterwards in giving "The Tenantry of Scotland" he said: It is to them, gentlemen, and to their exertions, that it is mainly owing that Scotland, instead of being as formerly, in the words of our poet, "Land of brown heath and slaggy wood," and one of the poorest countries in the world, is now, notwithstanding its rigorous climate, famed for its agriculture, and for the abundant product of the soil. The relations of landlord and tenant, founded on equitable contract, strictly adhered to, are productive of mutual benefit and of kindly feeling between the classes—a happy contrast to the state of things which unhappily prevails in parts of the sister country of Ireland, where it has been found necessary to introduce the legislative measure now before Parliament, in order to enforce justice between landlord and tenant. This has been done at the expense of what I consider a great violation of the principles of political economy, and of the grand principle of free contract between man and man, which, I trust, will always be maintained in its entirety in Scotland.

Mr. SCOTT, Glendronach, proposed "The landed proprietors of the county." The chairman had said that a great deal had been done by the tenantry in improving "the land of brown heath and slaggy wood;" but they all knew that the tenants' influence on many occasions would have been futile unless they were supported by wise and judicious landlords. He was happy to think that a great number of our landed proprietors could be included in that category. He was very sorry that so few came to see their shows, which had now become great institutions. He believed, and he was sure he would be borne out by the agriculturists around the table, that if it had not been for their cattle shows, and the improvement in breeding, the rent-roll of the landlords would not have stood so high as they did. He trusted that the landlords would perform the duties devolving on them, and that they would profit by experience and come amongst them more than they had hitherto done, when they would find that their tenants were not so bad fellows to meet with.

Mr. CANTLIE proposed the health of the Chairman. As a landlord himself, and as commissioner for a vast landed property in this county, he was well known and respected; and his conduct in all business matters, his upright and straightforward conduct never failed to call forth the greatest admiration.

The CHAIRMAN returned thanks. "Good Night" was then given by the Chairman, and the company separated.

NEWTON-ON-DERWENT AND DISTRICT AGRICULTURAL SOCIETY.

This society held its sixteenth annual show at Dunnington, four and a-half miles from York.

Especially deserving of favourable notice were the bulls of any age and the bulls under twelve months old. The cow classes, too, were equally good, the cows of any age in-calf or milk, and the heifers under three years old being a prime lot of beasts, and very much admired.

In wool and mutton, no less than in form, the sheep classes were irreproachable.

The pigs were equally good; the boars of any breed and the sows or gilts for breeding purposes being fully up to the mark for display at an agricultural show.

The judges were: For cattle, pigs, and sheep—H. Peacock, Mount Vale, York, and J. Kirby, Skirpenbeck. For horses—T. Bowman, Croom, Sledmere, and R. Robson, Deighton.

PRIZE LIST.

SHORTHORNED CATTLE.

Best bull of any age.—First prize, G. Harrison, Newton-on-Derwent; second, T. Harrison, Dunnington.

Best bull under twelve months.—Prize, J. Stephenson, Wheldrake.

Cow, of any age, in-calf or milk.—First and second prizes, J. Stephenson.

Cow, of any age, in-calf or milk, for dairy purposes.—First prize, J. Stephenson; second, Julia Hart, Dunnington Lodge.

Heifer, under three years old, in-calf or milk.—First prize, R. Roundlwaite, Buttercrambe; second, J. Stephenson.

Heifer calf, under one year old.—First and second prizes, J. Stephenson.

SHEEP.

Ram, of any age.—First prize, G. Harrison; second, W. White, Full Sutton.

Pen of five ewes, that have suckled lambs to the 1st July.—First prize, G. Harrison; second, J. Stephenson.

Pen of five shearling gimmers.—First prize, J. Kirby, Skirpenbeck; second, Thomas Etty, Sutton-on-Derwent.

Pen of five gimmer lambs.—First prize, G. Harrison; second, J. Stephenson.

HORSES.

Nag of any age, to be ridden in the presence of the judges.—First prize, F. Mason, Calm Farm, Malton-road; second, H. R. W. Hart, Dunnington Lodge; third, H. Dudding, Haxby.

Three-year-old nag gelding or filly.—First prize, H. R. W. Hart; second, Mr. Watson, Grimston.

Two-year-old nag gelding or filly.—First prize, J. Stephenson; second, T. Harrison.

Yearling nag gelding or filly.—First prize, J. Penrose, Newton-on-Derwent; second, J. Snowball, Stockton.

Nag foal.—First prize, W. Willsthorpe, Appleton; second, G. Dickson, Heslington.

Coaching mare and foal.—First and second prizes, J. Stephenson.

Three-year-old coaching gelding or filly.—First prize, W. Becket, Deighton; second, J. Kirby, Burton Fields.

Two-year-old coaching gelding or filly.—First prize, W. Wharram, Skirpenbeck; second, Mr. Newton, Sutton-on-Derwent.

Yearling coaching gelding or filly.—First prize, R. Staveley, Scrayingham; second, T. Saltmarsh, Stamford Bridge.

Horse or mare for agricultural purposes.—First prize, E. Jewitt, West Cottingworth; second, J. Long, Skipwith.

Two-year-old agricultural gelding or filly.—First prize, T. Braithwaite, Newton-on-Derwent; second, T. Palfreman, Kexby.

Foal, colt or filly, for agricultural purposes.—First prize, J. Butler, Malton-road; second, W. J. Ware, Skirpenbeck.

Foal, by any roadster horse.—First prize, G. Dickson, Heslington; second, T. Harrison.

Foal, by any coach horse.—First prize, J. Kirby, Burton Fields; second, T. Harrison.

Colt or filly foal by "Elvington Wildfire."—First prize, G. Barker, Elvington; second, T. Ety, Sutton-on-Derwent.

Colt or filly foal by "Bucephalus."—First prize, W. Dewar, Groves, York; second, J. Watson, Grimston.

Sweepstakes of 5s. each, for best three-year-old hunting gelding.—Prize, J. Kirby, Skirpenbeck.

Sweepstakes of 5s. each, for the best pony under 14 hands.—First prize, J. Wood, Newton-on-Derwent; second, J. Williamson, Elvington; third, J. Hatfield, Oshaldwick.

PIGS.

Boar, of any breed.—First and second prizes, J. Sedgewick, The Grove, York.

Sow or gilt, of any breed, for breeding purposes.—First prize, T. Nicholson, Lawrence-street, York; second, R. Taylor, Holby.

Cottagers' pig.—First prize, J. Tesseyman, Dunnington; second, T. Porteus, Murton; third, M. Shepherd, Dunnington.

SALE OF MR. MEADOWS' SHORTHORNS AT THORNVILLE, WEXFORD, IRELAND,

ON THURSDAY, JUNE 30.—BY MR. JOHN THORNTON.

This "small but distinguished herd," which has been of gradual growth since 1830, was comprised chiefly of tribes that had a good local celebrity. The fine grazing district in the Barony Forth, in the county of Wexford, is much indebted to Mr. S. Armstrong, of Enniscorthy, who introduced Shorthorns from Cumberland some five-and twenty years ago. Mr. Bolton, of the Island, has also a good stock, with two bulls of Mr. Booth's in service, while Mr. Meadows started first with the Fanny tribe from Mr. Conolly. Many animals had been bred from this line, and Fanny 30th was the last in the catalogue. It is only of short descent, going back to the bull Duke (3633), but the sort have been remarkable for their sweet heads and thoroughbred looks, all duly appreciated in the Wexford showyard, where they won a number of prizes. The Bloom or Blossom tribe was got from Mr. Armstrong, and traced back to No. 22 at the Chilton Sale. This was by far the best family. In 1867 Mr. Meadows bred Bolivar (25649) from this tribe, exhibited him in Dublin, and sent him to England, where he was quite the best yearling at the Royal at Leicester in 1868. He was sold there to Mr. Brierley, who now backed up the family, and purchased his own sister Bloom (lot 10) for 50 gs.; but she was thin and low in condition from recent calving, and milking heavily too. Her calf, a very good one, made 51 gs., and went to Mr. Bolton; whilst his half-sister, Bloom of the May, a heifer in good condition, exceedingly stylish, and symmetrical, fetched 90 gs. for Australia. Chansonette, a fine, large cow, and a prize winner, went to Mr. Maxwell Gumbleton, County Cork, for 64 gs., and her heifer, Chaumontel, the first prize yearling at the Dublin Spring Show, was kept in the county by Mr. Bolton for 63 gs. Polly Hopkins, the highly commended heifer at Dublin, went cheap enough to Mr. Gumbleton for 42 gs. Mr. Meadows also sent over to this country the bull Charlie (25745) who won several premiums, but his line of blood was not greatly appreciated, his dam, low in condition, fetching only 41 gs., and his half-sister, a yearling heifer, 20 gs. Prince of the Realm, purchased from Mr. Carr, in use for the last two years, was bought to go to Mr. J. How, in England, for 70 gs. A very large company assembled, and Mr. Meadows entertained a great number in the house. The auctioneer, in opening the sale, remarked on the success that had attended Mr. Meadows in his endeavours to compete in England for prizes, which

was received with cheers, and the sale all through was of a most lively and animated description. Many of the cows being heavy milkers were low in condition, and Mr. Meadows reserved two at 30 gs. The calves were also a little thin, but the heifers were remarkably good, and brought out excellently under Tom Quin, the well-known herdsman. Subjoined are the prices;

COWS AND HEIFERS.

- Chemisette (has bred nine calves).—R. J. Devereux, M.P. 20 gs.
- Fanny 7th (has bred ten calves).—W. M. Gibbon, 26 gs.
- Fanny 9th (has bred six calves).—W. J. Bryan, 31 gs.
- Primrose 4th (has bred four calves).—W. J. Boxwell, 21 gs.
- Polly Fortune (has bred four calves).—W. J. Bryan, 30 gs.
- Fanny 14th (has bred four calves).—Reserved.
- Chintz (has bred four calves).—J. King, 41 gs.
- Amelia (has bred three calves).—Reserved.
- Chansonette (has bred two calves).—Mr. Gumbleton, Cork, 64 gs.
- Bloom (has bred two calves).—C. W. Brierley, Manchester 50 gs.
- Primrose 6th.—W. J. Bryan, 28 gs.
- Fanny 23rd.—Earl Fitzwilliam, 36 gs.
- Fanny 24th.—A. Keating, 24 gs.
- Fanny 25th.—W. J. Bryan, 55 gs.
- Chenille.—C. Furney, 23 gs.
- Aelaide.—S. Armstrong, Enniscorthy, 22 gs.
- Fanny 26th.—F. Boxwell, 26 gs.
- Bloom of the May.—Fait, for Australia, 90 gs.
- Cumbric.—W. A. Caulfield, 20 gs.
- Chaumontel.—W. Bolton, The Island, 63 gs.
- Polly Hopkins.—M. Gumbleton, 42 gs.
- Fanny 27th.—C. Furney, 15 gs.
- Bloom of the Heather.—W. Bolton, 51 gs.
- Cashmere.—J. Thomas, 13 gs.
- Primrose 8th.—A. Cannon, 18 gs.
- Fanny 30th.—W. T. Taylor, 10 gs.
- Chèvre Fenille.—M. Gumbleton, 13 gs.

BULLS.

- Prince of the Realm (22627).—J. How, Broughton, 70 gs.
- Fitz-Charles.—R. Devereux, M.P., 30 gs.
- Charlemagne.—W. J. Bryan, 20 gs.

SUMMARY.

	£	s.	d.
25 Cows	873	12	0
3 Bulls	126	0	0
Total	£999	12	0

28 head averaged 435 14s.

SALE OF MR. D. R. DAVIES' HERD,

MERE OLD HALL, KNUTSFORD, CHESHIRE,

WEDNESDAY, JULY 13, 1870.—BY MR. STRAFFORD.

Manchester seemed to be the head-quarters overnight for the Shorthorn fraternity, who were bound for Mere Old Hall, to see the sale, not so much of Mr. Davies' herd as the sale of old Moss Rose, her daughter, and the Cleopatras. The "Queen" coffee-room was as full of the Shorthorn *elite* as a commercial-room could be of business men. Mr. Drewy (Duke of Devonshire), Mr. Lency, Mr. Tracy, Mr. Merton, and Mr. Trafford, had preceded Mr. Oliver, Mr. Foster, Mr. Larking, Mr. Rand (Lord Braybrooke), Mr. Lynn, Mr. Thornton, and the Australian contingent, Mr. White and Mr. Langdale; and there was the felt but unspoken suspicion that everyone was bound upon the same purpose. It was, however, reported that Mr. Cochrane, in company with his clever assistant, Simon Beattie, had been there and gone down overnight, after having been to Wetherby and Warlaby, making some extraordinary purchases, so that all chances of a bargain seemed gone. The old cow was freely put to make two to three hundred, and the heifer at least five; but the company had not reckoned upon the Squire of Gaddesby, who was not down overnight either in person or by deputy, in Mr. Bland.

A few slight showers only refreshed the hot, bright morning, and cheered the hearts of the burnt-up south countrymen. The cattle were conveniently placed in a large field, where the ring was pitched, and some pens secured the sheep and pigs, upon which Messrs. Clarke and Lythall operated afterwards.

By noon there was a large and thoroughly Shorthorn company, among them being Mr. Cochrane and Beattie; Mr. Gibson, on the part of Messrs. Walcott and Campbell; Mr. Downing, Mr. Slye, Mr. Knowles (Capt. Gunter), Mr. Slatter (Lord Derby), Mr. Roper (Lord Skelmersdale), Mr. Pumehard (Lord Kenlis), Mr. Bland (E. I. Cheney, Esq.), Mr. Culshaw. (Col. Towneley), Mr. Lowndes, Mr. Atherton, Mr. Tunnilliffe, Mr. Baxter, Mr. Fawcett, Rev. P. Graham.

Old Moss Rose and Wellingtonia grazed near the gate, as if they knew the object of the company; Cleopatra 5th, being in season, was kept in the house, and the rest grazed in the field. The white Moss Rose 2nd was a little difficult to find among many white ones, as her splendid pedigree was not fully borne out in her appearance. A white Cleopatra was once or twice mistaken for her; but when found, Moss Rose 2nd's appearance was keenly scanned, inasmuch as a little doubt prevailed as to her productiveness. She had a tumour when a yearling, and had been served by Twelfth Duke of Thorn-dale, but not holding to him she had been sent to Wetherby, and served Jan. 12, by Third Duke of Wharf-dale. It was also said that, in the event of her not breeding, Mr. Davies would meet the case. The other animals, save a pretty roan heifer from Candidate's Duchess, were not particularly admired, and the two by the Twelfth Duke of Thorn-dale were deemed weedy and delicate. The bulls in the houses were considered, and some went even so far as to say they would have made inferior steers; still just before lunch they were paraded in a ring and showed to more advantage.

A very elegant luncheon was served, with Mr. Tatton in the chair, who proposed her Majesty's health, and also Mr. Davies', whose popularity and zealous efforts in bringing out another herd, after thirty-six—the whole

herd save four—had been lost in the plague, were one general theme of discourse.

The ring was pitched a long distance from the sheds, and a spacious raised stand erected behind the auctioneer. During his preliminary observations and the reading of the conditions of sale, Old Moss Rose, looking as young and as fresh as at Preston Hall, paraded the ring for the fifth time, and seemed, with her head up and gay carriage, to be as well aware as she was proud of it. The history of this remarkable cow is as follows: Bred by Mr. Harvey Combe, she was sold as a calf, and a great beauty too, at Cobham Park sale, 1857, for 260gs. to Mr. Hales, who resold her to Mr. Betts for 245gs. in 1862, her bull-calf Marmion selling for 155gs. to Mr. D. R. Davies. At the Preston Hall sale she was bought by Mr. Davies for 230gs., and her calf Moss Rose 2nd by Mr. Foster for 160gs. It was agreed, however, they should toss for choice; and Mr. Foster took Moss Rose, Mr. Davies buying her at his sale for 400gs. There was much elegance and fine character about her—a sweet head, with long, tapering horns, fitted well on to her neat shoulders. Age had made her lumpy behind; but her lovely roan and thoroughbred stylish look at once commended her even to the sceptical. Mr. Drewry bid a hundred for her, and Mr. Foster fifty more. Mr. Lency came in at 200gs., and then followed quiet bids behind the rostrum up to 350gs., when Mr. Elt Cheney, of Gaddesby, was announced the buyer. She has thus realised 1,485gs. at various times.

Cleopatra 8th, a fine, large, deep roan cow of beautiful quality, and a 130 gs. purchase at Ilolker, was re-purchased by Mr. Drewry at 80 gs. Harmony, a short-legged, long-bodied cow, went cheap enough and in-calf to Mr. Ilomer. Wellingham, a 120 gs. purchase at Ilavinger, kept up her good looks, and fell to Mr. Slye, after some opposition from Mr. Thornton, for 40 gs. over cost price. Mr. Thornton, however, got the next at 41 gs., and she was a 90 gs. purchase of Mr. Logan, who won the first prize at the Plymouth Royal with her. In symmetry, colour, and fine quality she was unequalled, and seemed a cheap in-calf investment. Candidate's Duchess, by Capt. Gunter's Duke of Wharfdale, was not in a breeding state. Cleopatra 9th, coughing, but a nice-coloured stylish cow, was re-purchased by Mr. Downey for Mr. Harward at 65 gs. Then came some quite second-rate animals until lot 12, a Bracelet, a 40 gs. lot at Mr. Wythes in 1867. Although a deep, short-legged, fine-coloured cow, she had a low loin, supported with good round ribs. Mr. Drewry, after opposition from Mr. Thornton, secured her at 70 gs., and her sister, not so good but in-calf, at 45 gs. Then came in Moss Rose 2nd, a sweet-headed, long-quartered, stylish-looking heifer—200 gs. was the first bid. Mr. Beattie for Mr. Cochrane bid 400 gs., and Mr. Oliver got in at 450. Then followed a succession of bids from the stand up to 700 gs., when Mr. Oliver was in again: "ten," said Mr. Beattie, and then arose a clapping of hands and slight cheers; "twenty," from Mr. Bland; "thirty," shouted out Beattie; "five," said Mr. Oliver; and "fifty," came Mr. Bland; "eighty," said Mr. Oliver; "eight hundred;" "the glass runs." "Who's the buyer?" Mr. Cheney; and a good cheer and much murmuring talk and surprise arose on this extraordinary animal,

which is by far the dearest sold this year. The succession of inferior animals fetched inferior prices, and Mr. Thornton for Mr. James had quite a single guinea run with Mr. Homer for Cleopatra 12th. The 13th, put up at 50 gs., was a fair, deep-fleshed heifer, and Mr. Foster got her at 62 gs. Candidate's Duchess 2nd, by Grand Duke of Essex 4th, out of lot 6, was by far the prettiest lot in the sale; there was much competition for her, and she went eventually for 105 gs. to Mr. Thornton. Mr. Fawcett got a very pretty Cleopatra yearling from lot 2, cheap at 57 gs.; and Wellingtonia 2nd by 12th Duke of Thorndale was anything but handsome; a peculiar roan, and evidently light fleshed, she seemed dear at 200 gs. to Mr. Leney.

Lot 10, of the bulls, Royal Chester, a plainish, growing bull with a nice colour, inferior head, and good flank, was brought in first and put up at 100 gs. There was little competition for him. Mr. White, however, who evidently fancied him for his sister's sake, opposed Mr. Strafford, who got him at 200 gs. for Mr. Barnes, of West Sydney. Lot 1, Grand Duke of Essex 4th, had not improved on his yearly appearance when Mr. Davies gave 170 gs. for him, and went at a trifle over market price. Then came in lot 16, by far the handsomest calf in the sale, and one of great promise; he was own brother to Royal Chester, and Mr. Knowles got him cheap enough at 130 gs.

With this the interest of the Shorthorns ceased, and Messrs. Lythall and Clarke discoursed to an almost local company on the merits of the very superior Shrops, which had been selected from some of the best flocks. A few were passed, but on the whole fair prices were obtained, from 5½ to 18½ gs. Five pounds per head was paid for a pen of shearling ewes, and the first saw, a handsome lot bred for Mr. Atherton, made 10½, whilst her daughter fetched £13. This concluded a very successful and pleasant though somewhat tedious business. Subjoined are the prices:

COWS AND HEIFERS.

Moss Rose, roan, calved July 2, 1858, by Marmaduke (14897), out of Cambridge Rose 6th by 3rd Duke of York (10160).—Mr. E. H. Cheney, 350 gs.
 Cleopatra 5th, roan, calved January 2, 1861, by 9th Duke of Oxford (17738), out of Cleopatra 3rd by C'dge Barrington 2nd (14224).—Duke of Devonshire, 80 gs.
 Harmony, red and white, calved November 2, 1861, by Cherry Duke 3rd (15763), out of Floret by Douglas (12714).—Mr. C. M. Hamer, 46 gs.
 Wellingtonia, roan, calved May 5, 1862, by 3rd Duke of Thorndale (17749), out of Waterloo 24th by Grand Duke 3rd (16182).—Mr. W. W. Slye, 160 gs.
 Charlotte 4th, roan, calved March 29, 1863, by Duke of Knowlmore (19623), out of Charlotte by Noble Arthur (16621).—Mr. John Thornton, 41 gs.
 Candidate's Duchess, red and white, calved July 17, 1863, by Duke of Wharfedale (19648), out of Candidate by Jasper (11609).—Mr. J. Hallsall, 35 gs.
 Cleopatra 9th, roan, calved November 15, 1863, by Lord Oxford (20214), out of Cleopatra 4th by Duke of Buckingham (14428).—Mr. J. Harward, 65 gs.
 Rose of Thorndale 2nd, red and white, calved April 5, 1864, by 2nd Duke of Thorndale (17748), out of Rose of February by May Duke (13320).—Mr. Thorn, 49 gs.
 Flirtation 2nd, white, calved February 3, 1865, by Garibaldi (17919), out of Flirtation by Rakish (15127).—Mr. Watson, 31 gs.
 Leonora 2nd, red and white, calved July 18, 1865, by Garibaldi (17919), out of Leonora by Homer (14714).—Mr. Thorn, 36 gs.
 Rose of Thorndale 2nd, red and white, calved August 13, 1865, by Medora's Grand Duke (22337), out of Rose of Thorndale by 2nd D. of Thorndale (17748).—Mr. Thorn, 31 gs.
 Bracelet, roan, calved March 23, 1866, by Sir James (22902),

out of Blanc Mauge by Magistrate (13274).—Duke of Devonshire, 70 gs.
 Bland, roan, calved January 21, 1867, by Sir James (22902), out of Blanc Mauge by Magistrate (13274).—Duke of Devonshire, 45 gs.
 Moss Rose 2nd, white, calved January 19, 1867, by 4th Duke of Thorndale (17750), out of Moss Rose by Marmaduke (14897).—Mr. E. H. Cheney, 809 gs.
 Flirtation 3rd, roan, calved May 10, 1867, by Young Hopeful (24159), out of Flirtation 2nd by Garibaldi (17919).—Mr. Thorn, 33 gs.
 Princess Royal 2nd, red and white, calved May 29, 1867, by Young Hopeful (24159), out of Princess Royal by Garibaldi (17919).—Mr. Highfield, 25 gs.
 Charlotte 7th, red, calved September 29, 1867, by Golden Duke 2nd (21837), out of Charlotte 4th by Duke of Knowlmore (19623).—Mr. Owen, 27 gs.
 Rose of Thorndale 4th, red and white, calved March 6, 1868, by Grand Duke of Essex 4th (24068), out of Rose of Thorndale 2nd by Medora's Grand Duke (22337).—Mr. Thorn, 30 gs.
 Cleopatra 12th, white, calved April 13, 1868, by Grand Duke of Essex 4th (24068), out of Cleopatra 5th by 9th Duke of Oxford (17738).—Mr. J. A. James, 47 gs.
 Flirtation 4th, white, calved June 25, 1868, by Grand Duke of Essex 4th (24068), out of Flirtation 2nd by Garibaldi (17919).—Mr. Robinson, 20 gs.
 Cleopatra 13th, white, calved October 18, 1868, by 3rd Duke of Claro (23729), out of Cleopatra 9th by Lord Oxford (20214).—Mr. Foster, 62 gs.
 Rose of Thorndale 5th, roan, calved February 14, 1869, by Grand Duke of Essex 4th (24068), out of Rose of Thorndale 2nd by Medora's Grand Duke (22337).—Mr. Brooke, 21 gs.
 Candidate's Duchess 2nd, roan, calved February 15, 1869, by Grand Duke of Essex 4th (24068), out of Candidate's Duchess by Duke of Wharfedale (19648).—Mr. John Thornton, 105 gs.
 Leonora 3rd, red, calved February 15, 1869, by Grand Duke of Essex 4th (24068), out of Leonora 2nd by Garibaldi (17919).—Mr. Cooke, 27 gs.
 Princess Royal 3rd, rich roan, calved April 28, 1869, by 12th Duke of Thorndale (26020), out of Princess Royal by Garibaldi (17919).—Mr. Highfield, 25 gs.
 Cleopatra 14th, white, calved April 26, 1869, by Grand Duke of Essex 4th (24068), out of Cleopatra 5th by 9th Duke of Oxford (17738).—Mr. J. Fawcett, 57 gs.
 Wellingtonia 2nd, rich roan, calved May 9, 1869, by 12th Duke of Thorndale (26020), out of Wellingtonia by 3rd Duke of Thorndale (17749).—Mr. F. Leney, 200 gs.
 Charlotte 8th, red and white, calved January 16, 1870, by Grand Duke of Essex 4th (24068), out of Charlotte 4th by Duke of Knowlmore (19623).—Mr. Ratcliffe, 16 gs.
 Rose of Thorndale 6th, roan, calved March 1, 1870, by Grand Duke of Essex 4th (24068), out of Rose of Thorndale 2nd by Medora's Grand Duke (22337).—Mr. T. Statter, 26 gs.
 Leonora 4th, red and white, calved March 28, 1870, by Grand Duke of Essex 4th (24068), out of Leonora 2nd by Garibaldi (17919).—Mr. Jabez Hart, 12 gs.
 Cleopatra 15th, rich roan, calved May 8, 1870, by Grand Duke of Essex 4th (24068), out of Cleopatra 5th by 9th Duke of Oxford (17738).—Dead.
 Charlotte 9th, roan, calved June 5, 1870, by Grand Duke of Essex 4th (24068), out of Charlotte 7th by Golden Duke 2nd (21837).—Mr. Thorn, 15 gs.

BULLS.

Grand Duke of Essex 4th (24068), roan, calved May 2, 1866, by Grand Duke 4th (19874), out of Lady Bates 3rd by 4th Duke of Oxford (11387).—Mr. Thorn, 43 gs.
 Freebooter (26198), red, calved July 2, 1867, by Garibaldi (17919), out of Candidate's Duchess by Duke of Wharfedale (19648).—Mr. Statter, 29 gs.
 Enthusiast (26106), red and white, calved July 7, 1867, by Garibaldi (17919), out of Surmise 4th by 2nd Duke of Kent (19620).—Mr. Howard, 50 gs.
 Leonardo (26579), red and white, calved March 16, 1868, by Grand Duke of Essex 4th (24068), out of Leonora 2nd by Garibaldi (17919).—Mr. Middleton, 29 gs.
 Safeguard (27409), roan, calved May 29, 1868, by Grand

Duke of Essex 4th (24065), out of Sarmise 4th by 2nd Duke of Kent (19620).—Mr. F. Murton, 40 gs.
 Patriot (27048), roan, calved July 17, 1868, by Patricia (24728), out of Harmony by Cherry Duke 3rd (15763).—Mr. Ratcliffe, 27 gs.
 Don Carlos (25908), red and white, calved October 8, 1865, by Grand Duke of Essex 4th (24068), out of Charlotte 4th by Duke of Knowlmere (19623).—Mr. Thorn, 30 gs.
 Thorndale Oxford Duke, red and white, calved February 12, 1869, by 12th Duke of Oxford (19633), out of Rose of Thorndale 2nd by 2nd Duke of Thorndale (17748).—Mr. Harrison, 35 gs.
 Prince Thorndale, red and white, calved April 15, 1869, by 12th Duke of Thorndale (26020), out of Bracelet by Sir James (22902).—Mr. White, 31 gs.
 Royal Chester, roan, calved April 25, 1869, by Grand Duke 10th (21848), out of Moss Rose by Marmaduke (14897).—Mr. Barnes, 200 gs.
 Pretender, roan, calved July 21, 1869, by Grand Duke of Essex 4th (24068), out of Flirtation 2nd by Garibaldi (17919).—Mr. Robinson, 36 gs.
 Songster, rich roan, calved August 11, 1869, by Grand Duke of Essex 4th (24068), out of Harmony by Cherry Duke 3rd (15673).—Mr. Wyatt, 36 gs.
 Red Rover, red and white, calved December 7, 1869, by Enthusiast (26106), out of Princess Royal 2nd by Young Hopeful (24159).—Mr. Platt, 27 gs.
 Snowstorm, white, calved January 20, 1870, by Grand Duke of Essex 4th (24068), out of Bland by Sir James (22902).—Mr. Wright, 8 gs.
 Duke of Wellington, roan, calved May 19, 1879, by 12th Duke of Thorndale (26020), out of Wellingtona by 3rd Duke of Thorndale (17749).—Mr. Tindal, 30 gs.
 Royal Lancaster, roan, calved June 20, 1870, by 10th Grand Duke (21848), out of Moss Rose by Marmaduke (14897).—Capt. Gunter, 130 gs.
 Thorndale Baronet, roan, calved July 1, 1870, by 12th Duke of Thorndale (26020), out of Bracelet by Sir James (22902).—Mr. Thorn, 13 gs.

SUMMARY.

	£	s.	d.
31 Cows averaged £87 12s. 6d.	2,716	7	0
17 Bulls „ £49 0s. 9d.	833	14	0
Total	£3,550	1	0

48 head averaged.....£73 19s. 2d.

SALE OF MR. DRAKE'S HERD,

AT SHARDELOES, AMERSHAM, BUCKS,

JULY 15, 1870.—BY MR. STRAFFORD.

As a popular master of hounds Mr. Drake was better known than has a breeder of Shorthorns. His herd had, however, been in existence for nearly twenty years, "being long and carefully bred from the famed herds of the late Captain Dilke, the Rev. F. Thursby, and Mr. W. Torr: the sires formerly used were of the famed Knightley sort, such as St. Patrick (12038) and Scapulary (15244), followed by Final Hope (17848) from Aylesby, Lord Lieutenant (22167) from Bushey Grove, and Wizard (25468) from Sholebroke Lodge"—who was still in blind-fold service. For large fine frames and great milking properties the cattle looked excellent, and were brought out in excellent condition, especially some of the two-year-old heifers, which were a fine lot, though they all somewhat lacked that style which now seems of such high value. Mr. Torr and Mr. Gibbon rested their weary judicial labours for a day, and were present; also the Rev. J. Micklethwaite (Norfolk), Mr. Sartoris (Farnish), Mr. Aubrey Mumford (Chilton), and a small local company. A magnificent lucheon, in the true hearty old

English style, was served in a marquee, and had it been a "meet" instead of a "sale" would doubtless have been filled quickly enough; as it was the attendance was remarkably small.

The cows accordingly sold low, often under market price, going from 18 gs. to 33 gs. Mr. Micklethwaite secured the best bred cow at only 24 gs., Madrigal 6th, with three crosses of Booth blood on a Robson origin, milking heavily after calving. Mr. D. Hill of Pinner, and Mr. Heanley of Croft, also got some.

The heifers went better, lot 24, Lælia 8th, was a fine white heifer in capital condition in calf. She made but 40 gs. from Mr. Hugh Dunn, who also got Lælia 9th at 41 gs., and opposed for lot 29, Meadow Flower 13th, a thick roan, up to 37 gs. Lot 32, a very handsome roan heifer, Madrigal 18th, fetched the top price, 63 gs., and was bought by Mr. Thornton for Mr. Cochrane, Canada.

A few of the calves were very pretty and fetched from 8 gs. to 20 gs. each. Wizard (25468), a short-legged, good, red, bull, and quite active, made beef prices, and Valorous, a red yearling of the Vestris tribe, went for 40 gs. Some bull calves made as high as 8 gs. each, and the eight bulls averaged about £19 10s., the whole herd realising not quite £1,400, or about £24 a piece. The country is much burnt up, the crops look fair, and promise well, but a steady down pour for four-and-twenty hours would be of immense service.

THE INCIDENCE OF LOCAL TAXATION.

Where tenant-farmers (as is now common) are disposed to talk strongly about game and the game laws, chambers of agriculture and analogous societies are very apt to be entertained with long disquisitions on local taxation, and the various phrases wherein it is unpleasant to the landowners. Farmers are urgently asked to direct their attention to that subject. Agitation is required at their hands, and some of those alarmist tactics, which, in days gone by, rendered the farmers' interests the stalking horse of the landowners, are put in motion. But somehow or other farmers turn a heedless if not a deaf ear to such invocations. They begin to see that, as yearly tenants at all events, to shift the local burdens to the Exchequer, or to personal property, or anywhere else in relief of the landowners, would be shifting the burthen from one shoulder to the other. What they ceased to pay as taxation would be added to rent. This was exemplified lately at a meeting of the Yeovil Board of Guardians, where Mr. Andrews, a labourer guardian, strongly advocated a charge of poor rates on the owners of personal as well as landed property. Thereupon Mr. Shore asked "where the tenant-farmers were going to get the advantage of it?" As Mr. Andrews felt constrained to admit, it was more easy to ask than to answer a question. After using sundry lengthy arguments, Mr. Andrews was told by several farmers that he had not answered Mr. Shore's question. No doubt this was hard. But Mr. Parsous put the objection plainly when he said—"If he had a house to let, nearly always the first question was—'What are the rates?' Then if the rent was £100, and the rates £20, of course the applicant would take that into account; but he did not see that it affected the tenant in any other way." Then Mr. Marden said—"Supposing his (Mr. Andrews') scheme were carried out, and the tax reduced to 6d. in the pound, didn't he think that the difference would be added to the tenants in the shape of rent? He believed landlords in general would do so at once." Commenting on this meeting, the *Mark Lane Express* fairly tells its agricultural readers—"Attempt to disguise it as we may, rates and taxes with the farmer are very much a matter of rent. There is nothing so susceptible, nothing so buoyant, as rent. Only free it from its burthens, and up it goes in a moment like a balloon." All this the farmers are finding out, and it is every year becoming more difficult to make them the catspaw of the landowners in attempts to shift the taxes falling on land to other property.—*Economist*.

THE SOCIETY OF AGRICULTURISTS IN FRANCE.

TRIAL OF REAPING MACHINES.

It is some months since we noticed the origin and due recognition of this Society, under whose auspices a grand national Congress will be held in Paris in May, 1871. In the meanwhile M. Drouyn de Lhuys, the President, arranged for an international trial of reaping machines, which commenced on Monday last, on the farm of the brothers Decanville, at Petit Bourg, some twenty or thirty miles from Paris, on the Lyons line of railway. This occupation is over 3,000 acres of land in extent, not precisely in a ring fence, for there is not a fence upon it; such boundary lines as there are dividing the fields into some hundreds of acres each. There was, for instance, one of three hundred acres in wheat, another adjoining still larger in beet, while in a third of as great a range a double set of steam plough apparatus was at work breaking up the new stubble. There are water works that pump up a supply from the Seine, there are gas works, and a beet-root distillery, with boys', girls', and infants' schools for the children of the five hundred men employed on the farm.

It was here that the Messrs. Decanville received the officers of the Society and other visitors with magnificent hospitality. Professor Wilson had been nominated on the part of the Royal Agricultural Society of England, and Mr. James Howard, M.P., went over by special request of the president to "co-operate" in conducting the trials and drawing up the rules and regulations. There were twenty entries, but many of these, from the want of railway accommodation, or more properly of competition, were not sent; whilst amongst those on the field were machines from Messrs. Hornsby, Howard, Samuelson, and Mattison, together with sundry copies of the English and American machines, but made on the Continent. Some of the English firms brought over their own teams, and of course their own men. Before commencing, the jury made known the rules by which they should be guided; thus they would reckon 10 points for clean cutting, 10 for delivery of sheaves, 5 for quickness of execution, 10 for lightness of draught, 5 for lowness of cut, 10 for mechanical arrangements. Thus the exhibitors knew the points which would be most valued. Some of the implements made capital work, but the competition was ultimately reduced to the three self-delivering machines of Messrs. Hornsby, Howard, and Samuelson, which will be tried again on heavier crops immediately after the Royal Meeting at Oxford. The dynamometer test was applied to the several implements by M. Tresca.

INTERNATIONAL AGRICULTURAL SHOW AT LILLE, FRANCE.

PRIZES AWARDED TO ENGLISH EXHIBITORS.

A large gold medal, value 600 francs (£20), to Aveling and Porter, Rochester, for their double engine steam cultivating apparatus.

A gold medal, value 100 francs (£4), to Aveling and Porter, for their steam road roller.

PLOUGHS.—A bronze medal to J. and F. Howard, Bedford, for their plough for deep work. The first prize gold medal to J. and F. Howard, for their champion plough, mark B.B. The silver medal to J. and F. Howard, for their subsoil plough.

HARROWS.—The only prize, a bronze medal, to J. and F. Howard, Bedford, for their collection of harrows.

ROLLERS.—The only prize, a bronze medal, to Aveling and Porter, Rochester, for their roller and Crosskill's clod crusher.

RIDGING PLOUGHS.—The only prize, a bronze medal, to J. and F. Howard, for their ridging plough.

GRASS MOWING MACHINES.—The first prize, gold medal, to Samuelson and Co., Banbury. The second prize ("ex æquo") to W. A. Wood, London, and to J. and F. Howard, Bedford.

HAYMAKING MACHINES.—The first and only prize to J. and F. Howard, Bedford.

HORSE RAKES.—The first and only prize to J. and F. Howard, Bedford.

REAPING MACHINES.—The first prize, gold medal, to Samuelson and Co., Banbury. The second prize, silver medal, to J. and F. Howard, Bedford. The third prize, bronze medal, to Brigham and Bickerton of Berwick on Tweed.

A gold medal, value 100 francs (£4), to Aveling and Porter, Rochester, for their road locomotive.

A silver medal to Woods, Cocksedge, and Warner, Stowmarket, for their collection of machines and notably for their crusher.

THE SUGAR-BEET BUSINESS.

At the Harleston dinner, Sir W. Jones, as he always does, spoke to the purpose, and endeavoured to elicit some remarks from the member for South Norfolk on the desirability of the farmers of this country turning their attention to growing the Silesian beet and having it manufactured into sugar. The worthy baronet's argument was very ingenious, but he will, we think, find farmers slow to move in the sugar-beet business, simply because they, like ourselves, are at present unable to see that it would answer the purpose to go to a great expense in growing a crop of beet, cart it perhaps several miles to the manufactory, and then be paid but a small sum per ton, and this too, when (if we are correctly informed) every bit of top, dirt, and root must be carefully cleared from the bulbs before they are weighed. The cleaning would not only be a tedious and expensive matter on heavy soils, but would reduce the weight per acre very considerably, not that we want to sell the soil, only when persons make out that they have grown a great weight of mangold per acre, a tolerable amount of soil sometimes hangs to the roots when they are weighed. Then, again, we apprehend that, in other respects, "all is not gold that glitters;" for we fancy that if a farmer made a practice of selling his mangold from his farm every year, the landlord would soon demand heavy compensation for damage sustained. Would it not also necessitate the keeping of less cattle upon a farm if the food upon which the farmer mainly depends for his sprig grazing was sold? Feeding stuffs may always be bought, but there will be some difficulty in finding a substitute or an equivalent for mangold. Even if it is found to answer on the strong land about Lavenham, in Suffolk, is it at all likely that it would answer on the bulk of the land in Norfolk? We should like to know what the farmers who have tried this sugar-beet growing think of it, and if, as a rule, they are going on with it? We happen to know a very good tenant on a farm in every way adapted for growing the sugar-beet, and situate within a few miles of a beet-sugar manufactory, where beet is bought at a fixed price per ton, delivered at the works. Now this tenant is a sharp, intelligent, keen observing, practical man, and knows how to make the most of things as well as any man, and has, consequently, watched the sugar business pretty closely. His landlord, wishing to do him a good turn, and to encourage him, and having heard a deal about the great profits to be made by growing sugar-beet, very kindly told him he might take advantage of the excellent opportunities offered him during the remainder of his lease, and in a new lease clauses for the growing and selling of this kind of beet should be inserted. The answer was, "very much obliged for your kind intentions, but I have no desire to sell the mangold off my farm;" and, further, he said if he thought he should be compelled to carry out such a system in the management of his farm, he should decline to take another lease. It is true this is only the opinion of one man, but we should like to know how many practical men could be found in Norfolk to say he was wrong in the view he took of the matter. Mr. C. S. Read very dexterously and properly avoided being led into discussing a matter about which he confessed he had had no experience.—*The Norwich Mercury.*

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

MEETING AT OXFORD.

"If a foreigner had come to Oxford expecting to see the best show of breeding stock which England could produce, he would have been led to form a very inadequate idea of the merits of the different sorts of live stock bred in this country." So says the official Report on the first Meeting of the Royal Agricultural Society as held in the July of 1839. And what has occurred in the interim? If a foreigner should travel down to Oxford again expecting to see the best breeding stock which England can produce, we will undertake to say that he shall not be disappointed. In fact, foreigners themselves have made it a practice for many years past to attend these meetings, knowing very well as they do that they will be tolerably certain to see the best of everything. There is no other such an advertisement for the breeder, there is no other such an opportunity for the buyer. The Royal Agricultural Society of England, as proved by its celebrations in 1839 and 1870, will be found to have ably fulfilled its mission.

It may not, by the advent of another meeting, be altogether uninteresting or unprofitable to make some reference here to the proceedings at the first Oxford Show, the more especially as it so happened that we ourselves were present, and thus do not speak merely on hearsay. The great national breeds of stock had then, very much as they have now, a pre-eminence on the prize sheet; although many of the exhibitors, it was clear enough, required educating up to such a movement. As the Report said, "One of the advantages to be derived from an exhibition of this nature is to show farmers and breeders of live stock the perfections in shape and quality at which they ought to aim; and it should therefore be no disappointment to the Society to find that some of the exhibitors proved, by the animals which they brought to the show, that they were at present very deficient in this knowledge." But further, it was equally plain that some who possessed such knowledge, who had arrived at something like perfection in shape and quality, did not at the outset see the advantage of publicly displaying their attainments. There were in all twenty-six entries of Shorthorns, the majority of which were sent in from the immediate neighbourhood; while only one Yorkshire or North Country herd was represented, that of Mr. Bates, of Kirkleavington, as the other names that still live in Shorthorn annals were Mr. Baker, of Cottesmore, and his neighbour Lord Exeter, Mr. Beasley, of Chapel Brampton, and Mr. Langston, of Sarsden. Mr. Bates with his Duke and Duchesses took all the premiums but one for bull calves, and at the show of next week the Dukes and Duchesses will be one of the very few famous herds in England that the foreigner will seek for in vain. Those, however, who remember the Duchesses of those days would scarcely now be prepared to give them such unqualified precedence, so that their absence will not be so keenly felt. There has been a deal of good done with the Shorthorn since 1839.

The fifteen Devons were officially declared to have "excited great attention from the purity and beauty of the animals;" and yet they were but Somerset Devons, as there is not the name of a North Devon or Cornwall man to be traced in the catalogue. We have arrived at a somewhat higher opinion of the purity and beauty of the blood-red Devon since 1839. There were twenty-four

Herefords with the Reverend J. R. Smythies, one of the great champions of the White-faces, continually beaten, so that the competition must have been tolerably strong; but a nine-years-old Hereford cow from Lynch Court took the first prize in a mixed class as "best calculated for dairy purposes." Have the Herefords improved in this way since 1839? A Long-horn bull and a Sussex cow were in their respective classes the best of the other breeds, and Mr. Rowland sent five Herefords from the famous Creslow pastures that the judges declared would pay best for grazing; the next best being five Devons exhibited by Mr. Trinder, of Wantage. Where were the Shorthorn steers in 1839?

Amongst the sheep there were thirty-five entries of Southdowns, where a Mr. J. Webb, from Babraham, in Cambridgeshire, exhibited some animals that commanded no attention, and Mr. Stephen Grantham from Sussex, and Mr. T. Crisp from Suffolk took the chief honours. There were some thirty entries of Leicesters, with Mr. Sam Bennett, and Mr. Earl, of Earl's Barton, declared to be the crack ram breeders; and there was a mixed lot of Lincolns and Cotswolds, of seventeen entries between them, and with the Cotswolds in the ascendancy. Mr. Hewer, Mr. Slater, and Mr. Large were exhibitors in 1839, and will the Cotswolds offer a better front in 1870?

The following passage from the report, speaking to a part of the proceedings long since abandoned, has an air of primitive simplicity about it which comes in curious contrast to the organization of system now arrived at: "The prize intended to be given by the Society, in order to ascertain the best and most productive varieties of wheat, cannot be decided. The wheat exhibited was of excellent quality, and the judges selected, as was intended, two samples of white and two samples of red wheat, of great beauty and purity for trial; but the desire of the public to examine the different samples shown, and to compare them together, was so great, that not only a deal of the wheat from the selected parcels was thrown down and lost, but the wheat from all the parcels was mixed together, so that either as to quality or to purity the wheat sown might have been very different from that which was exhibited." How Mr. Branareth Gibbs and his stewards would stare at such arrangements as these; although it is almost to be regretted that the mixed sample was not tried, particularly as both parcels were of such beauty and purity. Some of our greatest discoveries have been the result of accident, and in the art of mixing or crossing a happy chance has often achieved more than the most laborious research. Scarron, the French comedian, as *The Spectator* tells us, being in sore need, stationed himself just outside the door of a tobaccoist in the most frequented part of Paris, where with a very engaging manner he begged a big pinch from the box of every customer as he came out. These pinches were all carefully preserved and sold back to the shopkeeper, who soon became famous for a new variety of snuff, which he called "Tabac de mille fleurs." The curiosity of the farmers at Oxford in 1839 might have led to some such similar invention in the way of seed corn—"Wheat from a thousand hands."

During the week there was a General Meeting of the Members, at which prize essays were read, and a dinner at which speeches were made. From all these the now

most noticeable contribution was a paper on the Comparative Advantages of Wheel and Swing Ploughs, by Mr. Handley, M.P., who went almost altogether for the wheel plough; while the Report says that "Messrs. Ransome exhibited a variety of ploughs of superior construction, amongst others a Bedfordshire plough with wheels, to which is adapted a lever for enabling a ploughman to regulate the depth of the land-wheel as the plough is in motion." Then, again, "Mr. Hart, of Wantage, exhibited some very clever swing and wheel ploughs; one also by Mr. Howard, of Bedford, of small size, with a mould-board of an excellent form, calculated to give the least resistance in turning over the furrow was much approved." How suggestive, how pregnant with matter, how something like the foreshadowings of the *Vates* of old do these reports of thirty years since now read! At the same time they serve to show that although started in something like "fear and trembling" the lines of the Royal Agricultural Society were laid straight enough, and that were her first commander Lord Spencer still amongst us, he might look back with some pride at her first voyage out.

THE IMPLEMENT DEPARTMENT.

"Trials of steam-engines, horse-gears, crushers, chaff-cutters, oilcake breakers, turnip cutters, steaming apparatus, dairy implements, from Monday, July 11, to Saturday, July 16." So says the official announcement; but thirty-one years since when the Royal Agricultural Society of England held its first meeting in Oxford there were no trials of fixed steam engines, simply because there were no steam engines to try. Beyond Trevithick's little engine down at Trewithin, that had been at the service of the Cornwall farmers for some thirty years or more, the use of steam power for the purposes of agriculture was unknown alike to manufacturers and farmers when the new Society went to Oxford in 1839. Many of the other implements, the turn of which comes round again here, were, however, "for the most part," as the Report has it, "familiar to one or other of those present." And we gather accordingly that "the judges especially invited attention to the chaff-cutting machines," as exhibited by Ransomes of Ipswich. "The one, No. XII. is the largest and most powerful of its kind hitherto constructed. It is remarkable for the equable slicing-out of the two knives, each three feet long, fixed on the fly-wheel, and for the method of advancing the straw. The first operation is effected by the peculiar form of the cutting edge of the knives, which pass through the straw at the same angle with it from point to heel; and are so adjusted as to act with nice precision against the polished metal surface of the straw-box. The straw, which is stationary and firmly compressed by the press-board during the cut, is advanced in the interval of one knife finishing and the other commencing its action. This operation is accomplished very exactly and simply, by means of an elliptic wheel, driven by an eccentric circular one, whose motion is derived from a latchet wheel on the same axis acted on by a crank, so that the straw is forced rapidly forward; the press-board in front being at the same time raised to take off the friction, and brought down again with a powerful grip upon the straw, whilst the knife passes through it. A contrivance is also adapted for varying the length of the chaff from 3-8ths to 1½ inch in length. With the ½ inch cut, it was stated to produce half a ton of chaff per hour, with the power of two horses, and so on in proportion to the length of cut. This machine is equally applicable to steam or water, as to horse power." Such was the model chaff-cutter of thirty years since, and on the prize list we find the Society's GOLD MEDAL duly awarded to Messrs. Ran-

somes of Ipswich, "for their excellent display of implements and especially their chaff-cutting machines and Biddell's scarifier." Again, we gather that "Gardner's excellent turnip-slicer, and a similar one of Edwards' were exhibited, as also one of Harts', the cutting part of which resembled that of Gardner; but it was placed on the side of a cast-iron disk, instead of being attached, as Gardner's, to the circumference of a cylinder." The exhibition of implements was not in other ways a very large one, the Garretts and Howards being almost the only firms of any present eminence that then entered the lists with the Ransomes. Nevertheless the judges did not close their brief report "without expressing their approbation of the exhibition of implements generally, and though many of them are well known to the practical agriculturist, yet there appears such a marked improvement in their manufacture and construction, that the Judges congratulate the Society on the progressive advance in the science of agricultural mechanics." The judges of implements were Mr. H. Handley, M.P., Mr. Parkes, and Mr. John Morton. To what further progressive advance their successors in 1870 will be able to speak the experience of this busy meeting will serve to show.

The seventy odd acres of ground are well occupied, and some £300 more has been paid by the manufacturers for "ground rents;" and the catalogue, was published in good time this year, is gradually becoming more bulky; on this occasion reaching 535 pages, and embracing 7,851 entries and 404 stands of implements. The number of articles shown is in excess of the last show by about 130, but this does not mark so rapid an increase as in the three previous shows, which each exceeded the preceding one by more than 1,000 entries.

Barford, of Banbury, has the large number of 180 entries, of which 5 are described as new implements.

Amies, Barford, and Co., of Peterborough, 100 entries, of which two are stated to be new, and 14 are set down for trial.

Perkins, Hitchin, 31 entries, among which are 3 new implements.

Asliby, Jeffery, and Lute, Stamford, 46 entries, 10 for trial and 6 new implements.

W. Crosskill and Sons, Beverley, 30 entries, 1 for trial.

T. Baker, Compton, Newbury, 55 entries, 4 for trial.

E. H. Bentall, Maldon, 50 entries, 14 for trial.

E. Cambridge and Co., 33 entries, 2 for trial.

Ransomes, Sims, and Head, 79 entries, 1 described as a new implement.

Reuben Hunt, Halstead, 24 entries, 14 for trial, and 3 new implements.

R. Hornsby and Sons, Grantham, 56 entries, 9 set down for trial.

R. Boby, Bury St. Edmunds, 30 entries.

Beverley Iron Works, 49 entries, of which 10 were for trial, 2 new implements.

Haslam and Clarke, Healey, 36 entries, 3 for trial.

Bristol Implement Company, 1 new for trial.

J. Alcock, Ratcliffe-on-Trent, 7 entries, 4 for trial, 1 new implement.

Coleman and Mortou, Chelmsford, 28 entries, 3 for trial, 1 new implement.

A. W. Gower and Son, Market Drayton, 25 entries, 1 new implement.

Burgess and Key, London, 9 entries, 2 of which new implements.

Hunt and Pickering, Leicester, 117 entries, 18 for trial, and 8 described as new.

John Barrowman and Co., Dunfermline, 4 new implements.

A. C. Bamlett, Thirsk, 17 entries,, one a new reaping machine.

W. Ball and Son, Rothwell, Kettering, 53 entries, among which are 6 described as new implements.

James Cornes and Co., Nantwich, 24 entries, 8 for trial.

John Fowler and Co., London, 36 entries.

Robert Maynard, Cambridge, 10 entries, 3 for trial.

Picksley, Sims, and Co., Leigh, 134 entries, 13 for trial, and 13 new.

Brown and Maude, Shrewsbury, 10 entries of which 9 are new, 1 for trial.

R. Winder, Dartford, 2 new implements, both for trial.

Fiskin and Co., Leeds, 4 entries, 1 new, and 2 for trial.

W. Tasker and Son, Andover, 29 entries.

W. S. Underhill, Newport, 30 entries, 1 for trial, 5 new implements.

Thomas Sheen, Aylesbury, 8 entries, all for trial.

Lewis and Hook, Shrewsbury, 88 entries, 27 described as new implements, 17 for trial.

Reading Iron Works, 27 entries, 8 for trial.

Woods, Cocksedge, and Warner, Stowmarket, 67 entries, 31 for trial.

Southwell and Co., Rugeley, 46 entries, 21 for trial, 35 described as new.

John Freer and Co., Loughborough, 2 new implements.

W. N. Nicholson, Newch, 60 entries, 10 for trial, 1 new implement.

Robert Tinkler, Penrith, 11 churns, all for trial, 4 described as new.

Edward Page and Co., Bedford, 62 entries, 9 for trial.

Wallis and Strevens, Basingstoke, 35 entries, 1 a new implement.

P. and W. Hobbs, Basingstoke, 17 entries, 7 for trial, 1 new implement.

E. R. and F. Turner, Ipswich, 38 entries, 17 for trial.

Richmond and Chandler, 36 entries, 3 for trial, 2 new implements.

William Woofe, Bedford, 5 entries, 1 new implement for trial.

Vickers, Snowden, and Morris, Doncaster, 11 entries, 2 new implements.

Thomas and Taylor, Manchester, 45 entries, 2 churns for trial.

Mellard's Trent Foundry, Rugeley, 60 entries, 23 for trial, 6 new implements.

J. and F. Howard, Bedford, 85 entries.

Walter A. Wood, London, 9 entries, 3 new implements.

G. W. Murray and Co., Banff, 8 entries, 5 of them new implements.

Richard Garrett and Sons, Saxmundham, 29 entries.

Joseph Gilbert, Evesham, 9 entries.

H. and G. Kearsley, Ripon, 9 entries, 5 for trial.

Joseph Warren, Maldon, 38 entries, 2 for trial.

John Gray and Co., Uddingston, 16 entries, 6 new implements, 5 for trial.

James Eastwood, Blackburn, 28 entries, 19 churns for trial.

Morton and Turner, Kenninghall, 6 entries, 1 a new implement.

James Davis and Son, Hemel Hempstead, 13 entries, 5 new, 3 for trial.

John Cooke and Co., Lincoln, 24 entries, 11 new implements.

Thomas Corbett, Shrewsbury, 29 entries, 13 new implements, 20 for trial.

C. Denny and Co., Chard, 12 entries, 6 for trial.

Aveling and Porter, Rochester, 5 entries, 1 new for trial.

John Tye, Lincoln, 15 entries, 4 for trial.

John Weighell, Pickering, 6 entries, 4 for trial.

Timothy Thomas, Cardigan, 4 entries, 3 new implements, 1 for trial.

Tuxford and Sons, Boston, 20 entries.

Alexander Aldworth, Abingdon, 5 entries, 1 for trial.

Whitmore and Benyon, 14 entries, 1 new implement for trial.

Marshall, Sons, and Co., Gainsborough, 15 entries, 2 engines and 1 mill for trial.

Wm. Foster and Co., Lincoln, 4 entries.

Davey, Paxman, and Davey, Colchester, 10 entries, 2 new implements, 1 for trial.

Robey and Co., Lincoln, 11 entries, 2 for trial.

Ruston, Proctor, and Co., Lincoln, 15 entries.

Riches and Watts, Norwich, 17 entries, 6 for trial.

A. B. Childs, London, 4 entries, 1 for trial.

Clayton and Shuttleworth, Lincoln, 19 entries, 2 for trial.

J. E. Hodgkin, West Derby, 8 entries, 5 for trial, 4 new implements.

W. Allchin and Co., Northampton, 4 entries, 1 for trial.

The following is a complete list of the stands:—

Arnold and Sons, London; Ashley Jeffery, and Luke, Stamford; Atmospheric Churn Co., London; Aveling and Porter, Rochester; Atkinson, London; Afflick, Swindon; Aylseford, London; Allway & Son, London; Alcock, Nottingham; Agricultural and Horticultural Association, London; Allechin and Son, Northampton; Amies, Barford and Co., Peterborough; Aldworth, Abingdon; Bentall, Maldon; Beard, Bury St. Edmunds; Bradford and Co., London and Manchester; Baker, Wisbeach; Burney and Co., London; Boby, Bury St. Edmunds; Baylis, Jones, and Baylis, Wolverhampton; Beach and Co., Dudley; Barford, Banbury; Barrows and Stewart, Banbury; Beverley Waggon Co.; Brown and Co., London; Baker, Compton, Newbury; Ball, Rugby; Barton, London; Barton and Sons, Carlisle; Bellamy, London; Boulton and Co., Norwich; Braggins, Banbury; Bristol Waggon Co.; Browning, Oxford; Bush, Histon, and Bush, Notts; Barrowman and Company, Dumfermline; Bell, London; Brown, Lyme Regis; Brice, London; Burgess and Key, London; Bristol Implement Company; Barford, St. Neots; Belcher, Gee, and Company, Gloucester; Brown and May, Devizes; Badger, Worcester; Bamlett, Thirsk; Barnard, Bishop, and Barnard, Norwich; Ball and Sons, Kettering; Binnie, Dayer, and Co., Chipping-Norton; Burrell, Hertford; Brown and Maude, Shrewsbury; Birmingham Boiler Co.; Barton, Boston; Burgess, Malvern Wells; Cottam and Co., London; Coultas, Grantham; Clayton and Shuttleworth, Lincoln; Clarke and Son, Brackley; Cranston, Hemel Hempstead; Childs, London; Carson and Toone, Warminster; Carson and Son, London; Carr, Bristol; Crosskill and Sons, Beverley; Clay, Wakefield; Corbett, Shrewsbury; Cambridge and Co., Bristol; Coleman and Morton, Chelmsford; Corbett and Son, Wellington, Salop; Corcoran, Wett, and Co., London; Central Cottage Improvement Society, London; Cousins, Oxford; Cooch, Northampton; Cooke and Co., Lincoln; Coulthurst, Symons, and Co., Bridgwater; Crowe, King's Lynn; Clemens, Abell, and Co., Worcester; Cheavin, Boston; Crowther and Co., Huddersfield; Cullingford, Stratford; Carter and Co., London; Cornes and Co., Nantwich; Clemensha and Co., Manchester; Cranston, Birmingham; Day, Son, and Hewitt, London; Davis, London; Driffield Linsced Cake Co., Driffield; Day and Sons, Crewe; Dodge, London; Dean, Oxford; Duffield, London; Davis and Co., London; Davy, Oxford; Davey, Faxman, and Davey, Colchester; Denny and Co., Chard; Dimsdale and Co., London; Denton, Wolverhampton; Davis and Son, Hemel Hempstead; Dowling, London; Duffield, sen., London; Davis and Co., London; Dickson and Sons, Chester; Derbyshire Cheese Factory Association, Derby; Dennis and Co., Chelmsford; Ellis, London; Eldridge, Bicester; Eagles, London; Early, Witney; Eddington, Chelmsford; Eastwood, Blackburn; Foster and Co., Lincoln; Fardon, Leighton Buzzard; Fenton, Great Grimby; Fiskin and Co., Leeds; Fox and Co., London; Friedlander, Breslau; Farmers' Supply Association, London; Follows and Bate, Manchester; Fowler and Co., London; Fell, Windermere; Freer and Co., Loughborough; Gros, Plymouth; Garrett and Sons, Leiston; Gibbs, Sewardstone; Gray, Sheffield; Grover and Baker, London; Gibbs, T., and Co., London; Garduer, Gloucester; Gibbs, J., and Co., London; Gower and Sons, Winchfield; Green and S O Leeds; Gilbert, Evesham; Gill and Co., Oxford; Griffin, Morris, and Griffin, Wolverhampton; Gibbons, Wantage; Gilbert, Abingdon; Gray and Co., Glasgow; Guggenheim, Oxford; Gwynne, London; Howard, Bedford; Hedges, Kendrick, Oxford; Hollis and Sons, Witney; Hodgkins, Liverpool; Haslam and Clarke, Henley-on-Thames; Hilton and Co., Liverpool; Hope, Wellingborough; Hardon, Manchester; Harrison and Sons, Leicester; Harlow, Macclesfield; Hill and Co., York; Heard, London; Headley and Sons, Cambridge; Haynes and Sons, London; Hollis, Stow-on-the-Wold; Hancock and Poden, Sandbach; Hare and Co., London; Hart and Co., London; Hancock, Dudley; Handley, Birmingham; Harris, Bermuda; Hobbs, Basingstoke; Hodgetts, Moreton-in-Marsh; Holmes and Son, Norwich; Hornby and Sons, Grantham; Hathaway, Chippingham; Hepburn and Sons, Southwark; Houghton and Thompson, Carlisle; Headley, Cambridge; Hilston and Co., Wandsworth; Harwood, Finsbury; Hunt, Earls Colne; Humphries, Pershore; Hunt and Pickering, Leicester; Hayward, Tyler, and Co., London; Hydes and Wigfull, Sheffield; Hunter, Maybole, N.B.; Hud-

speth, Haltwhistle; Hill and Smith, Brierley Hill; Hirst and Sons, Halifax; Howes and Son, Norwich; Halstead and Co., Newark; Howorth, Bolton; James, Cheltenham; Johnstone, London; Jones and Rowe, Worcester; Jones, Gloucester; Inman, Stretford; King, Coggeshall; Kerslake, Exeter; Kearley, Ripon; Kittmer, Louth; Ligon, Finsbury, London; Long, Bampton; Lewin, Poole; Lewis and Poole, Shrewsbury; Lampitt, Banbury; Larkworthy and Co., Worcester; Le Butt, Bury St. Edmunds; Lucy and Co., Oxford; Musgrave Bros., Belfast; Marshall Bros. and Co., Gainsborough; Matthews and Co., Driffield; Mattison, Bedale; Major and Co., Bridgewater; McKenzie and Sons, Cork; Massey, Openshaw; Maynard, Cambridge; Menuit de Lion and Co., Clerkenwell; McNaught and Smith, Worcester; Moule's Earth Closet Co., London; Merton and Turner, Harling; Main and Co., London; Merryweather and Sons, London; Mellard, Rugeley; Milford and Son, Cullompton; Murray and Co., Banff; Markall and Sons, London; Middleton, Southwark; Moore and Co., London; Myers and Co., London; Mulliner, Leamington; Messenger, Loughborough; Mapplebeck and Lowe, Birmingham; Marsden and Co., Leeds; Milford, Exeter; Milburn, Manchester; McNeil and Co., London; McFew and Co., of London; Moreton and Co., Liverpool; Native Guano Company, London; Nalder and Nalder, Wantage; Nye and Co., London; Norton, London; Nicholson, Newark; Nell, Harrison, and Co., London; Oliver and Co., London; Oldham and Booth, Kingston-upon-Hull; Owens and Co., London; Proskaner and Co., London; Penney and Co., Lincoln; Powis and Co., London; Pooley and Son, Liverpool; Powis, C. and Co., London; Parkes and Co., Birmingham; Perkins, Hitchin; Pierce, London; Pickering, Stockton-on-Tees; Pinfold, Rugby; Parham, Bath; Page and Co., Bedford; Picketsley, Sims, and Co., Leigh; Plenty and Son, Newbury; Proctor and Ryland, Birmingham; Priest and Woolnough, Kingston-on-Thames; Parsons and Son, Birmingham; Phillips and Co., Leeds; Pavy, France; Ransome, A. and Co., London; Ransomes, Sims, and Head, Ipswich; Richmond and Chandler, Salford; Richards, London; Reading Iron Works Co., Reading; Riches and Watts, Norwich; Reeves, Westbury; Robinson and Richardson, Kendal; Ransome, S. E. and Co., London; Robinson, Bridgewater; Robinson and Son, Rochdale; Rollins, London; Rainforth and Son, Lincoln; Richmond, Colne; Randall, Leighton Buzzard; Ruston, Procter, and Co., Lincoln; Robey and Co., Lincoln; Robinson and Co., Kettering; Ravenscroft, London; Rendle, London; Ransbottom and Co., Leeds; Roberts and Son, Bridgewater; Roberts, Stony Stratford; Samuelson and Co., Banbury; Spong and Co., London; Smith, London; Smith, Kettering; Sharman, Melton Mowbray; Smith and Grace, Thrapston; Sutton and Sons, Reading; St. Pancras Iron Company, London; Sawney, Beverley; Sales and Co., London; Singer Machine Co., London; Simpson and Co., London; Silvester, London; Shrewsbury, London; Shepherd, Abingdon; Stacey and Sons, Uxbridge; Startin and Co., Birmingham; Scott, Manchester; Stacey, Newbury; Salmon, Bermondsey; Sainty, Wisbeach; Salmon, Tomlin, and Co., Kettering; Sheen, Aylesbury; Siddeley and Co., Liverpool; Summerscales, Keighley; Slack and Brownlow, Manchester; Shand, Mason, and Co., London; Smith and Sons, Witham; Spear and Jackson, Sheffield; Schafer and Budenberg, Manchester; Staynes and Sons, Leicester; Sinclair, Manchester; Seary, Oxford; Smith, Lowthorpe; Shuttleworth, Sheffield; Southwell and Co., Rugeley; Topham, London; Tipper, Birmingham; Taylor, Rumsey; Thorn, Norwich; Tasker and Sons, Andover; Thomas, Stratford-on-Avon; Tangye, Bros., and Holman, London; Turner, Ipswich; Taylors' Sewing Machine Co., Driffield; Thomas and Taylor, Salford; Thomas, Cardigan; Tuxford and Sons, Boston; Tye, Lincoln; Tennent and Co., Leith; Thompson, Perth, N.B.; Tinkler, Penrith; Thompson, Edinburgh; Unite, Paddington; Underhill, Newport; Vulcan Iron Co., Ipswich; Vickers, Snowden, and Morris, Doncaster; Wendover, London; Weir, London; Webb and Son, Stowmarket; Whitehead, Preston; Watson, Andover; Wood, London; Williamson, Kendal; Worssam and Co., Chelsea; Webb and Co., Worcester; Warner and Sons, London; Worth, London; Willacy, Preston; Woods, Cocksedg, and Warner, Stowmarket; Wheeler and Son, Gloucester; Wilderspin, St. Ives; Waide, London; Walworth and Co., Bradford; Wilder, Wallingford;

Woolfe, Bedford; Warren, Maldon; Winder, Farningham, Dartford; Woolley, Allestree, Derby; Whitmore and Brinyon; Wickham Market; Weighell, Pickering; Wallis and Stevens, Basingstoke; Wilson and Co., London; Wright, Birmingham; Wheeler, Nottingham; Williamson, Reading; Yarrow and Headley, Isle of Dogs.

The first portion of the business of the thirty-second annual meeting commenced on Monday, July 11, and much credit is due to the bulk of the exhibitors, who were well forward in their preparations in conformity with the rules of the Council. Even the delay with those few who were late in the yard on Saturday arose more from pressure of traffic on the railways than from any dilatoriness on the part of the exhibitors. The general arrangements have been well carried out, with the exception of a little want of preliminary action in the engineering supervision, for great delay and difficulty arose from the bad working of the official registering dynamometers, which although supposed to be effective and expensive apparatus for counting the revolutions, were half the time in a state of rest and would not act at all! so that one would even have been content to have had the old treble-faced gas counters rather than no register at all when important implements were being tested, and which had in consequence to be tried over again, to the loss of time both to judges and exhibitors. So with the testing boilers, one or two harmless but startling explosions took place, owing to the bursting of the connecting india-rubber tubing, for which brass tubing would, we should have thought, have been better. Clayton and Shuttleworth had the trial of their engine stopped, owing to the excessive heat produced in running journals of the dynamometer, and separate sets of judges had to borrow the dynamometer to test their machines.

There was a want of announcement, too, to exhibitors as to the trial of horse gear; of which there were a great number entered, and at least fifty to be tested, but it was only on Friday that the exhibitors were made aware where they were to be tried, and then all the labour and expense which had been incurred in fixing had to be done over again.

One of Aveling and Porter's small traction engines, guided by a lad, did effective service all the week in fetching to and carrying from the trial-yard, heavy mills and bulky machines, like an elephant of vast power whipping its trunk round objects and moving them about in any direction with the greatest ease.

The width of the implement yard averages about 750 feet. There are 1,120 feet of shedding for implements in motion, 50 implement sheds, each 225 feet in length, and the shedding occupies the chief portion of the area erected across the yard in two rows of 25 feet with an avenue 70 feet in width running between the rows down to the trial-yard on the south side of the enclosure nearest the town; 850 feet more of machinery in motion is at work on the western boundary.

Monday, as usual, may be said to have been devoted entirely to preliminary arrangements and preparations, much of which might have been done on the previous Saturday, had due forethought, resulting from past experience, been exercised. The principal work achieved was commencing the trial of chaff-cutters and the testing of steam gauges. In 30 of the latter very great discrepancies were discovered. The standard by which they were tested was 50 and the highest gauge was found to be $7\frac{1}{2}$ above the standard and the lowest 60.

THE GRINDING MILLS.—In the mill trials on this occasion the competitors were timed to five minutes, to grind the largest quantity of meal equal or better to a sample produced by the miller employed. The mills selected for competition were:

1st. A portable corn grinding mill, invented and manufactured by Hancock and Foden, of Sandbach, Chester, price £50; fitted with one pair of 3 ft. 6 in. Mow Cop grey stone, on substantial metal frame with gearing complete.

2nd. A grinding mill with stone grinders 3 ft. 6 in. in diameter, invented and manufactured by John Weighell, of Pickering, Yorkshire, price £35: fitted with the best Derbyshire Peak stones, suitable for grinding or crushing all kinds of grain for farmers' use.

3rd. An independent iron-framed portable grinding mill, invented and manufactured by Whitmore and Benyon, of Wickham Market, price £55; with stones £2 10s. extra; with fast and loose pulley, fitted with 33 in. diameter French stones of superior quality.

4th. An improved grinding mill for steam or water power, manufactured by the Reading Iron Company, price £86; fitted with best burr bed stone and Peak runner 48 in. diameter, with crane for lifting the stone and pulley.

5th. The Royal Agricultural Society of England's Bury St. Edmund's first prize grinding mill, with French burr stones, manufactured by E. R. and F. Turner, Ipswich, price £55; mounted on an iron frame and constructed in the most substantial manner.

6th. Robey and Co., of Lincoln, a corn grinding mill, fitted with one pair of best Derbyshire Peak stones 3 ft. 6 in. diameter, price £50; the stones and machinery are fixed in a metal frame of excellent design, rendering the mill both strong and portable.

7th. Ashby, Jeffery, and Luke had a mill selected for trial with 42 in. stones, price £45, with crane £6 10s. extra; it was well and strongly-built, with oak frame, and stones of best quality Derbyshire Peak; gear-work strong, simple in management and noiseless; but did not compete.

8th. Marshall, Sons, and Co., of Gainsborough sent in a cylindrical iron frame grinding mill, price £54; fitted with 3 ft. 6 in. Derbyshire stones, complete with driving pulley.

9th. Woods, Cocksedge, and Warner, of Stowmarket, competed with a mill with 42 in. French burr stones, price £65; strongly constructed, with iron frame, and every improvement necessary for grinding any corn into flour or meal.

10th. John Tye, of Lincoln, sent in one of his portable grinding mills, fitted with 3 ft. 6 in. grey stones, price £56; on metal frame, with all necessary fittings; but some parts gave way in the trial and it had to be removed.

The comparative result of the trials, as far as regards quantity turned-out in the prescribed time, is shown by the following figures:

	Barley.		Wheat.	
	Lbs.	Oz.	Lbs.	Oz.
Hancock and Foden ...	61	2	...	—
J. Weighell ...	45	1	...	43 8
Whitmore and Benyon ...	Failed to get samples.			
Reading Iron Works ...	53	47	...	40 1½
E. R. and F. Turner ...	42	0	...	36 8
Robey and Co. ...	38	9	...	45 8
Ashby, Jeffrey, and Luke ...	—			
Marshall and Co. ...	37	12	...	82 4
Woods, Cocksedge, and Warner ...	37	1	...	21 9
John Tye ...	51	0	...	Broke down.
Riches and Watt ...	12	12	...	18 8

At Bury St. Edmund's it will be remembered Turner and Co. carried off the £9 prize for mills, John Tye the second prize of £6, while Ruston and Proctor were highly-commended.

THE CHAFF-CUTTER TRIALS.—The first entered by T. Sheen was not tried.

E. Page and Co., Bedford, a machine, 12-inch, fitted with three knives, reversing gear, cuts four lengths of chaff; cut 42lbs.

Thomas Alcock, of Ratcliffe-on-Trent, an improved chaff cutter, price £13, with three knives, for steam or water power, of immense strength, simple in construction, cutting two lengths without change of wheels, has a 13-inch mouth with reverse and stop motion and toothed rollers; cut 79½lbs. in three minutes.

Robert Maynard, of Cambridge, a patent portable steam power sifting chaff engine, price £45; if fitted with caving elevator, £4 extra; 89lbs.

Richmond and Chandler, of Salford, a machine identical in principle to that which obtained the first prize of the Royal Society at Bury St. Edmunds, price £16 16s.; with feeding web, £1 10s. extra. The diameter of pulley was 20½ inches. After a false start, owing to error in fixing dynamometer, the machine did excellent work, maintaining its previous reputation by cutting 154lbs. although rather an irregular sample.

The next tried was one manufactured by James Cornes and Co., of Nantwich, with three knives, a self-acting mouthpiece, and stop and reverse motions, which can be fitted to cut any length required. This machine has gained the first prize of the Society for 14 years in succession, while it turned out good chaff; it only cut 98lbs. Owing to the driving band slipping, it had to begin a second lot.

James Davis and Son, of Hemel-Hempstead, next entered the list with a 10-inch cutter, price £10 10s., mounted on wood frame, fitted with toothed roller, stop and reverse gear, with change wheels, but it only turned out 28lbs. of chaff in the prescribed time.

The next machine taken out for trial was one of Mel-lard's, Trent Foundry, Rugeley, price £10 10s.; stated by the manufacturers to be an excellent machine and of immense power and capability, specially constructed for being driven by steam, change wheel, rising mouth-piece from 2½ to 5½ inches and 12½ inches wide. The result of effective feeding by three men was 68 lbs. weight of chaff.

To this succeeded the star chaff-cutter of Lewis and Hoole of Shrewsbury, described as a new implement, which received the first prize at the Royal Cornwall Agricultural Society in May. It cuts two lengths of chaff without change of wheels and is fitted with forward, stop, and reverse motions, price £12 12s., pulleys £1 6s. extra. This machine might have done better but for bad feeding and help, as it got choked and the top layer did not pass through. The result was 70 lbs.

After this followed one by Hill and Smith (Corke's pattern), of Brierley Hill, Stafford. It was objected to by some as disqualified, not being entered in the catalogue, and when put to trial soon choked, and the sample produced was not considered of sufficient importance to be weighed.

One of Carson and Tooe's, of Warminster, with stop and reverse gear for steam power, was then put on the platform. It is of a similar principle to that which carried off the prize at Canterbury in 1860, price £13 13s. It made good work in the quality of chaff cut, and turned out 78½ lbs.

Messrs. P. and W. Hobbs, of Basingstoke, next entered the lists with an improved chaff-cutter, price £12 12s., fitted with three knives, cutting two lengths of chaff, rising rollers and mouth piece, width of cut 13 inches. It choked several times, and turned out at last 54 lbs.

H. and G. Kearsley, of Ripon, tried a chaff-machine, price £10 10s., with improved tooth-rollers and rising mouth-piece, and a new stop-motion for arresting the

rollers and steel mouth-piece. This turned out a good chaff, but choked once or twice in the feeding : the result was 59½lbs.

Hunt and Pickering, of Leicester, tested a chaff-cutter, price £11 11s., which appeared to be a strong machine for one or two horse-power with two knives, all safety appliances and a solid steel mouth-piece surface. It choked in feeding, and the result of the work was 50½lbs.

Picksley, Sims, and Co., of Leigh, then went in with a new implement, price £14, combining all the recent improvements, which cuts two lengths of chaff without change of wheels, is fitted with forward, stop, and reverse motion and patent clutch gear, and is a strong and substantial machine. It has a 24-inch pulley. It was well fed, produced good chaff, and turned out 133lbs. weight.

E. H. Bentall, of Maldon, was next in rotation, with a £14 14s. chaff-cutter, cutting three lengths without extra change wheels, has stopping and reversing motions, wrought-iron legs and braces, improved tooth rollers, and mouth-pieces. It was worked by a 21-inch pulley. After a good deal of choking from over-feeding, the result was 131½lbs.

Ashby, Jeffery, and Luke, of Stamford, tried a small chaff-cutter on wrought-iron frame. Price, to cut two lengths, £9 9s. It cut 61lbs.

Joseph Warren, of Maldon, tried a large machine, price £18 18s., with a mouth 18 inches by 4 inches rise, which produced 97lbs.; but a bad sample of chaff.

A few selected chaff-cutters were then put through a second trial, being first run through empty to test by the dynamometer the power they took. T. Alcock, of Ratcliffe-on-Trent, did in five minutes 148lb. chaff. Richmond and Chandler, with a pulley 21½ diam., 267 net. This ended the trials of chaff-cutters for Tuesday.

On Wednesday morning they were resumed with James Cornes and Co.'s machine; after some delays, owing to the strap slipping, they turned out 168lbs. of chaff in the given time.

To this followed Carson and Toone's machine, doing 154lbs. of work.

Next came Picksley, Sims, and Co.'s, which being well fed, turned out 217lbs.

E. H. Bentall followed, this machine being worked by a 20-in. pulley, cut 189lbs.

The trials of these cutters were concluded by the second test of R. Maynard's, which resulted in an amount of 223½lbs. The diameter of the mouth-piece of the principal chaff-cutters was in Bentall's 15½ in., and in Richmond and Chandler's, and Picksley and Sims's 14¼ in.

If we compare the trials of the chaff-cutters at the show at Bury St. Edmunds we find that the relative competitors stood as follows. The horse-power per minute, and the number of revolutions of the dynamometer, we cannot compare, as these are not yet made known by the judges at Oxford.

The time at Bury St. Edmunds for cutting 1 cwt. of straw stood as follows :

	Min.	Sec.
Richmond and Chandler	2	35
E. H. Bentall	2	21
Picksley, Sims, and Co.	3	18
Carson and Toone	4	17
E. Page and Co.	4	42
James Cornes and Co.	2	57

The first three named took the first, second, and third prizes in rotation, while the others were commended.

The comparative power and speed of these competitors on that occasion were as follows :

	Rev of Dynam.	H. P. per Min.	Average H. P.
Richmond and Chandler	5.23	2.948	1.142
E. H. Bentall	10.28	5.794	2.466
Picksley, Sims, and Co.	12.88	7.260	2.20
Carson and Toone	12.25	6.905	1.612
E. Page and Co.	14.57	8.213	1.747
James Cornes and Co.	10.8	6.087	2.063

CAKE-BREAKERS.—Soon after midday on Wednesday the judges commenced testing the oilcake breakers and crushers. The first tried was one invented by Holmes and Sons, of Norwich, price £15, fitted with large case-hardened or steeled cutters, very strong gearing, capable for adjustment for any sized pieces, or for sowing. We failed to get the time of this trial.

Next followed Amies, Barford, and Co., of Peterborough, with their improved Royal prize mill, price £6, which took the first prize at the last trials at Bury as the best mill for power. It is all made of iron, fitted with two pairs of adjustable rollers, and will break the hardest cake into twenty different sizes for lambs, sheep, and beasts. They finished their 3 cwt. of cake in 2 min. 20 seconds; but it was crushed rather too fine for feeding, although well suited for sowing. The second trial of the machine with thinner cake was also done in the same time.

Hunt and Pickering, of Leicester, next went in with an oilcake breaker, price £6, with double rollers, adapted to reduce oil, cotton or rapecake to very small sizes for feeding purposes, also fine enough for sowing as manure. The first trial with this cake was done in 2 min. 25 seconds; the second, with thin cake, in 2 min 35 seconds.

The Reading Iron Works put in an improved breaker, price, with pulley, £6 6s., fitted with two knob or teeth-rollers, and two additional grooved rollers, for reducing the broken cake to dust. The first trial was done in 2 min. 33 seconds; the second in 1 min. 31 seconds.

Messrs. Woods, Cocksedge, and Warner, of Stowmarket, entered a cake-breaker for fourteen different sizes, price £6. A strong machine, with double rollers for breaking any description of cake in sizes varying from dust to pieces for bullocks. The first trial was done in 2 min. 30 seconds; the second in 2 min. 55 seconds.

E. H. Bentall, of Maldon, sent in a good breaker, price £6 6s., and the first test was done in 2 minutes 15 secs., but on the second trial one of the teeth flew, and hence the machine was withdrawn.

To this succeeded W. N. Nicholson, of Newark, with a strong useful £10 machine, asserted to be capable of doing a large amount of work with little power. The first trial was done in 1 minute 53 secs.; on the second the machine got out of gear, but another trial gave 1 minute 27 secs.

E. R. and P. Turner of Ipswich then produced a breaker, price £10 10s., with two pairs of adjustable rollers, by means of which any desired sample could be broken. It had an 18-inch mouthpiece, rather shallow. The first trial gave the time 1 minute 7 secs., but the dynamometer did not register well. The second 1 minute 23 secs. The first trial, with thick cake, was repeated, and resulted in 1 minute 15 secs. This terminated the proceedings of these breakers on Wednesday.

On Thursday morning the trials were resumed with a double roller breaker, price £5, of R. Mellard and Co., of Rugeley, adapted for hand or power, both sets of rollers can be regulated to break the cake to any degree of fineness; it has a receiving box and screen. The time of the trials was 1 minute 48 secs. and 1 minute

20 secs.; but as the dynamometer did not register, the second trial was gone over again, the time being then taken at 1 minute 32 secs.

To this followed a cutter made by Coleman and Morton, of Chelmsford, price £4 14s., which gained the first prize at the Paris Exhibition in 1867; alleged to be very strong, and capable of getting through much work, but did not come up to promise, as it did not carry the stuff down, the cake jumped a good deal; the two trials gave 3 mins. 39 secs. and 4 minutes 6 secs. as the relative time, while the machine choked in the second trial.

This was followed by a double-action breaker, made by Robert Maynard, of Cambridge, price £10, suitable either for steam or hand-power, and for crushing any description of cake from 1 to 3½ inches thick. This ground a coarser sample, with little or no dust. Time, 1 minute 30 secs. and 1 minute 55 secs.

Holmes and Son, of Norwich, submitted a breaker, price £15, suited for steam or horse-power, fitted with case-hardened or steeled cutters, very strong gearing, adjustable to any sized pieces, or for sowing; sample coarse, with little dust. Time, 1 minute 30 seconds and 1 minute 10 secs.

S. Corbett and Sons, of Wellington, tried a breaker with one pair of rollers, price £12. The first sample was rather coarse, the second somewhat better. Time, 1 minute 15 secs. and 2 minutes 22 secs.

Those which were considered the most effective were then submitted to a second trial, which resulted as follows:

	Thick Cake.		Thin Cake.	
	mins.	secs.	mins.	secs.
E. R. and F. Turner	1	11	1	20
Amies, Barford and Co.,	2	5	2	10

Hunt and Pickering not tried.

TURNIP PULPERS, WITH POWER.—Each was given 3 cwt. of roots to cut, and the machines were timed.

R. Hornsby and Sons, of Grantham, a patent disc root pulper, price £6 15s., pulley for power extra, took the first prize at the Bury trials. Time, 1 minute 38 seconds.

Reuben Hunt, of Halstead, a disc root pulper, price £4 10s., with eight knives. Time, 3 min. 11 secs.

Woods and Cocksedge, Stowmarket, a root-pulper for steam power, invented by Phillips, of Brandon, price £7 7s. Described by the exhibitors as a very fast pulper. Will cut up 20 tons a day; teeth easily replaced at 1d. each. Turned out a good sample, and did the three cwt. in 3 minutes 11 seconds.

R. Mellard, of Rugeley, a treble action disc root-pulper, stripper, and slicer, price £7 10s.; pulley, 7s. 6d. extra. By turning the feed-plate, either operation can be done without altering the knives. Did not work well. The feeder had to hammer down the roots, to the danger of his fingers, which got caught by the slicer. The sample was rough. Time, 3 minutes 5 seconds.

E. H. Bentall, of Maldon, put in a patent root-pulper, price £7 7s., of a make which has been in use 14 years; it is expeditious and durable, and is alleged to be the only pulper that will pulp cabbages properly. The time taken was 1 minute 40 seconds. The Judges gave the machine a second trial, which resulted in 1 minute 53 seconds time.

The same exhibitor submitted another pulper, price £5 5s., on the disc principle, fitted with eight knives, which can be regulated to pulp finer or coarser. The time taken by this machine to cut a rather coarse sample, was 1 minute 44 seconds.

Thos. Corbett and Co., of Shrewsbury, tested an im-

proved pulper, price £6, which did its work in 1 minute 15 seconds.

Picksley, Sims, and Co., of Leigh, then placed on a very strong machine adapted for power only, price £6 5s., which had a very large cutting surface, and worked by a 24-inch pulley, turned out a good sample in 1 minute 8 seconds.

Messrs. S. Corbett and Son, of Wellington, next had tested a patent root-pulper, price £6 10s.; it was worked by a 15-inch pulley; it did the work required in 57 or 58 seconds.

Messrs. Edward Page and Co., of Bradford, next brought forward an improved disc root pulper, price £5, fitted with adjustable sliding knives and other appliances, which did not work well, and took the long time of 3 minutes 25 seconds.

The next brought on the platform was one by Hunt and Pickering, of Leicester, which was a disc root pulper, price £6; a strong compact machine, for horse or steam power, stated in the catalogue to be able to pulp 4 tons an hour. This did its work in 1 minute 45 seconds, but like some others of the same class, scattered the pulp widely through the holes of the disc cover, and made rather bad work.

R. Mellard, of Trent Foundry, Rugeley, tested a disc root pulper, price £5 5s., on strong wood frame, adapted for power, fitted with 12 steel knives. It was worked by a 12 inch pulley, and did the work in 1 minute 7 seconds.

This brought the trials to a close for Thursday.

On Friday morning, a few of the principal root pulpurs were again tested by the judges, without the limit of one person feeding with roots; the owners being allowed to put in the roots as they liked. The result of the trials as to time were:

	Min.	Secs.
Hornsby and Sons	1	34
T. Corbett	0	57
Picksley and Sims	0	50

Robert Willacy, of Preston, submitted a combined machine for trial, consisting of an oilcake breaker, turnip and root cutter, and patent cattle-feeder, price £25; a very pretty-looking affair in theory, but which broke down in practice, and would not touch the turnips thrown in.

Woods, Cocksedge, and Warner, of Stowmarket, then submitted a double-action turnip-cutter for bullocks and sheep, price £5 5s., but it was very slow in action, and not much approved of; it did its work in 4 min. 14 sec.

Hunt and Pickering, of Leicester, had a £5 5s. turnip-cutter tried, which did its work in 4 min. 30 sec.

R. Hornsby and Sons, of Grantham, were the next on the list with a patent disc turnip-cutter, price £4 10s., introduced in 1861 and improved in 1866. It cuts with great rapidity, and took the first prizes at the Bury trials of the Society. It did its work in 2 min. 59 sec.

On Saturday these trials were resumed, the first tested being a machine by E. H. Bentall, of Maldon, an improved Gardner's turnip-cutter, price £5 5s. A double-action cutter for sheep and cattle, the frame of iron and the grate of wrought iron, fitted with handle so that the turnips can be taken out at the side where the person turns the machine. Time occupied in cutting 5 min. 15 sec.

The following hand pulpurs were then tried with 2 cwt. each of turnips:

Reuben Hunt's (Gardner's) double-action turnip-cutter, price £5 5s., cuts for bullocks or sheep, made with cast-iron or wood top. Time occupied 3 min. 58 sec.

The results of others tried afterwards were:

	Min.	Sec.
Carson and Toones	5	0
Southwell and Co.	8	20
R. Hornsby and Sons' pulper	5	2
Woods and Cocksedge	5	28
E. H. Bentall	6	12
Ditto, another machine	6	45
Picksley, Sims, and Co.	4	1
Corbett & Sons, Wellington	3	0
Southwell and Co.	7	6
T. Corbett, Shrewsbury	6	0
Coleman and Moreton	5	0
E. Page and Co.	9	12
Woods and Cocksedge	6	30
Hunt and Pickering	9	50

HAND CHAFF CUTTERS.—The next brought on were chaff-cutters, worked by hand power. H. and E. Kearsley, Carson and Toone, Lewis and Hoole, Mellard, and Reuben Hunt had entered, but were withdrawn.

The first tested was one by E. H. Bentall, of Maldon, price £5 15s. 6d., fitted with wrought iron legs and braces, improved tooth rollers, the gearing in the frame covered, cuts three lengths, 9¼-inch mouthpiece, cut 12lbs.

Ashby, Jeffery, and Luke, a hand-power chaff-cutter, with wrought-iron frame and angle iron legs, to cut two lengths, £3 17s. 6d., 8¼-inch mouthpiece, cut 8lb.

P. and W. Hobbs, of Basingstoke, a chaff-cutter, price £5 5s., mounted on iron frame for cutting two lengths, with rising rollers, and mouthpiece 9 inches wide; to be worked by hand-power, or attached to a 1-horse gear. This machine cut 7lb.

J. Cornes and Co., of Nantwich, a chaff cutter, price £4 15s., has self-acting mouthpiece, and cuts two lengths; is stated to have gained four of the Society's prizes; cut 5lb.

Thos. Sheen, of Aylesbury, a chaff-cutter, mounted on cast-iron frame for hand-power, with registered rollers; rising mouthpiece 3½ inches wide, to rise from 2 to 3½ inches; adapted to cut two lengths of chaff without change of wheels; work done 4lbs. only.

Hunt and Pickering, of Leicester, a machine, price £5 5s., cuts two lengths; knives run within iron frame, double universal joints in top roller shaft, no change wheels, the mouthpiece fitted with solid steel surface; this machine cut 7lbs.

Southwell and Co., of Rugeley, a machine, price £3 12s. 6d., fitted with patent lever for varying the length of cut without changing the wheels or removing the cover: has a rising mouthpiece 8¼ by 3½ inches, and powerful fly-wheel; cut 7lbs.

Hill and Smith, of Brierly Hill, had one of Corne's pattern with two knives, but as there was no pulley sent with it and no one to attend to it, it was put aside.

Lewis and Hoole, of Shrewsbury, had entered one of their Star chaff cutters, price £2 5s., but would not bring it forward.

T. Alcock, of Ratcliffe-on-Trent, had an improved chaff cutter, price £5, with two knives; cuts two lengths without change of wheels; described by the maker as simple in construction and very easy to work. This cut 6lb. weight.

Joseph Warne, of Maldon, had a small £5 5s. chaff cutter, made to cut different lengths without change of wheels, which cut 6lbs.

Edward Page and Co., of Bedford, exhibited a 9-inch chaff cutter, price £7 10s., which cuts 3 lengths, and is sufficiently strong to be worked by horse power. This cut easily 8lbs.

Smith and Grace, of Thrapston, sent in a machine,

price £5 17s. 6d., fitted with brass bearings, case-hardened mouth-piece, toothed rollers, stop and reverse motions; cuts two lengths of chaff without change of wheels; has two handles, so that two men or boys can work it. Size of month 10in. by 4in. This cut 11lbs.

Picksley, Sims, and Co., of Leigh, a new chaff cutter for hand power, price £6; combines all the recent improvements, and will cut two lengths without change of wheels; 9¼in. month. The work done was 10lbs.

Alex. Aldworth, of Abingdon, an old-fashioned chaff machine; feed drawn by sacking; roller bottom; price £4. Length of box 6ft. 6in., size of cut 14in. by 7in. Length of cut can be varied without change of wheels. Worked by one man, with a knife cutter and treadle. Although much laughter and ridicule was created by the appearance of this coffin-looking machine, yet the man turned out an excellent sample of chaff, cutting 15lbs. in 3 minutes.

Richmond and Chandler, of Salford, finished in this class with a machine, price £7 7s., constructed with an entirely new form of mouth-piece. It is impossible to choke it. Adapted for cutting two lengths without change, and 4 lengths with 1 pair of change wheels. This cut 13lbs., the highest quantity registered.

We can only indicate the comparative merit of the several implements tried, in the absence of the power used, and the revolutions shown by the dynamometer, particulars which are not to be had from the judges; still, the several facts stated will enable the public to form a very fair average idea of the duty of the different machines submitted for trial.

A little difficulty arose on Friday, in consequence of the discretionary power exercised by the judges, in calling for and testing one or two crushing mills of Messrs. Ransome, Sims, and Head, who had entered nothing for trial, a step against which Mr. R. C. Ransome protested; but the judges persisted, and stated that exhibitors had no right to withhold anything for trial, and the judges had the power, on refusal, of ordering it out of the yard. After a little discussion, Mr. Ransome handsomely gave way to the judges.

On Saturday afternoon the council held a conference with the leading implement makers as to the general nature of premiums to be awarded at Wolverhampton in 1871, and a preliminary was submitted and discussed, which will come on again for further consideration.

The following is a summary of the competitors in the trial-yard in the several classes, and some of the results:

FIXED STEAM ENGINES WITH BOILER—SECTION 1—CLASS 1.

Clayton and Shuttleworth; Robey and Co.; Riches and Watts; Ashby and Jeffery; J. Eastwood; Brown and May; Hancock and Foden; Marshall, Sons, and Co.; E. R. and F. Turner; Reading Iron Works; T. D. Eagles; Davey, Paxman, and Davey; W. N. Nicholson.

ENGINE TRIALS.—The trials of the four-horse power fixed engines gave the following results:

Ten-horse-power Engines.	Price of Engine.	Real Time.	Mechanical Time.
	£	m. s.	m. s.
E. R. and F. Turner	142	2 14	2 17
Clayton and Shuttleworth ...	240	3 6	3 23
Marshall, Sons, and Co.	130	2 36	2 42
Reading Iron Works	202	3 13	3 19½
W. S. Underhill	150	2 21	

Four-horse-power Engines.	Price of Engine.	Real Time.	Mechanical Time.
	£	m. s.	m. s.
Clayton and Shuttleworth ...	145	3 25	3 45
Riches and Watts	105	2 1½	2 9
Robey and Co.	100	2 7½	2 17
Ashby, Jeffery, and Luke ...	102	2 13	2 25
Brown and May	125	3	3 9
Hancock and Foden (with boiler)	95	1 35	1 26

SECTION 1—CLASS 2—WITHOUT BOILERS.

G. H. Ellis; E. R. and F. Turner; Clayton and Shuttleworth; Marshall, Sons, and Co.; Reading Iron Works; W. S. Underhill.

SECTION 5—CLASS 1—MILLS WITH STONE GRINDERS, STEAM OR HAND POWER.

Hancock and Foden; J. Weighell; Whitmore and Benyon; Reading Iron Works; E. R. and F. Turner; J. D. Pinfold (Compound stone and steel); Robey and Co.; Allechin and Son; Mellard's Trent Foundry; Ashby, Jeffery, and Lute; J. Tye; Marshall, Sons, and Co.; Woods, Cocksedge, and Co.; T. Baker.

SECTION 3—CLASS 2—MILLS WITH METAL GRINDERS, STEAM OR HAND POWER.

Hunt and Pickering; E. Page and Co.; E. and H. Roberts; Beverley Waggon Co.; T. Corbett; T. Thomas; S. Corbett and Son; Riches and Watts, 12½ lbs. barley, 18½ beans; Amies, Barford, and Co.; Smith and Grace.

SECTION 3—CLASS 3—MILLS WITH METAL GRINDERS, HAND POWER.

P. and W. Hobbs; Smith and Grace; E. Page and Co.; Hunt and Pickering; T. Corbett; Riches and Watts; J. Davis and Son; S. Corbett and Son.

SECTION 4—CLASS 1—CRUSHERS, STEAM OR HORSE POWER.

Amies, Barford, and Co.; E. R. and F. Turner, 90½ lbs. oats, 15½ lbs. beans; Woods, Cocksedge, and Co., 13½ lbs. oats, 25½ lbs. beans; Picketsley, Sims, and Co., 67½ lbs. oats; E. H. Bentall, 116½ lbs. oats, 84½ lbs. beans; S. Corbett and Son, 59 lbs. 7ozs. oats, 103 lbs. beans; Ransomes.

SECTION 4—CLASS 2—CRUSHERS, HAND POWER.

P. and W. Hobbs; Picketsley, Sims, and Co.; T. Corbett; E. R. and F. Turner; E. H. Bentall, 15½ lbs. oats, 18½ lbs. beans; Woods, Cocksedge, and Co., 13½ lbs. oats, 21½ lbs. beans; S. Corbett and Son.

SECTION 4—CLASS 3—STEAM OR HAND.

E. H. Bentall, 15½ lbs. oats, 8½ lbs. beans; Woods, Cocksedge, and Co., 13½ lbs. oats, 6½ lbs. beans; Picketsley, Sims, and Co.; E. R. and F. Turner; Beverley Waggon Co.

SECTION 4—CLASS 4—HAND POWER.

Picketsley, Sims, and Co.; Richmond and Chandler; Woods, Cocksedge, and Warner; E. H. Bentall; E. R. and F. Turner; Ransomes, Sims, and Head, tried by judges, but not entered.

SECTION 5—CLASS 1—CHAFF CUTTERS—STEAM OR HAND POWER.

E. Page and Co.; T. Alcock; Lewis and Hoole; R. Maynard; Richmond and Chandler; J. Cornes and Co.; Davis and Son; Mellard's Trent Foundry; Hill and Smith; P. and W. Hobbs; H. and G. Kearsley; Hunt and Pickering; Picketsley, Sims and Co.; E. H. Bentall; Ashby, Jeffery, and Luke; J. Warren.

SECTION 5—CLASS 2—HAND POWER.

Quantity cut in 5 min.

E. H. Bentall, 12 lbs.; Ashby, Jeffery, and Co., 8 lbs.; P. and W. Hobbs, 7 lbs.; J. Cornes and Co., 5 lbs.; T. Sheen, 4 lbs.; Hunt and Pickering, 7 lbs.; Southwell and Co., 7 lbs.; Hill and Smith; T. Alcock, 6 lbs.; J. Warren, 6 lbs.; E. Page and Co., 8 lbs.; Smith and Grace, 11 lbs.; Picketsley, Sims and Co., 10 lbs.; A. Aldworth, 15 lbs.; Richmond and Chandler, 13 lbs.

SECTION 6—CLASS 1—OILCAKE BREAKERS—STEAM OR HAND POWER.

Holmes and Son, 1 m. 30 s. 1 m. 10 s.; Amies, Barford, and Co., 2, 2.20; Hunt and Pickering, 2.25, 2.35; Reading Iron Works, 2.33 1.31; W. N. Nicholson, 1.53 1.27; Woods, Cocksedge, and Warner, 2.30, 2.55; E. H. Bentall, broke

down; E. R. and F. Turner, 1.15, 1.23; Mellard's Trent Foundry, 1.43, 1.32; Picketsley, Sims, and Co.; Coleman and Morton, 3.39, 4.6; R. Maynard, 1.36, 1.55; S. Corbett and Son, 1.15, 2.22.

SECTION 6—CLASS 2—OILCAKE BREAKERS—HAND POWER.

Reading Iron Works; Coleman and Morton; E. Page and Co.; R. Willacy; Woods, Cocksedge and Warner; Hunt and Pickering; Ashby, Jeffery, and Co.; Lewis and Hoole; Southwell and Co.; S. Corbett and Son; P. and W. Hobbs; Picketsley, Sims, and Co.; T. Corbett; R. Hunt; Haslam and Clark; Mellard's Trent Foundry; W. N. Nicholson; E. R. and F. Turner; E. H. Bentall.

SECTION 7—CLASS 1—TURNIP AND ROOT CUTTERS.

R. Wallacy, broke down; Hunt and Pickering; Woods, Cocksedge, and Warner; Binnie, Dayer, and Co.; Hornsby and Sons; T. Corbett and Son; E. H. Bentall; Mellard's Trent Foundry; Lewis and Hoole; H. and G. Kearsley; R. Hunt; Carson and Toone; Southwell and Co.

SECTION 7—CLASS 2—ROOT PULPERS.

Lewis and Hoole; Southwell and Co.; Hornsby and Sons, 1.38 1.34; R. Hunt, 3.11; Woods, Cocksedge, and Warner, 3.11; Mellard's Trent Foundry, 3.15; E. H. Bentall, 1.40 and 1.53; T. Corbett, 1.15 and 57 sec.; Picketsley, Sims, and Co., 1.8 and 50 sec.; S. Corbett and Son, 59 sec.; E. Page and Co., 3.25; Hunt and Pickering, 1.50; R. Millard, 3.15.

SECTION 8—STEAMING APPARATUS.

W. N. Nicholson; Amies, Barford, and Co.; V. Barford.

Hunt and Pickering, of Leicester, had an improved breaker, price £3 10s., which had received a prize from the Society. It was adapted for breaking nine different sizes. It took 9½ min. time in breaking half-a-cwt. of cake.

Southwell and Co., of Rugeley, a breaker, price £3 3s., adjustable by a simple contrivance to break six different sizes, mouthpiece 1¼ by 2½ in., convertible into a hopper. Wheels entirely covered, to prevent accident. Time of working 7 min. 45 sec.

S. Corbett and Son, of Wellington, a breaker, price £3 10s. Made good work. Two trials gave respectively 4 min. 25 sec. and 4 min. 20 sec.

T. Corbett, of Shrewsbury, a similar machine, price £3 10s., adapted for breaking six different sizes. Time 5 min. 45 sec.

E. R. and F. Turner, of Ipswich, a double action breaker, price £4 15s., for cutting for beasts, sheep, and lambs. Time 6 min. 9 sec.

E. H. Bentall, Maldon, a breaker, price £3 3s., equally adapted for cutting several sizes of cake. Time 7 min. 50 sec.

Amies, Barford, and Co., an oilcake mill, £3 10s. Can be worked by a strong lad, and will break the hardest cake into eight sizes, for sheep and beasts. Time of two trials 4 min. 48 sec. and 4 min. 56 sec.

Mellard's Trent Foundry, Rugeley, an improved oilcake breaker, price £2 15s., fitted with eccentric motion to regulate the distance between the breakers. Time 4 min. 35 sec.

A few other breakers were subsequently put under trial. The following were the awards to oilcake breakers worked by hand-power: Amies, Barford, and Co., £6; Mellard's Trent Foundry, £4; Corbett and Son, commended.

Among the sets of horse gear tried were four sets by Reuben Hunt, of Halstead, ranging in price from a pony gear of £6 10s. up to £15.

Three from the Reading Iron Works, from £7 7s. to £11, the latter price being for a patent safety gear. The whole machinery being self-contained, no accident can happen to persons or machinery. The dust and wet being excluded, there is no waste of oil or grease.

Three made by Thomas Baker, of Compton, Newbury, price from £12 to £15 10s.

Two sets of gear work, with intermediate motion, by E. R. and F. Turner, Ipswich, £7 7s. to £11.

One by Robert Boby, of Bury St. Edmunds, price £12 12s.

One by Henry Denton, of Wolverhampton, £12.

Two by E. Cambridge and Co., of Bristol, £11 10s. to £12 10s.

Two by Coleman and Morton, of Chelmsford, £11 10s. and £15.

A one-horse power and a two-horse power gearing, by Hunt and Pickering, of Leicester, same price as last-named.

One one-horse and one two-horse gear, price £11 10s. and £16, by Richmond and Chandler, Salford.

A two-horse power gear, works of iron, by Brown and Maude, of Shrewsbury, price £12 10s.

A one-horse and a two-horse gear, by Holmes and Sons, of Norwich, price £9 and £13.

One, price £11, made by R. Hunt, of Earl's Colne, but exhibited by Haslam and Clark, of Henley.

Seven sets, by Woods, Cocksedge, and Warner, of Stowmarket, from £8 8s. up to £17 17s.

Two, by Ashby, Jeffery, and Luke, of Stamford, £11 11s.

An improved horse-power works, price £12, made by Mellard's Trent Foundry, Rugeley.

One-horse and two-horse power gear, by T. Corbett, Shrewsbury, price £13 10s. and £15 10s.

A two-horse gear, price £17, by Williamson Brothers, of Kendal.

A two-horse gear, price £10 10s., by John Weighill, of Pickering.

A two-horse gear, £14, and a three-horse gear, £24, by Davis and Son, of Hemel Hempstead.

We enumerate these principally to show the variable range of prices as put forth by different makers.

In the trials of the bone-crushing mills, the Beverley Iron and Waggon Company, with their Bury St. Edmund's first prize double roller mill, price £210, with a pressure of 25lb., crushed in 6 minutes 10 secs. 1 qr. 23lbs. to dust.

The single roller mill of the same firm, price £85, also a prize mill of the Society, turned out in 5 minutes, 3 qrs. 5lbs. of $\frac{1}{4}$ -inch, 3 qrs. 25 $\frac{1}{2}$ lb. of $\frac{1}{2}$ -inch, and 3 qrs. 6lbs. of rough.

W. Crosskill and Sons, of Beverley, tried their single roller mill, price £90, which delivered in 5 minutes, 1 qr. 18lb. dust, 1 cwt. and 26lb. of $\frac{1}{2}$ -inch, and 1 cwt. 1 qr. 15 $\frac{1}{2}$ lb. rough.

The Beverley Company received two prizes of £9 and £6 respectively, and the other Beverley house, £5.

FIXED STEAM-ENGINES OF 4-HORSE POWER.

£9 Clayton and Shuttleworth.

£6 Brown and May.

£5 Reading Iron Works Company.

Marshall and Co. highly commended.

Robey and Co., and Davey, Paxman, and Davey commended.

The correct running mechanical times were :

	Min.	Secs.
Clayton and Shuttleworth.....	3	45
Brown and May.....	3	9
Reading Iron Works Company.....	3	1
Marshall and Co.	2	26
Robey and Co.	2	22 $\frac{1}{2}$

FIXED ENGINES ABOVE 4-HORSE POWER AND NOT EXCEEDING 10-HORSE POWER.—Clayton and Shuttleworth and Reading Iron Works Co., equal £11 5s. each; Marshall, Sons, and Co., £7 10s. Time: Clayton, 3 min. 23 secs.; Reading Iron Works Co., 3 min. 19 $\frac{1}{2}$ secs.; Marshall and Co., 2 min. 24 secs.

The rule was that steam should be got up; and then, each stoker being provided with a certain amount of

Llangennech coal, was left to make the most he could of his engine, which was connected by a driving-strap to a force-register or friction-break, beneath the shed, some thirty feet distant. Each engine had been previously tested up to about double the pressure at which it was proposed to be driven, the working pressure of steam when on trial not exceeding 50lbs. per square inch. The judges, in adjudicating on the engine, in addition to the quantity of fuel used in maintaining the lifting powers, took into calculation the facility of access to the working parts, the simplicity of construction, probable durability, and prime cost. By this means, the most complete decision was arrived at in the interest of the purchasers of these expensive pieces of machinery.

For the class of mills with metal grinders, for grinding agricultural produce for feeding purposes by hand power, the £10 prize was withheld by the judges.

In the class of root-pulpers Pickley, Sims, and Co., of Leigh, were highly commended for their pulper worked by steam-power; and T. Corbett, of Shrewsbury, and S. Corbett and Sons, of Wellington, commended for their hand-power pulpers.

Steaming apparatus for preparing food for stock: Amies, Barford, and Co., £12 for their portable apparatus for farm use, price £26 10s., and £8 prize for a similar apparatus, but with smaller pans, price £23 10s.; it will steam inferior hay at 3d. per ton, and potatoes at 6d. per ton.

For churns worked by hand-power, £4, to Robert Tinkler, of Penrith, for a churn price £4 15s.—will make 1lb. to 30lbs. butter.

£3 10s. to George Hathaway, of Chippenham, for a barrel churn with newly invented stoppers and improved beaters; sold at £6.

£2 10s. to Thomas Bradford and Co., London, for a mid-feather churn; to make up to 25lbs.

The hexagon 8 gallons eccentric churn of Thomas and Taylor, of Salford, to make from 2lbs. to 24lbs. of butter, price £3 10s., was highly commended as handy for very small farms.

Churns worked by any other power: £4 10s. to Robt. Tinkler, for a churn for large dairies, price £6 5s., which will make from 6lbs. to 120lbs. of butter.

£3 to Robinson and Richardson, of Kendal, for a churn, price £6 15s., capable of making up to 30lbs. of butter.

£2 10s. to Thomas Bradford and Co., of London, for a churn, price £8 10s., fitted for steam, horse, or water-power, and to churn up to 1 cwt.

In the class of cheese tubs the judges withheld £7 of the amount offered.

In the class of guano-breakers the prize of £20 was withheld for want of merit.

Flax-breaking machines: John E. Hodgkin, West Derby, £6 for a flax-breaker, for steam or horse-power, and £4 for a machine for hand-power.

Draining tile machinery: £8 to J. D. Pinfold, of Rugby, for his improved power machine, which received the Society's prize at Leicester. It will make 10,000 bricks, or 15,000 draining pipes a day.

£7 to J. Whitehead, of Preston, for his hand machine.

Edward Page and Co., of Bedford, commended for their double end machine, suited for steam-power. One of the ten silver medals to be awarded was withheld by the judges.

The following are the judges' awards for the horse gear:

Class 1.—One-horse gear, Woods, Cocksedge, and Warner, Stowmarket, first prize, £5; Richmond and Chandler, Salford, second, £2 10s.; Reuben Hunt, Halstead, third, £2 10s. Hunt and Pickering, Leicester,

highly commended. Coleman and Morton, Chelmsford, Thomas Corbett, Shrewsbury, and the Reading Iron Works, commended.

Class 2.—Two-horse gear, Woods, Cocksedge, and Warner, first prize, £5; E. R. and F. Turner, Ipswich, second, £2 10s.; Richmond and Chandler, third, £2 10s. Reuben Hunt, Mellard's Trent Foundry, Rugeley, and Coleman and Morton, highly commended. Woods and Cocksedge, T. Corbett, and Williamson Brothers, Kendal, commended.

We now proceed to give some notice of the principal exhibitors in the implement yard, although this must necessarily be restricted, for space would fail us to give anything like even an enumeration of the number of stands. Every year adds to the magnitude of the show yard, and unfortunately the integrity and speciality of the purely agricultural element of the implement yard are more and more departed from, rendering it too much of a huge bazaar filled with heterogeneous miscellaneous articles which have little or no connection with the farming interest. This extension of the outside element tends to swamp the true agricultural implement makers, who devote enormous expense to a due representation at the Society's meeting, and whose objects are in one direction the main interest and support of the show.

Murray and Co., of Banff, exhibit some good double-furrow ploughs, which have been successful this year in competitive trials in Scotland: several of these embody new improvements, and one, a combined double-furrow plough and subsoiler, received high commendation from the judges. The front plough can be removed and a subsoil body attached, which stirs up the bottom of the previously cut furrow 5 to 8 inches deep, and the back plough following turns the next furrow on to it; thus all treading upon the newly-loosened subsoil is avoided, leaving the bottom free to drain off the surface water and to be operated upon by the frost and air. They also show a new land roller, jointed so as to follow the inequalities of the land.

Hornshy and Sons, of Grantham, have a varied collection of implements, including turnip cutters and root pulpers, thrashing machines, steam engines, ploughs, drills, mowers, and reapers. Their patent Governor self-raking reaper attracted much attention among practical men, by the simplicity and efficacy of the foot-board, by which the driver can throw the machine in and out of gear. The knife being held down by a slide-box prevents its being broken by the high speed at which it runs. The Progress reaper of this firm is the same in principle, but with a different raking apparatus. It is light and compact, with great strength, and took less draught than any machine tested at Manchester. Their Paragon mower, which took the first prize at Manchester, is different in arrangement to any existing machine. The joint of the finger bar being made to act direct upon the crank in travelling over inequalities of land, no friction takes place. It will work when turned-up for travelling, and crop at the side of a hedge. It gained the first prize in competition recently in France. The Manchester mower is lighter in construction than the Paragon. It is peculiarly adapted for cutting difficult crops on uneven as well as level land. The gearing being placed on the opposite side of the machine, gives greater facilities for throwing it in and out of gear. The Premier reaper, which gained the first prize at Manchester, is used either for one or two horses, with attachment for delivering side sheaf, side swathe, or back sheaf, and is very light in draught. It will be remembered that this firm has carried off the highest awards for turnip and root cutters and pulpers. Their cutter is different in the arrangement of the knives to any other made,

every knife being set in such a position that no wedging of the roots is possible, no two knives being set opposite to the other. The whole of the knives on one side may be removed bodily by taking out three bolts. As every knife can be readily got at, a new one can be put in if required by the most simple farm labourer. The number of teeth round the outside of the disc prevents the last piece from dropping through, and it is brought up again into the hopper where the other roots press it forward through the knives, as there is no other exit. In these root pulpers which carried off the first prize for steam power pulpers and the only prize for hand pulpers, each steel, diamond-pointed knife is fastened separately with an iron wedge, and the hopper holds the roots in position for being cut. The oscillating cleans the cutters and renders the machine simple and easy to work. Their adjustable corn screen, with efficient blower and improved dressing apparatus, was highly commended by the judges. It is somewhat similar to that which obtained the Society's prize at the Bury meeting. A fine riddle may be used for peas and such like. The screen is capable of opening and closing to suit various sizes of corn. The difficulty hitherto in making a combined blower and dressing machine has been that the hopper required the whole breadth of the machine to distribute the corn well in front of the blast, necessitating in many cases a change of hopper; here it is simply done by removing the plate and bringing it inside the riddle case. Corn and seed drills, ploughs, &c., and many other useful machines and implements are also shown on their stand.

On J. Fowler and Co's. stand we have 3, 4, 5, 6, and 8-furrow balance ploughs, subsoil cultivators, and turning cultivators, with 5, 9, or 11 tines, as may be required. The 12 and 14-horse engines, and the cultivators they draw, are coming into somewhat extensive use at home and abroad. Two of these, made for the Khedive of Egypt are shown, whilst there are two of 30 nominal horse-power, but capable of working up to a pressure of 100 or 120 pounds, which would give them a power of between 70 and 80 horses each. These monster engines have been made for Mr. R. Campbell, of Buscot Park, near Faringdon, who has had a similar pair in use for nearly twelve months. They are intended to prepare land to the depth of three feet for the growth of sugar-beet, of which Mr. Campbell has about 2,000 acres under culture. The cost of these engines, with a complete set of cultivators and apparatus, is nearly £2,500. We also noticed several of Pirie's double-furrow ploughs, besides a couple of 8-horse power traction engines. This double-furrow plough, which was considered a remarkable novelty at Leicester two years ago, has been outstripped since. It is carried on three wheels, which work in a diagonal position, and draw towards the soil to be cut and turned while at the headlands. The shares are raised clear of the ground by the application of a lever.

Thomson, of Edinburgh, shows a kind of omnibus road steam engine, which was highly commended by the judges. It is completely under the control of the driver, and, like Aveling and Porter's engines, will turn within a circle of a few feet in diameter. Its chief novelty, however, consists in the tire of each wheel having around it a band of indiarubber. This band varies from 4 to 6 or more inches in thickness, according to the weight of the engine, and it is shod with flat bars of iron an inch or so thick and about three inches in width. By this arrangement a large grip is obtained from the rubber yielding to the weight of the engine, and being formed into a flat surface of some length on the road, while the shoe protects the rubber from being cut by stones. The "shoe," in the form of these flat lengths of

iron bar, is held together by an endless chain being fastened to the ends of the bar on each side of the tire. An 8-horse power road steamer, weighing six tons, drawing a load of 18 tons, will consume 48lbs. of coal per mile on good level roads; on very hilly roads the consumption may rise to 96lbs. per mile.

Ransomes, Sims, and Head, of Ipswich, occupy a very large space with samples of all the varied implements and engines for which their firm is so well known. Among these is Jeffery's double-furrow plough, fitted with an apparatus for taking the plough out of work, and turning it easily at the headlands; the depth can be regulated as it proceeds. Then they have another double-furrow plough, which appears to be the only two-wheel plough that carries the weight in the centre of the implement. It is adapted to plough from 3 to 7 inches deep, and can be readily adjusted to take two furrows, each from 8½ to 10 inches wide. It can do deep work, angular work, or match work. There are also shown ploughs, fitted with Woofe's patent disc cutter for pulverising the soil, and patent presser for preventing the hollowness common to all rectangular furrows. This takes no more power than an ordinary plough. Then there are special ploughs, suited for use in Cheshire and Lancashire, and for the Eastern Counties; turn-wrest ploughs for hill-side ploughing or for level land; horse-rakes, harrows, haymakers, the latter double-speeded, fitted with a fast backward, instead of the usual overhead motion, for scattering, and a slow backward motion for turning the hay. These, with corn screens, thrashing-machines, and a host of lawn-mowers, for hand-use or for horse-power, ranging from 8 inches wide to three feet, constituted the principal articles. We must not omit to mention, however, that they also show a three-furrow plough, to supply the demand if such ponderous implements are likely to come into use.

Picksley, Sims, and Co. (Limited), of Leigh, a firm which has come out so successfully in all the competition trials for which its machines were entered, had on its stand a large and varied display of corn and lin-seed crushers, chaff-cutters, cake-breakers, turnip-slicers and pulpers, horse-rakes, combined mowers and reapers, and other useful articles. Their strong standard combined mower and reaper has a patent sliding double-gear arrangement, which allows of the finger-bar and knives being projected 6 inches outwards clear of the frame-work in reaping, without removing the pole. By the removal of a single bolt the speed is altered to fast for mowing and slow for reaping. In the manufacture of chaff-cutters they rank, perhaps, next to Bentall's in the quantity turned out, and are also well known for their root-pulpers, cutters, and mills, ranging from all prices.

J. and F. Howard, of Bedford, maintain their high reputation by the implements shown on this occasion. They exhibit their steam cultivation machinery. In one set the engine is fitted with a steam force-pump, available in case of fire or for irrigation. Steam harrows, subsoilers, and drills are also among their implements, besides innumerable ploughs, from the most cheap and simple to the most effective and complete forms. And there is also their three-furrow plough, which, it is said, can be worked by three horses on light land. A seat is provided for the ploughman, and a steering lever, which enables him readily to guide the implement. The self-acting horse-rake, which received a silver medal from the judges here, has been designed to meet the demand for a self-relieving rake, in order to reduce the manual labour required to raise the teeth, and relieve the rake of its load. The advantages of the Howard safety-boiler, of which there are about 8,000 already in use in England, are

stated to be the freedom of risk from explosion, economy of fuel, perfect circulation of the water, ready means of removing sediment, simplicity of parts, economy of space, and facility in transport and setting. It can work up to 140 or 150 lbs. pressure.

Tuxford and Sons, of Boston, have nine steam-engines on the ground, including horizontal, portable, steeple, and traction engines. The steeple engines are of great durability, and calculated to stand the roughest work, either in the yard or the field. They also show several combined thrashing machines, straw elevators, and specimens of Appold's centrifugal pumps, adapted to discharge from 150 to 1,400 gallons per minute.

The Reading Iron Works (Limited) have an extensive show, comprising a large amount of heavy machinery. Their four-horse and eight-horse fixed engines we have already spoken of in the competition trials. Horse-gear, thrashing machines, crushing mills, &c., are some of the specialities of this company. In the lock-lever horse-rake a great improvement has been made in the fastening of the teeth, which are adjusted to rise and fall according to the inequalities of the ground. In a cheap barley hummeler for hand power, which received the first prize at Worcester, the grain passes through a cylinder, with a wire screen at the bottom, in which revolves a spindle fitted with steel blades.

Woods, Coaksedge, and Warner, of Stowmarket, show a large variety of machines and implements. Their horse gear carried off the first prize in both classes for one and two-horse gear; some of those exhibited are adapted for working machines requiring either fast or slow speed; others for a pony to work a small chaff-cutter, mill, or for pumping, while some are mounted on travelling wheels to move about from farm to farm, and suitable for working elevators in harvest time. This firm also supplies mills, pulpers, root-cutters, carts, and other farm necessities.

Amies, Barford, and Co., of Peterborough, competed with a number of their corn-grinding mills, and took the first prize in the class of mills with metal grinders; also a first prize for their oilcake breakers; two for their steaming apparatus, two silver medals, and one high commendation in the miscellaneous articles. They had on their stand a large number of clod crushers, land pressers, garden rollers, and water-ballast rollers, up to three tons in weight when full. Some improved flour-dressing machines were also shown.

Ashby, Jefferys, and Luke, of Stamford, exhibited many varieties of haymakers, suitable for small occupations and for light or heavy crops; chaff cutters, sets of horse gear, cake breakers, horse rakes, and portable steam engines.

The Bristol Waggon Works Company (Limited) had on the ground a most extensive collection of agricultural carts and farm waggons, ranging from various prices. Among them was one fitted with Capt. Stephens' patent endless rails, for soft and marshy land, preventing the wheels sinking and making ruts. Drills, sheep racks, horse rakes, winnowers, and other useful articles completed their show.

E. H. Bentall, of Maldon: The reputation of this maker has been long maintained for the utility and effectiveness of his crushers, chaffcutters, cakebreakers, turnip cutters and pulpers, and his stand contained an extensive assortment of machines of his make.

The stand of E. Cambridge and Co., of Bristol, was principally noticeable for its rollers and clod-crushers, chain-harrows, some portable engines and horse-gear.

Reuben Hunt, of Halstead, had some useful horse gear, oilcake breakers, root-cutters, and pulpers, and we especially noticed an improved clover and trefoil seed draw-

ing machiuc, which will thrash and dress these with the same barrel in a very effective manner, removing the horny husk of trefoil, and the leathery pods of clover.

R. Roby, of Bury, excels principally in screens, although some haymakers and drills were shown. A small chaff screen, for use in a corn-merchant's office, attracted attention, by which may be readily ascertained what the samples will be when screened.

John Baker, of Wisbeach, exhibited a dozen varieties of his dressing and screening machines for cleaning and separating all kinds of grain and seeds for market.

The Beverley Iron and Wagon Company (Limited) had a very fine display of implements, among which were compound action grinding mills, bone mills, turnip cutters, prize carts and cart wheels, prize rollers and clod crushers, and portable farm and railway trucks. The one-horse reaping machine, with patent screw manual sheaf delivery, which was first shown at the Smithfield Show, received high commendation on this occasion from the implement judges. It has the advantage of a change wheel which the revolving machine has not. It is remarkably light and simple, and fitted with Norfolk's patent self-acting tipping platform to suit various crops, reduces labour, and ensures uniform sheaves.

HONORARY DIRECTOR OF THE SHOW AND GENERAL ARRANGEMENTS :

Mr. B. T. Brandreth Gibbs, Half-moon Street, Piccadilly, London.

STEWARDS OF IMPLEMENTS :

Sir A. K. Macdonald, Bart., Woolmer Lodge, Liphook, Hampshire.

Lieut.-Col. Wilson, Stowlangtoft Hall, Bury St. Edmunds.

Mr. Chandos Wren Hoskyns, M.P., Harewood, Ross.

Mr. W. J. Edmonds (Steward Elect), Southrop House, Lechlade.

JUDGES OF IMPLEMENTS.

Fixed Steam Engines, Horse Gears, and Steaming Apparatus :

F. J. Bramwell, C.E., 37, Great George-street, London.

E. A. Cowper, C.E., 6, Great George Street, London.

Mills, Crushers, and Coprolite Mills :

H. Caldwell, Monkton Farleigh, Bradford-on-Avon.

H. Stephenson, Throckley House, Newcastle-on-Tyne.

John Ogilvie, Mardon, Coldstream, N.B.

Chaff-cutters, Oilcake-breakers, Turnip-cutters, and Guano-breakers :

John Hemsley, Shelton, Newark.

Matthew Savidge, Sarsden Lodge Farm, Chipping Norton.

Henry Cantrell, Baylis Court, Slough.

Bone Mills, Flax-breaking Machines, Tile Machinery :

John Thompson, Badminton, Chippenham.

J. W. Kimber, Tubney Warren, Abingdon.

G. M. Hipwell, Elmore Lodge, Sutton, Surrey.

Dairy Implements :

J. K. Fowler, Prebendal Farm, Aylesbury.

George Jackson, Tattenhall Hall, Chester.

Gilbert Murray, Elveston, Derby.

Draining Tools and Miscellaneous Awards :

F. Sherborn, Bedford, Middlesex.

John Hicken, Dunchurch, Rugby.

John Wheatley, Neswick, Driffield.

PRIZES FOR IMPLEMENTS.

FIXED STEAM ENGINES.

Four-horse power, with boiler combined.—First prize, £9, Clayton and Shuttleworth; second, £6, Brown and May; third, £5, Reading Iron Works Company. Highly commended: Marshall, Sons, and Co. Commended: Robey and Co., and Davey, Paxman, and Davey.

Above four-horse power and not exceeding ten-horse power, to be worked by an independent boiler.—Clayton and Shuttleworth and Reading Iron Works Company (equal), prize of £11 5s. each; third, £7 10s., Marshall, Sons, and Co.

HORSE GEARS.

Gears for one horse.—First prize, £5, Woods, Cocksedge, and Warner, Stowmarket; second, £2 10s., Richmond and Chandler, Salford; third, £2 10s., Reuben Hunt, Halstead. Highly commended: Hunt and Pickering, Leicester. Commended: Coleman & Morton, Chelmsford; T. Corbett, Shrewsbury; and the Reading Iron Works.

Gears for two horses.—First prize, £5, Woods, Cocksedge, and Warner; second, £2 10s., E. R. and F. Turner, Ipswich; third, £2 10s., Richmond and Chandler. Highly commended: Reuben Hunt, Mellard's Trent Foundry, and Coleman and Morton. Commended: Woods and Cocksedge, T. Corbett, and Williamson Brothers, Kendal.

MILLS.

Mills, with stone grinders, for grinding agricultural produce into meal, by steam or horse power.—First prize, £8, J. Weighell, of Pickering; second, £7, E. R. and F. Turner, of Ipswich; third, £5, Marshall, Sons, and Co., of Gainsborough. Commended: Reading Iron Works Company, and Smith and Grace, of Thrapston.

Mills with metal grinders, for grinding agricultural produce for feeding purposes, by steam or horse power.—First prize, £8, to Amies, Barford, and Co., Peterborough; second, £7, T. Corbett, of Shrewsbury; third, £5, E. and H. Roberts, of Deanshanger.

Mills with metal grinders, for grinding agricultural produce for feeding purposes, by hand power.—The judges did not recommend any award in this class.

CRUSHERS.

Corn crushers by steam or horse power.—First prize, £6, Ransomes, Sims, and Head, of Ipswich; second, £5, E. H. Bentall, of Maldon; third, £4, Woods, Cocksedge, and Warner, of Stowmarket. Commended: E. R. and F. Turner, of Ipswich.

Corn crushers by hand power.—First prize, £6, E. H. Bentall, of Maldon; second, £4, Woods, Cocksedge, and Warner, of Stowmarket.

Linseed crushers by steam or horse power.—Prize of £5, E. R. and F. Turner, Ipswich.

Linseed crushers by hand power.—First prize, £6, E. R. and F. Turner, Ipswich; second, £4, Woods, Cocksedge, and Warner.

CHAFF-CUTTERS.

Chaff cutters to be worked by steam or horse power.—First prize, £10, Richmond and Chandler, Salford; £5, Picksley, Sims, and Co., Leigh; £5, E. H. Bentall, Maldon (bracketed equal). Highly commended: Carson and Toone, Warmminster. Commended: J. Cornes and Co., Nantwich; T. Allcock, Ratcliffe-on-Trent.

Chaff cutters to be worked by hand power.—First prize, £6, Richmond and Chandler, Salford; second, £4, Picksley, Sims, and Co., Leigh. Highly commended: Smith and Grace, Thrapston; E. H. Bentall, Maldon.

OILCAKE BREAKERS.

Oilcake breakers, for large and small cake, to be worked by steam or horse power.—First prize, £6, Amies, Barford and Co., Peterborough; second, £5, E. R. and F. Turner, Ipswich; third, £4, Hunt and Pickering, Leicester.

Oilcake breakers, for large and small cake, to be worked by hand power.—First prize, £6, Amies, Barford, and Co.; second, £4, Mellard's Trent Foundry. Commended: S. Corbett and Son.

TURNIP CUTTERS.

Turnip and root cutters.—First prize, £7, R. Hornsby and Sons; £4, Hunt and Pickering; £4, R. Hunt (bracketed equal).

Root pulpers.—First prize, £7, R. Hornsby and Sons (for steam or horse power); second, £4, Picksley, Sims, and Co. (for steam or horse power); third, £4, R. Hornsby and Sons (for hand power). Highly commended: Picksley, Sims, and Co. (for hand power). Commended: T. Corbett (for steam power); S. Corbett and Son (for hand power).

STEAMING APPARATUS.

Steaming apparatus for the preparation of food for stock.—First prize, £12, and second prize, £8, Amies, Barford and Co.

DAIRY IMPLEMENTS.

Churns worked by hand power.—First prize, £4, R. Tinkler; second, £3 10s., G. Hathaway; third, £2 10s., T. Bradford and Co. Highly commended: Thomas and Taylor. Commended: Richardson and Robertson, and W. Waide.

Churns worked by any other power.—First prize, £4 10s., R. Tinkler; second, £3, Robertson and Richardson; third, £2 10s., T. Bradford and Co.

Cheese tubs.—Prize, £3, Mellard's Trent Foundry. The judges withheld the balance of the amount offered for this class.

Cheese presses.—First prize, £4 10s., Southwell and Co., Rugeley; second, £3, Mellard's Trent Foundry, Rugeley; third, £2 10s., J. Cornes and Co., Nantwich.

Curd drainer, &c.—Prize, £2 10s., J. Cornes and Co.

Curd mills.—Prize, £2 10s., Southwell and Co., Cheese-turner and general collection of cheese-making apparatus.—Prize, £2 10s., Carson and Toone,

General collection of utensils for butter making.—Prize, £2 10s., Allway and Son.

BONE MILLS.

Bone mills to be worked by steam or other power.—First prize, £9, the Beverley Iron and Waggon Company; second, £6, the Beverley Iron and Waggon Company; third, £5, W. Crosskill and Sons.

GUANO BREAKERS.

Guano breakers, worked by hand power.—The prize was withheld for want of merit.

COPROLITE MILLS.

Prize of £10, E. R. and F. Turner, Ipswich.

FLAX BREAKING MACHINES.

First prize, £6, J. E. Hodgkin (for steam or horse power); second, £4, J. E. Hodgkin (for hand power).

TILE MACHINERY.

Machines for the manufacture of draining tiles.—First prize, £8, J. D. Pinfold (for steam or horse power); second, £7, J. Whitehead (for hand power). Commended: E. Page and Co. (for hand power).

DRAINING TOOLS.

First prize, £6, Hunt and Pickering, Leicester; second, £4, Clarke and Son, Brackley. Highly commended: F. Parkes and Co.

MISCELLANEOUS AWARDS.

SILVER MEDALS.

Amies, Barford, and Co., of Peterborough, for a portable metal corn grinding mill with dressing apparatus.

Amies, Barford, and Co., of Peterborough, for Campains' patent anchors for steam cultivation.

W. Barton, of Boston, for a cottagers' patent cooking stove, invented and made by Richards, of Wincanton.

J. and F. Howard, of Bedford, for patent self-acting appliance to horse rake.

Gilbert Murray, of Elvaston Castle, Derby, for model set of plant for cheese-making on the American factory system.

H. Pooley and Son, of Liverpool, for patent automatic grain scale, simplified from that exhibited at Manchester last year.

Robey and Co., of Lincoln, for patent self-feeding apparatus for thrashing machine, designed to prevent accidents and save manual labour.

J. and B. Sainty, of Wisbeach, for patent wood covering for temporary buildings, walls, &c.

James Sinclair, of Manchester, for chemical fire-engine called "l'Extincteur."

HIGHLY COMMENDED.

Amies, Barford, and Co., of Peterborough, for set of steam cooking apparatus.

T. Baker, Compton, Newbury, improved tumbler or tip-cart.

Wm. Ball and Son, of Rothwell, patent double-break on waggon.

Barrows and Stewart, of Banbury, improved 4-wheeled windlass for steam cultivation.

Beverley Iron and Waggon Company, Limited, double self-acting or reversible sheaf-delivery to reaping machine.

T. Corbett, of Shrewsbury, improvement in hand clover-seed barrow.

James Davey, of Eynsham, set of improved Scotch cart harness.

J. Fowler and Co., of London, 8-horse power traction engine on patent springs.

D. Hart and Co., of Wenlock Road, City Road, London, patent automatic self-acting and self-registering weighing machine for grain.

Holmes and Sons, of Norwich, improvements in corn, hay, or straw elevators.

R. Hornsby and Sons, of Grantham, combined corn-dressing and screening machine.

Thomas Hunter, of Maybole, Ayr, for Dickson's patent double drill turnip cleaner.

Thos. Mackenzie and Sons, of Dublin, for patent mower and reaper knife-grinder and rest.

G. W. Murray and Co., of Banff, for combined double-furrow plough and subsoiler.

Thos. Perkins, of Hitchin, patent folding shafts for reaping and mowing machine.

W. Rainforth and Son, Brayford Head, of Lincoln, for improved patent adjustable corn-screen.

Richmond and Chandler, of Salford, for an improved litter-cutter.

J. and B. Sainty, of Wisbeach, improved cattle crib, with iron posts and wood frames.

Southwell and Co., of Rugeley, improvement in ridging plough.

W. Smith, of Poston Lowthorpe, near Driffeld, for self-feeding sheep-rack with patent slides.

R. W. Thomason, of Edinburgh, for patent road steam engine, 8-horse power nominal.

COMMENDED.

J. P. Barford, of Banbury, for an improved carriage-lifting jack.

Henry Denton, of Wolverhampton, for improvement in a chain harrow carriage.

T. Mackenzie and Sons, of Dublin, for improvements in turnip and mangold drill.

H. J. and C. Major, of Bridgwater, for patent angularly corrugated roofing, and ridge or crest-tiles, for farm and other buildings.

J. and B. Sainty, of Wisbeach, for improvements in field and other gates; also for patent sheep fencing.

Richard Winder, of Farningham, Dartford, machine for tarring sheep-fold netting.

AGRICULTURAL SHOWS.

BY THE CROTCHETY FARMER.

I am crotchety enough to think that I have one or two crotchets upon a subject which some may and do think is quite beyond the regions of crotchets, while others, by-the-way, think it is precisely that in which crotchets abound. For example, is it a crotchet or is it not which nearly all—nay, I may as well say all, for that is simply the truth—our agricultural societies have, that what they interest themselves in and make the only features of their shows comprise all the points or subjects upon which farmers are generally interested? I am free to confess that this notion of our societies does seem to me a crotchet, and one which unfortunately exercises a very prejudicial influence upon the progress of agriculture. I think I could name half-a-dozen—probably a round dozen of subjects which are altogether ignored by our agricultural societies, never apparently dreamt of by their officials as coming within the range of useful subjects, but which nevertheless are of the greatest practical importance. I venture to say that there is not a practical man who thinks—an important concession no doubt in these days when thinking is itself deemed a crotchet, a man who ventures to think for himself being considered as equal to, if not exactly the crotchety man—I venture to say that there is not a practical man who thinks about what he is doing that has not in the course of a single season had several points brought up before him arising out of his daily practice which *he* is greatly, if not altogether ignorant of, and about which, just because he is so, he is desirous to have the authoritative expressions of other and wiser men than himself. It is in connection with our agricultural societies that such men are, and yet by reason of an unfortunate something they do not give the societies the benefit of their wisdom or experience, and this mainly because they are not asked to do so. Men are all apt to run for ever in the groove they have made for themselves, or which has been made for them, and this is especially true of corporations whether of science or of social life. Now, we think, that our great societies have been running too long in certain grooves, and the sooner they shunt off to others, the better for the societies, unquestionably the better for the farmers, and not the least benefit of going into any one new groove would be I take it that it would be seen that there would be other grooves branching out naturally from it which would lead along the lines of most interesting investigations, full of practical and suggestive truths. For example, I will walk along the alleys and round the broad beaten paths of the great yearly gathering at Oxford this year, and, unless I shall be greatly and I confess agreeably mistaken, while I find numerous examples of implements and machines and hosts of animals, I shall find nothing whatever to indicate what is the result of the working of these implements and machines, nor what are the substances upon which those countless herds and flocks are fed upon; in other words, I shall see machinery and stock, but not a vestige of the crops which these machines help to cultivate or upon which these stock are fed. Yet, why is this, that the very aim and object of a whole and ceaseless round of farming operations should have no place at all in the national gathering like that of the Royal Agricultural Society? And yet it is impossible to say that this branch of farming carries with it no points of practical importance to farmers—it on the contrary

carries many. If, indeed, this branch was taken up and prosecuted with the eagerness which other branches are prosecuted it would be found that many points are connected with it of surprising importance to the farming community. Supposing that prizes were offered for the best specimens of farm produce, the details of the mode of cultivating of which, the soils, the working of them, the mode and period of sowing, the quality of seed used—the manures and grain being also fully stated—I am crotchety enough to believe that a vast deal would be obtained of real service to farmers; and more than that, our agricultural *savans* would not fail to see that each detail of farm-work in connection with these would carry with it questions, many of which are now puzzling our best practical heads, but upon which our societies have given no authoritative utterance. Take any of the points in practice I have named above connected with the preparation of the soil—the sowing of the seed, its manuring—I will venture to put upon each and all of them a series of questions, not one of which has yet been properly, some not at all investigated by our societies, and all of which nevertheless are of the highest possible importance. We pet our stock at our shows, we make much of our implements and machines, but it apparently never enters the minds of the society authorities who do both to conceive of the possibility that taking up other branches would be the very means to show us how much there was connected with them that influenced the future both of stock and implements. Great as has been the improvement in the machinery of the farm during the last few decades, is there anyone who will venture to say that the improvement would not have been greater, much greater, had our machinists understood clearly what it was that our farmers wanted? Surely none. I have lived long enough to recollect what the agricultural machinery was at the date of the first Oxford Show, and what a difference between that show and the one now about to be held! and I have watched since then the long list of machines and implements which have been brought out, and the nearly as long list of those which have been condemned and consigned to oblivion, and yet many of which so consigned would never have been brought out at all had their inventors known what was wanted. And this knowledge might have been given to them had the societies entered upon and taken heartily up those lines of inquiry connected with the crops and cropping of the farm, which have lain for years—too long a course—and are now lying before them for investigation. Let this branch be taken up, and from it will flow a number of questions, the authoritative judgment upon which your societies will do a vast deal of good to the practice of farming.

A very interesting department of the coming show at Oxford will be what for some years has been a most interesting department—namely, the collection of seeds, manures, and feeding stuffs, and I should be surprised to find this year what I have never yet found, that these are within the pale of official recognition. With reference to the two first of these, what we have already said with reference to the crops and cropping of the farm applies more or less to them; and with reference to the feeding stuffs, I am crotchety enough to fail to see why, if the interests of the farmer are looked upon as worthy to be guarded as far as they can be guarded by official recogni-

tion of stock is concerned, they should not be guarded by the same being extended to the foods upon which they are fed. A man has some chance, and ought to have the skill, to guard himself from being taken in by the purchase of a bad beast, what chance has he of guarding himself against being taken in by the purchase of bad food? The question the reader will perceive is one of no small importance—by no means crotchety in its nature, although I know full well that it will be deemed as crotchety in having brought forward its claims to the consideration of the Society and of all societies which profess to be instituted for the benefit of and to do their work in the interests of farmers. Why are all these points overlooked? As the Yankees say, "I want to know; pray do tell;" but then who is tell me? those who should will not, and those who would like cannot. A rather crotchety dilemma, I confess, to be placed in. But the time will come when the question which should

be asked of the governing councils of our agricultural bodies will be asked of them, and will receive a reply other than we believe they would give now. The points have not as yet had their full weight with them—time shall yet be required to allow this weight to be exercised; meanwhile, it is some gratification for those interested to know that outside at least of those governing councils the subject we have only glanced at is receiving fair attention. What a journal such as this is can do in the helping on of such a movement it has for some years quietly done. So far as any advocacy of it is concerned, it may appear to some that a crotchety man can do nothing else than advocate crotchety subjects; still, in reply, I may say that you and I, good reader, have lived to see what was at one time called crotchets at another great and beneficial reforms. It may be so in the present case. That our societies have done much I heartily believe; that they can do more I no less believe.

THE THORNE AGRICULTURAL SOCIETY.

Thorne has recently held its annual carnival. There was a good show of horses for agricultural purposes, and for young draught horses the exhibition here has never been surpassed. Both carriage horses and roadsters were well represented, and in no previous year have better appeared amongst them; and though the hunters did not show in large numbers, still they were more numerous than last year. In the show of agricultural implements the number of exhibitors was in excess of former years. The entries for cattle have never at any time been large, and though there was an improvement this year there is yet plenty of scope for further advancement. Of the stock exhibited in this department the bulls preponderated. Of the sixteen shown, twelve of them were under two years old, the remaining four being aged. The judging of sheep was not at all satisfactory to the public. Not that the judges did not give perfectly honest decisions, but inasmuch as two of them were Lincolnshire men, they naturally preferred the prevailing character of their own county. Pigs, on the whole, were of first-rate quality. The only fault, if any, in this department, was the one also noticeable in the cattle and sheep—that they were not more numerously represented.

JUDGES.—Horses: G. C. Woolhouse, Wellingore, Lincoln; C. Wood, South Dalton, Beverley; W. Harper, Linley-hill, Beverley. Cattle: T. Cartwright, Dunstan Pillar, Lincoln; J. T. Havercroft, Wooton Dale, Barton; G. Smart, Aberford, York.

HORSES.

Agricultural mare and foal.—First prize, W. Bramley; second, E. Coulman.

Hunting mare and foal.—First prize, W. Pulsfordbrowne; second, T. Askren.

Carriage mare and foal.—First prize, J. Read; second, H. Cooke.

Roadster mare and foal.—First prize, W. Whaley; second, H. W. Godfrey.

Agricultural yearling or filly.—First prize, R. Fillingham; second, W. Bramley. Commended: J. Coulman.

Agricultural two-year-old gelding or filly.—First prize, H. Robinson; second, T. Duckitt. Highly commended: J. Brown. Commended: F. T. Turner and M. and A. Glew.

Agricultural three-year-old gelding or filly.—First prize, C. Lister; second, W. Banks.

Agricultural mare or gelding, any age.—First prize, W. Banks; second, J. Coulman. Commended: T. Black.

Pair of draught horses, exclusively for agriculture.—First prize, S. Thompson; second, M. Askren. Commended: M. Durlham.

Pair of draught horses, adapted for light soils.—First prize, J. Coulman; second, S. Barker. Highly commended: E. Coulman.

Hunting yearling colt or filly.—First prize, G. W. Morris; second, G. W. Morris. Commended: W. B. Houlden.

Hunting two-year-old gelding or filly.—First prize, G. Cross; second, F. J. Maw. Commended: J. S. Hill.

Hunting three-year-old gelding or filly.—First prize, H. Cooke; second, G. Cross.

Carriage yearling colt or filly.—First prize, J. Coulman; second, H. W. Godfrey.

Carriage two-year-old gelding or filly.—First prize, H. Robinson; second, M. Askren.

Carriage gelding or mare, any age.—First prize, S. Gurnell; second, J. Reader. Commended: G. Gurnell.

Roadster yearling colt or filly.—First prize, J. F. Watson; second, E. Ellis.

Roadster two-year-old gelding or filly.—First prize, J. Furniss; second, R. Maw. Commended: M. Askren.

Roadster three-year-old gelding or filly.—First prize, E. Ellis; second, T. Shearman. Highly commended: G. Wakefield.

Roadster gelding or mare, any age.—First prize, E. Winter; second, W. Stephenson.

Weight-carrying cob, any age or sex.—First prize, J. Askham; second, J. T. Blaydes.

Lady's hackney, any age or sex.—First prize, J. Cross; second, W. Duggleby, jun. Highly commended: J. Reader.

Pony, not exceeding 14 hands.—First prize, W. Axe; second, G. Gurnell. Highly commended: G. Harrison.

Pony, not exceeding 12 hands.—First prize, C. Dook; second, W. Johnson. Commended: W. Blaushard.

CATTLE.

Bull, under two years old.—First prize, J. Sunderland; second, G. Mann.

Bull, any age.—First prize, F. Frudd; second, T. J. Crowcroft. Highly commended: B. H. Brooksbank.

Bull, under two years old.—First prize, G. Hatfield; second, B. J. Whitaker. Highly commended: W. Burton.

Cow, in calf or milk.—First prize, J. Dickinson; second, T. J. Crowcroft. Highly commended: J. Dickinson.

Heifer, in calf or milk.—First prize, E. H. Marshall; second, M. Askren. Highly commended: J. H. Dean.

Pair of calves, under 18 mouths old.—First prize, W. Melhows; second, M. Askren.

SHEEP.

Long-woolled ram, any age.—First prize, R. Wright; second, J. T. Moorhouse.

Long-woolled ram, one shear.—First prize, R. Wright; second, R. Wright.

Pen of five long-woolled ewes.—First prize, J. Winder; second, W. Carr.

Pen of five long-woolled gimmers.—First prize, E. Lister; second, F. Frudd. Highly commended: J. Rishworth.

Pen of five long-woolled wedders.—First prize, W. B. Tate; second, T. Carr.

Pen of five long-woolled lambs.—First prize, T. Smith; second, G. T. Wood.

PIGS.

Boar, any breed.—First prize, W. Stephenson; second, W. Plumtree.

Sow, any breed.—First prize, G. Briggs; second, W. Maskill.

Open gilt, any age.—First prize, Z. Mande; second, G. Wagstaffe.

Three store pigs.—First prize, R. Sellars; second, T. Askren.

Cottager's pig.—First prize, G. Holgate; second, J. House; third, D. Hunter.

IMPLEMENTS.

Implements manufactured by exhibitors.—Prize, £2 2s., Messrs. Vickers, Snowden, and Morris.

Assortment of implements.—Prize, £5 5s. and the Society's medal, J. Glew, Howden.

THE IMPOVERISHMENT OF THE SOIL BY MAN.

BY CUTHBERT W. JOHNSON, F.R.S.

It is only within the last quarter of a century that the subject of this paper has attracted the public attention. This, indeed, has been induced in a great measure by the progress of sanitary efforts. When the inhabitants of crowded neighbourhoods began to awake and discern the ill-effects of living over cesspools, and allowing their noxious contents to filter into their wells, other modes of providing for the removal of sewage were adopted. Then came the time when sewers were constructed and house-drains connected with them. Then another difficulty arose, viz., the disposal of the large amount of sewage collected by the sewers. This was, as a matter of course, directed to the lowest portion of the district, and allowed to flow into an adjoining river. Then came complaints of the fouling of its waters, and legal proceedings. This rendered necessary the adoption of means for the purification and utilization of the sewage. This led to several erroneous estimates of the money value of town sewage, and these deceptive statements originated many schemes for its purification. As most of these have failed it will be useless to describe their manipulations; I propose, however to allude to two of these, which are founded on Nature's teachings, and her processes we are all aware rarely fail: I mean the dry earth, and the irrigation systems. Both these have recently been examined in a very valuable report, by her Majesty's Commissioners appointed to inquire into the pollution of rivers. And what they have so well described, I need hardly attempt to allude to in any other language.

The Commissioners (Major-General Denison, Mr. E. Frankland, and Mr. J. C. Morton), in commencing their inquiries, were impressed with the fact, that of all the live stock of our island, man was the worst as regards the manure he adds to the soil. They remark (*Report*, 1870, p. 71):

"Everyone is familiar with the idea that the fertility of a farm depends very much on the quantity of live stock kept upon it. It is, in fact, an established maxim in agriculture that, apart from the use of imported and manufactured fertilizers, the maintenance of fertility depends very much upon the live stock which the farmer keeps upon the land, and the quantity of manure which he can thus apply to it.

"The fertility of the 23,370,502 acres in the hands of English farmers is thus dependent on the 19,821,863 sheep, 3,706,641 cattle, and 1,629,550 pigs which, according to the statistical returns just issued by the Board of Trade, are kept on English farms; a number which, calculated wholly as sheep, that is, putting cattle of all ages as equal to six, pigs as equal to two, and horses equal to eight, sheep apiece, amounts in food-consuming and therefore manure-producing power to as nearly as possible two sheep per acre over the whole area of the enclosed land in England. Taking 1,141,996 agricultural horses into account, we may say that the whole farm-stock of this country is less than five sheep to every two acres in the hands of English farmers. These are the published returns for 1869. In 1868 there were in England

23,038,781 acres returned as occupied; there were 3,779,691 cattle, 20,930,779 sheep, and 1,981,606 pigs—numbers which calculated wholly as sheep amount to 47,572,137 sheep, corresponding to a very little more than two sheep per acre of the enclosed land in this country. No returns of the horses employed on farms were obtained in 1868. We give the returns of both years in illustration of the very considerable variations which take place from year to year in the farm livestock of the country, while mankind steadily increases in number every year.

"We have, however, omitted all reference to another resident animal of the greatest food-consuming power; for whose maintenance indeed all these acres and all this live stock are owned and cultivated. Nearly one-third of the live stock of this country is mankind! In 1869, there were in England 20,658,599 of 'man'; and he consumes not only the produce of all these acres, and of all these cattle, sheep, and pigs which are maintained upon them, but imported food as well, to the extent of two-fifths of the estimated quantity of our home-grown wheat, and probably one-twentieth or more in excess of our home-grown meat. A creature of such great powers of consumption ought according to all the analogies to be of corresponding agricultural value as a fertilizer. If, leaving out of consideration the products of respiration, excrement be just the food of an animal *minus* its growth, then on the ground of both these elements of the calculation, man ought to be the very best farm-stock we have. He is not only a much better fed animal than a sheep, but he takes much less out of his food. Bread and beef are better food than grass and turnips; and the growth taken out of these several rations is much less in the former case than in the latter. The population fed on bread and beef does not increase in number, and that is virtually in total weight, more than two per cent. per annum, whereas the 'population' fed on grass and turnips increases in weight at least 30 to 50 per cent. within the year. A sheep builds its whole weight of body out of the food of 18 months. The average age of man in England is rather more than 40 years, and the weight of his body at death is all that he has saved out of all the food he has consumed during the whole period of his life. On every ground, therefore, we ought to anticipate the superiority of man to sheep as a manure-producing animal for farm use.

"And it is worth while to compare the two species further. So far as England is concerned, although the sheep population varies considerably from year to year, they are upon the whole as nearly as possible alike in number; and in the month of June, when the agricultural returns are made up, and when lambs are not above half grown, they are probably also very nearly alike in weight. The average carcase weight of the sheep sold at Smithfield is barely 80lbs., which would correspond to a live weight of 140lbs.; and that may be considered also as the average weight of the adult man. Comparing then their respective rations, their relative wastefulness of food, their weight and number, we might reasonably

expect that Englishmen ought at the very least to be as efficient as English sheep in the maintenance of English fertility. But what is the fact? The sheep is the very best live stock known to English agriculture, and man is virtually good for nothing. What would the English farmer do without his flock? Over all the oolitic, chalk, and gravel soils—the light-land districts of the country—to be deprived of the assistance of the sheep would be the ruin of the agriculturist. Man, on the other hand, is, as live stock, we repeat it, virtually useless to him. The excrement of a sheep is worth, at least, five shillings a year to the farmer. In South Lancashire the excrement of man does not realize fivepence per annum individually. The following table shows, as regards the leading towns of which particulars have been given to us, (1) the population—deducting the estimated number using water-closets; (2) the tonnage of manure removed from privies, more than three-fourths of which must be ash and cinder waste; (3) the value annually received for it at the depôt from the farmer; and (4) the value thus received per head of the population annually:

QUANTITY AND VALUE OF TOWN MANURE.

Name of Town.	Population using Privies.	Tons of Manure annually.	Money received.	Value per Head.
Liverpool	350,000	138,777	£ 8,000	d. 5·5
Widnes	12,000	1,800	150	3·0
Salford	120,000	38,600	4,000	8·0
Manchester.....	300,000	73,594	6,740	5·4
Bolton	75,000	22,465	1,567	5·0½
Bury	29,000	7,000	100	0·8
Oldham	77,000	50,000	2,000	6·2
Ashton-under-Lyne...	37,000	6,637	95	3·2
Southport	15,000	9,000	740	8·8
Total	1,015,000	347,873	23,392	5·5

“The sum of £23,392, which is here quoted as representing the money value of all the house waste of about 1,000,000 people, is indeed all that is received from 1,236,000, that number being the whole population of the towns named, and that sum being all that is received for what the scavenger collects; so that the annual value individually of man as farm stock in Lancashire may be put down as less than 4½d.; and this supposes the ash and cinder waste with which the excrement is mixed to have no share in the valuation.”

It is when speaking of the remedies for the nuisance arising from common privies and ashpits that the Commissioners, in referring to the use of various common deodorisers, observe that “the so-called dry-earth closet is much the best of these plans; and it is undoubtedly capable of being made an admirable scavenging expedient, so far as privy refuse is concerned. Of this we convinced ourselves at the Broadmoor Criminal Lunatic Asylum, where a large number of earth closets have been introduced, and are worked to the satisfaction of Dr. Meyer, the resident medical officer. At Wakefield prison too, all the lower cells are provided with earth closets; and although the closeness of a confined and narrow room was perceptible (the prisoners having been kept in till a later hour than usual on our visit), there was no offensiveness recognizable of the special kind that might have been expected. Here, however, the plan has been found applicable only to the cells on the male side of the house, in which separate vessels for the urine are provided. The earth for the Wakefield prison is dried in a kiln and supplied weekly to the closets, and the pans are removed as soon as filled; their contents, taken to a shed, are turned and pulverized, and used in the prison garden with advantage. At Halton in Buckinghamshire a pretty country village of 50 or 60 cottages, the roadside chalky soil is used successfully in the dry-earth closet with which every cottage

is provided. For this purpose it is screened and dried upon a kiln floor about 9 feet square; 100 bushels of coke being used in this way per annum for the 50 closets in the village. When hot and dry the earth is carried to the hopper in the back wall of each privy, which holds about 60lbs.—enough for 40 uses of the seat. The floor beneath is cemented so as to hold the liquid as well as the solid excrement; and the seats are hinged and on springs, so that on rising from them a portion, about 1½lb., is discharged from the hopper, and thrown upon the mass below. We came, without notice, one evening into the village, and examined about a score of these cottages, and found everything as clean and sweet as possible. Seats and floors in front, hoppers and cesspool floors behind, were all clean; and there was nothing to be seen but white dry earth, and no smell was perceptible. Moreover we were told that the cesspool, cleaned out as required three or four times a year, furnishes a material, which, after lying in a heap for some months under a shed is put upon the kiln again and used a second time. Last year 70 tons of stuff were taken out of the privies of the 50 cottages; 30 tons however had been used twice, so that only 40 tons were available for use upon the land; and it had proved a capital fertilizer, producing an abundant crop of grass where the manure had been applied.

“In all these cases, however, the chamber slops are kept separate; and independently of that the success depends not upon the people using the privies, but upon an officer whose business it is to look after them and keep them clean. Even at Halton one man is set apart for this work who attends to the kiln, to the provision of dried earth, to the keeping the hoppers full, and to the removal of the manure. Elsewhere we have known earth closets introduced for the use of cottagers accustomed to the old privy seat and cesspool; and, requiring special service and attention which the average man or woman will not give, they soon became filthy and offensive. Add to these circumstances the enormous aggravation of all the difficulties of the plan when not fifty but fifty thousand householders have to be provided with the necessary appliances and induced to work them properly, and we can have no hesitation in pronouncing the dry-earth system, however suitable for institutions, villages, and camps, where personal or official regulations can be enforced, entirely unfitted to the circumstances of large towns.

“At Lancaster, indeed, an attempt has been made by a neighbouring landed proprietor, Mr. W. J. Garnett, of Quernmore Park, to get the house scavenging of the town done upon a modification of this plan, and to deal with the whole excrement of the household upon the dry-earth system. By constant and even daily collection in tubs and pans the whole excrement is collected from a large number of houses, and the payment of 1d. a week per house is said to secure the collection of the chamber slops as well as of the privy contents. Nearly one-tenth part of the town is thus dealt with. Earth is sent round daily, and thrown into the privy holes, and when the pit is full the whole is taken to a depôt where it is mixed with material derived partly from street sweepings and ash-pit refuse; and being thereafter piled beneath a shed built upon a farm near the town, the whole is soaked with the collected urine.

“A sample carefully taken being analyzed in our laboratory proved to contain—

Organic matter and ammonia containing .207 of total combined nitrogen	6·671
Mineral matter containing .326 of phosphoric acid	66·782
Water	26·547

100,000

N

"These figures indicate a practical value certainly much below that at which we had been led to estimate it by mere inspection; and it is manifest, from the very small amount of total combined nitrogen, that much of the urine escapes preservation. An inordinate quantity of earth appears also to have been added to the excrementitious matters, since more than 93 per cent. of the finished manure consisted of nearly worthless mineral matters and water."

Secondly, we will examine the deodorizing results of irrigation. This is of far greater importance than the large profit derived in this mode from sewage. The improvement of the public health, indeed, must ever be the primary object with Boards of Health. Now this great question has been carefully and laboriously examined by the Commissioners who have, in each month of the year, by their own analytical chemists, in a laboratory belonging to the public, examined the sewage as it flows on to the land, in various places, and the effluent water as it escapes from the irrigated land into an adjoining stream. I select from this invaluable report the cases of Croydon and Norwood, because here we have to consider the results obtained from two widely different soils—the first being a gravel soil, and the last a stiff variety of the London Basin Clay. Of these two most important operations, the Commissioners observe:

"The following table contains the results of our periodical analyses of the sewage and the effluent water from the sewage farm at Norwood:

RESULTS OF ANALYSES EXPRESSED IN PARTS PER 100,000.

Description and Date of Collection.	Total solid matters in Solution.	Organic Carbon.	Organic Nitrogen.	Ammonia.
Average composition of the sewage before irrigation.	94.9	3.971	1.586	6.032
Effluent water, Sept. 24, 1868	81.7	1.621	.214	.013
" Oct. 8, "	95.3	1.516	.189	.006
" 22, "	88.4	1.372	—	1.080
" Nov. 19, "	78.0	1.473	.285	1.366
" Dec. 3, "	79.6	1.258	.323	1.052
" 17, "	103.0	1.187	.120	1.254
" 31, "	77.8	1.291	.098	.497
" Jan. 14, 1869	86.5	1.221	—	.721
" 21, "	94.3	1.173	.365	.720
after two nights' frost.				
Effluent water, Jan. 25, 1869	100.3	1.431	.419	1.095
after seven nights' frost.				
Effluent water, Jan. 28, "	77.3	1.280	.406	1.195
" Feb. 11, "	83.8	1.130	.133	.300
" 25, "	73.2	1.577	.391	.988
" Mar. 12, "	83.1	1.294	.107	.965
" 25, "	97.8	1.061	.189	.342
" April 8, "	81.6	1.376	.321	.885
" 22, "	102.5	1.495	.260	.842
" May 6, "	84.3	1.483	.410	1.131
" 20, "	83.0	1.602	.354	.730
" June 3, "	97.1	1.683	.250	.415
" 17, "	79.8	1.360	.221	.894
" July 1, "	95.1	1.577	.271	.905
" 15, "	94.0	2.160	.274	.408
" 29, "	93.6	1.889	.210	.135
" Aug. 12, "	93.8	2.095	.332	.130
" 26, "	74.3	1.605	.370	.673
" Sept. 9, "	89.2	2.085	.300	.300
" 24, "	87.0	2.034	.517	1.128

"These results, extending over an entire year, show that the effluent sewage was, except in a few instances, so far cleansed, even upon this heavy clay soil, as to be admissible into running water without nuisance. Two of these instances are instructive, since they occur consecutively during and immediately after seven nights' frost, viz., in the samples collected on January 25th and January

28th, 1869. The frost was by no means severe, yet the organic nitrogen rose from .098 to .419 per 100,000 parts of effluent water, showing that the removal of offensive nitrogenous organic matter was partially arrested, and indicating that during a severe winter the purification of sewage upon a non-absorptive clay soil may be seriously interfered with. It is fortunate, however, that the admission of putrescible organic matter into streams during frosty weather is far less objectionable than it is when the temperature is higher, since the organic matter does not render the water offensive so long as a low temperature is maintained.

"The following results of analyses illustrate the effect of irrigation when carried out upon the porous gravelly soil of the Beddington meadows. It will be seen that the sewage as it flows upon the land possesses scarcely half the strength of average London sewage. The effluent water, even in the month of December, was satisfactorily cleansed and contained but mere traces of suspended matters.

RESULTS OF ANALYSES EXPRESSED IN PARTS PER 100,000.

Description.	Suspended Matters.		
	Mineral.	Organic.	Total.
Sewage as it flowed upon land, Dec. 23, 1869.	1.96	6.64	8.60
Effluent water, Dec. 23, 1869	Trace.	Trace.	Trace.
Sewage as it flowed upon land, Dec. 30, 1869.	3.80	10.80	14.60
Effluent water, Dec. 30, 1869	Trace.	Trace.	Trace.

"The following table contains the result of our periodical analyses of the sewage and the effluent water from these meadows, extending over an entire year:

RESULTS OF ANALYSES EXPRESSED IN PARTS PER 100,000.

Description and Date of Collection.	Total solid matters in Solution.	Organic Carbon.	Organic Nitrogen.	Ammonia.
Average composition of the sewage before irrigation.	45.7	2.508	1.576	3.006
Effluent water, Sept. 24, 1868	37.8	.723	.119	.006
" Oct. 8, "	37.9	.605	.120	.005
" 22, "	49.0	.644	.069	.008
" Nov. 5, "	39.9	.801	—	.248
" Dec. 3, "	40.2	.766	.239	.534
" 17, "	48.7	.632	.124	.130
" Jan. 14, "	44.7	.604	.186	.166
" 21, "	46.0	.620	.242	.466
after 2 nights' frost.				
Effluent water, Jan. 25, 1869,	45.1	.562	.235	.275
after 7 nights' frost.				
Effluent water, Jan. 28, 1869	34.5	.614	.093	.165
" Feb. 11, "	38.4	.979	.138	.125
" 25, "	39.9	.541	.089	.098
" Mar. 12, "	37.3	.545	.097	.246
" 25, "	38.8	.427	.077	.090
" April 8, "	36.2	.637	.122	.150
" 22, "	39.1	.702	.129	.124
" May 6, "	37.1	.758	.083	.032
" 20, "	37.1	.644	.080	.020
" June 3, "	33.9	.531	.127	.062
" 17, "	29.1	.291	.082	.042
" July 1, "	32.1	.761	.036	.050
" 15, "	38.1	.605	.124	.008
" 29, "	36.9	.628	.077	.090
" Aug. 12, "	39.1	.582	.385	.278
" 26, "	30.8	.362	.054	.018
" Sept. 9, "	32.7	.591	.105	.038
" 24, "	35.5	.606	.103	.068

Of the profit derived from sewage-irrigated land we have ample evidence. It was when speaking of the

Edinburgh meads that the Commissioners observed (*Report p. 75*):

"The grass of the Lochend meadows has averaged during nine of the spring sales, at which it is disposed of by auction, £27 12s. 2d. per statute acre. During the year 1869 the highest price attained was £11 17s. 6d. per acre, and from that down to £19 per acre has been realized. The Italian rye-grass on the same farm has varied in price from £32 an acre for the first year's cuttings to £25 an acre for the second year's cuttings."

Nearly similar sums per acre have been received from the sewage-irrigated meads of Norwood and Croydon. These laborious researches I earnestly commend to the careful study of the agriculturist, the landowner, and the sanitary commissioner.

After a lengthened experience, I feel well assured that by no known chemical process can sewage be so well and profitably utilized as by irrigation. It is a mode of purification which nature points out to us and which in all ages has been the means of removing the excreta of the animal world. Neither is it a novel application by mankind. The sewage waters of Milan, of Edinburgh, and of Mansfield have long and successfully been employed in the irrigation of the grasses. It is a process free for every one to adopt; but not being a patent process, it has no set of patentees to publicly defend its very superior claims, or to contend, as they might, that irrigation is the only process, and all others attempted on a large scale sources of deception and misery.

F A R M F E N C E S .

At the dinner of the Boroughbridge Agricultural Association, Sir G. O. Wombwell in the chair, Mr. BENNETT, of Heston, read the following paper:

The subject I have to introduce to your notice for discussion is one that perhaps may not be so interesting as many others relating to farming; but, nevertheless, I think it is one of great importance, for no farm, however well managed in other respects, can be considered complete and in a high state of cultivation unless the fences are neat and in good order. I think very often too little care and attention have been paid to this particular branch of the farm business. How often do we see large gaps and thin places in the hedges filled up with dead thorns (often thrown carelessly into them), making them larger every year by their smothering, and consequently killing any young shoots that may be near them. No doubt there has been a great improvement in the management of fences during the last few years. The old high hedge with the wide hedge-side growing all sorts of rubbish and producing a great crop of both insect and vegetable nuisance is fast giving way to a better state of things, and where now seen it is generally more the landlords' than the tenants' doing, on account of the preservation of game. I know of no farming operations upon which there is such a diversity of opinion as to the best method of managing hedges, some being in favour of what is called cutting and laying or plashing; some advocating scotching or cutting one side, and leaving the other side to cut in a year or two after; others again advocate cutting off close to the ground, and by that means getting a young fence from the old roots. The old-fashioned plan of plashing an old thin hedge, leaving for stakes the live wood, and where thin filling up with dead thorns, and then binding the top, I think a very bad one, and I have no doubt we can account for many of the wretched bad fences we see from this mode of proceeding. The description of fences vary a great deal in different localities. In some there are high sod banks with furze on the top, and others are made by planting the elm, holly, &c. Some are walls made with the loose stones so plentiful in their neighbourhood; but mostly they consist of the white thorn or quick, and this being the case in this particular district, it will be better perhaps to confine the discussion to the best mode of treating young and good hedges of this description; and also the best way to restore an old bad one. In making a new fence, I think the quicks should be planted early in the spring before the buds show, about nine to the yard, a trench being dug and the sod turned down upon the roots on the level land, if there is sufficient soil; if not, a bank may be formed by cutting a ditch on one or both sides, and planting on the top, but I do not like the plan of planting on a bank unless necessary. The quick should be allowed to grow for a year, and then be cut down, kept quite clean from weeds, and left to grow for two or three years, when it may be put into form, which should be very like the letter V inverted. I would not touch with the knife the lower lateral shoots at all, but leave them to spread wide on each side of the bottom, and by that means preserve the hedge from the depredations of sheep and cattle. I think many of the hedges we see are trimmed too narrow at the bottom, and by so doing letting the sheep get their heads into

the centre of the fence. It is indispensable in getting a young hedge up quickly to keep it clean and well defended by posts and rails or other means, and on no account should it ever be slashed by making the knife cut downwards, but always upwards, and I think the best time to do it is in the autumn. In the next place I come to a much more difficult part of the subject, viz., the best way to improve and restore an old bad hedge. No doubt it is the cheapest way in the long run to stub it up, and plant a new one at a short distance from where the old one stood, but under many circumstances this cannot be done. I think the best way is to combine the two systems of scotching and plashing—scotching where there is plenty of live wood, and laying and lapping a thorn from both sides of the gap, so that, if possible, they should meet in the centre, and be fastened down to the ground with some pegs that have hooks, and a nick or two cut in the layers to make them put out young shoots. All the roots and rubbish should be well forked out, and the hedge kept clean, or the tender shoots will not grow. When free from hedge-row trees, it would be perhaps the best plan to dig and manure the land in the gaps, and plant with young quick-wood, at least if the thorns should not be long enough to reach each other. I have seen some very old bad hedges make great improvements by this way of management, although it is very seldom anything will thrive where there are many trees growing, and I may remark that nothing hinders or spoils the cultivation of a farm so much as having a quantity of hedge-row trees, especially ash trees. Their roots being so near top, take all the goodness out of the soil, besides breaking the implements used. Another plan I have seen adopted is to lay the thorns on one side of the roots or stools, so that you have a guard fence during the time the young shoots are growing up. The objection to this way is that the guard fence is taking the greater part of the nourishment the old roots should give to the young shoots, and consequently they are not so strong and vigorous as they should be. With respect to the best and cheapest manner of forming dead fencing for thin places and gaps, I prefer turnip trays. Some years since I bought several dozen from the neighbourhood of Peterborough. The cost, including railway carriage, was 2s. 6d. each, but I am told they cannot now be had for the same price. They were made of riven oak heads, hooped. The rails were made of ash saplings, either whole or split down the middle. Trays made in this manner are far better and much more durable than those made of sawn wood. I had them in constant use for the purpose of putting down in gaps and at the side of thin places; the labour is very little, and they can be soon shifted from one place to another when required. I had them I think eleven or twelve years, and they were sold when I left my farm for within a trifle of what they cost when new. Perhaps the neatest and most durable wood fencing is what is called railway fencing, made of foreign timber. The expense I believe runs about 1s. per yard for sheep guarding, and 1s. 4d. per yard for cattle. The standards are driven down with a mallet, and the rails are fastened with clipped nails. Posts and rails are most

generally used, the cost depending much upon the locality, but I prefer the railway fencing. I believe the material is very much the same price as the railway fencing, but the labour in putting them down is much heavier and more expensive. I have to thank you for listening to these remarks, and I hope they will be the means of eliciting the opinions of those present on a subject which is too little thought about, and that we shall be able to learn something by mutually communicating our ideas to one another.

The CHAIRMAN was received with applause. He said he was very much obliged to the gentlemen present for having drunk his health so cordially, and it was a pleasure to him to attend the present gathering. As Mr. Smith had said, he purposed making a few remarks on the subject which was to be brought under discussion. He had to thank Mr. Bennett for his very instructive paper, and he would follow him in offering a few remarks on the same subject. He was very fond of jumping over farm fences at a certain season of the year, but he also took equal delight in rearing and training fences, as they should be upon every farm and estate, for in his humble opinion nothing improved the look of a farm so much as neat, well-kept, and well-shaped hedges, and he might also add good gates. He meant nicely painted gates, well hung, and capable of being opened, if required, without a person riding having to dismount his horse, or being obliged to strain his muscles in attempting to lift them—gates not fastened by an old halter or a broom handle. He was deviating from his subject, but whilst on the subject of gates let him add that, hunting as he did every day in the week, on every side of the country, he saw the most remarkable gates and fastenings; and he could assure them he often envied the owners the brains they must have in inventing such fastenings; and he often thought what a pity it was that they did not turn their powers of invention to better account. But, to return to our farm fences: Some twelve years ago it occurred to him that many acres of estate were wasted by growing wide, crooked old fences, full of hedge-row timber, and much of it of no value whatever. He therefore made up his mind to stub many of them up, and to throw small fields together, so as to have a few large enclosures instead of many small ones. He found it a slow and tedious process, and also an expensive operation; but, being fortunately blessed with a set of tenants all anxious for improvements, with their assistance he had succeeded, and he might say that his tenants and himself had stubbed and grubbed up miles of old hedge-rows. In this way they had thereby improved their farms and his estate. In this way, as many present well knew, the look of the country had been changed. With their permission, he would now tell them the system adopted with regard to planting quickwood and rearing it. In the first place, the planting of new quicks on the site of the old fence was carefully avoided. It was then trenched 18 inches deep by thirty wide. If planting on sward land, the sods were first pared and then chopped into small pieces and thrown back into the soil. The quickwood was next planted in a single row as soon after Christmas as possible, and left for one year. After allowing it one year's growth, it was cut off close to the ground, and it then put forth very many shoots, which grew strong and well. In the third spring, the tall shoots were cut down again, carefully leaving the lateral branches, which, of course, spread out, and make a good thick bottom. The fourth year and every subsequent year it was allowed to rise about a foot, and, by training it in this manner, and shaping it like the English capital letter A, it became a good sheep fence between ploughing fields in seven years, and a good fence between grass fields in ten years, and not requiring any guard fencing. He measured one on his farm on the previous day. It was nine years old, and was five and a-half feet high, whilst at the bottom it was exactly six feet in width. In rearing farm fences, the great secret he had found was to keep the quickwood well cut down the first four years, so as to grow thick at the bottom, and, above all, to keep it clean and well protected from sheep, especially lambs, which would injure it as much as hares or rabbits. He considered it a waste of time and money to attempt to get up young quickwood fences where there was much ground-game, it being impossible, as he had found out himself, to do so before he reduced the ground-game upon his estate. These

young fences, when seven years old, and trained in the way he had mentioned, were the best possible protection for winged game, as they were narrow at the top and wide at the bottom. A partridge could sit close to the quickwood, perfectly protected by the side or lateral branches, which covered her so that no dog could get near her. And let him tell them for their information, and for the information of landowners generally, that when he first commenced to grub up these old fences, so dear to all gamekeepers, that an old and excellent keeper of his informed him gravely that there would not be a place left for a bird to nest in, and that the new hedges would be useless. Last year, however, when out shooting, he came to a new hedge about eight years old on one of his farms, and this good keeper's retrievers could not extract a dead partridge from the bottom of the fence into which it had fallen in consequence of the width of it. The keeper turned round to him with the remark that "these ere hedges are the best for birds to nest in I ever saw." The man was converted, and he saw and was satisfied that he had done right in the course he had adopted. He said nothing to the keeper in reply to this remark. There were several present who knew the fences on his farm and estate, but should anyone whom he then addressed have not seen them, and would like to see for himself, he should be glad to have a visit from him, and he would point out to him hedges from two to ten years old which no other estate in the three ridings could beat.

Mr. CALDER said he had recently spent an hour or two in riding over and looking at the Newburgh estate, in company with Sir G. O. Wombwell, and he could say that he never saw better gates, and he had not once to get off his horse to open one. The estate, from what he saw, was one of the best managed he had witnessed since he came from Scotland to England. The hedges, too, upon the estate were very good. The best time to plant a new hedge was in November and December, or in February. In his opinion the best of all hedges was a stone fence, but the cost was great, and they could not be adopted except in a stone country.

Mr. T. SCOTT (the Secretary and the Vice-Chairman) quite agreed with Mr. Calder considering that one of the most prominent features of the proper management of an estate was good fences kept in proper order and duly cared for. He was of opinion that in the planting of quickwood four to the yard was sufficient, and that six to eight or nine was far more than necessary, and when planted the whole of them would not live. The quickwood could be well manured for three halfpence per yard, and this treatment was the means of getting up the fence as quickly as possible. In the cutting of a new fence it ought to be struck upwards, and never downwards, and the proper time for planting was to his mind in October. He deprecated the system of cutting down and laying old fences, as nothing was so detrimental to the thorn, which was in fact murdering the plant itself. Speaking of guard fencing he considered post and rails expensive, as they were rubbed against by cattle, but the American fencing was smooth and handsome. No estate of any magnitude ought to be without a saw mill, as by it a great amount of timber would be made available for fencing which otherwise could scarcely be sold at any price. It was to the interest of both landlord and tenant to have good fences on a farm, more particularly to the landlord. The keeping of the bottoms of hedges perfectly clean, and encouraging the lateral shoots to grow, was the proper means for securing good fences. He agreed with the hon. baronet as to the importance of good gates properly hung. Really good gates were scarce, those that would readily swing backwards and forwards and shut themselves. Many of them dragged upon the ground and soon became out of order and destroyed. They would not swing easily, and farmers who had such gates on their farms were rightly served if they found them left open.

Mr. JACOB SMITH spoke of railway fencing being good, but too expensive. As a guard fence there was nothing so good as oak posts with a single line of rails in front of an old hedge, by which cattle were kept from injuring it.

Mr. BENNETT, in acknowledging a vote of thanks, said that he did not approve of stone walls as fences. Loose stone fences were always getting out of repair, and they gave the country a cold and bleak appearance.

AGRICULTURAL CUSTOMS.

An adjourned meeting of the Midland Farmers' Club was held at the Royal Hotel, Temple Row, Birmingham, for the further consideration of the paper on Agricultural Customs, which was read by Mr. W. Fowler, jun., at the meeting in April; Mr. W. Brewster, President, in the chair.

The discussion was resumed by Mr. R. H. MASFEN, who had reduced his remarks upon the subject to writing. He was most anxious to know the views of Mr. Fowler and gentlemen of his profession upon the following points; First—Is the generality of land farmed well? Does it produce as much as it is capable of doing? What is the percentage of farms not directly handed down from one occupying member of a family to another, which are left in a good and desirable state of cultivation and condition? Next—What are the means of securing that desirable state alluded to? by whom must that expense be borne? And are, or are not, existing agreements tending to the encouragement of good husbandry, or to the depreciation of the land during the last few years of the occupation? It must be admitted that those who expend liberal sums in manure and feeding stuffs farm in a manner to make the land of greater value than when those appliances are withheld; and hence the cause of hearing so much on this subject. He would give a simple illustration on a farm of 400 acres—50 grass and 350 arable. He would contrast the grain crops in their respective value where farms are left in good condition with those which had been impoverished during the last years of occupation, and give proposed scales of compensation numerically. In the first case he should give the scale for artificial manures or purchased food, assuming that £200 per annum was expended for food, and £200 for manure. This proposed to give one-third of last year's manure bills, amounting on the £200 to £66 13s. 4d.; one quarter of the last year's but one purchased food, £50; and one-third the last year, £66 13s. 4d.; total, £183 6s. 8d. Now, if he grew one-half quarter per acre more wheat and barley, and sold the former at 40s. and the latter at 30s. per quarter; he was a gainer of £96 13s. 4d. in the first two years' crops, after paying the in-coming tenant the amount due to him on the scale referred to. The next scale proposed the same scale for foods as the last, but two-thirds instead of one-third for artificial manures:

One-quarter last year but one for food...	£50	0	0
One-third last year for ditto ...	66	13	4
Two-thirds of manure bill for roots ...	133	6	8
Total ...	£250	0	0

Now, if he grew six bushels of wheat and six bushels barley more under this scale than where no consideration to a quitting tenant was made, and the farm had been impoverished, he sold: wheat, £240; barley, £180; total, £420; amount received over in-coming payment, £170: a good return for his first outlay. The next was Mr. Cadle's prize agreement, and it gave on £200 for purchased foods:

One-quarter last year but one.....	£50	0	0
One-half last year	100	0	0
One-third last year but one for purchased manures	66	13	4
All the last year's, provided it is used for roots...	200	0	0
Total	£416	13	4

Now with this liberal allowance they would expect to have better crops than in the others; and one quarter per acre additional to the crop on an exhausted farm was a very moderate amount to put the increased crop at, which, at the same price as the other scales, would give

For 160 quarters wheat at 40s.	£320
For 160 quarters barley at 30s.	240
Total	£560

Hence they had a profit of £143 6s. 8d. They would see the

advantage was greater in the second illustration than in the third; and the only alteration he should suggest in the third was that the allowance for purchased manures should only extend to the last year, and he thought the returns would not be materially effected by the change. That would stand thus in the table:

One-quarter last year but one for cake	£50	0	0
One-half last year for cake	100	0	0
All the last year's manure	200	0	0
	£350	0	0
Thus for wheat	320	0	0
„ barley.....	240	0	0
	£560	0	0
Deduct	350	0	0

Total amount in first two years over amount paid on entry	210	0	0
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The amount of compensation should not be a matter of doubt or litigation. To those persons who doubted the desirability of such a practice being more generally accepted, he would reply by asking them to tell him how the landlord's interest was in any degree interfered with or encroached upon? The landlord was equally interested with themselves. He secured a class of tenants he never had before; the country at large was an immense gainer by the increased amount of native produce; and the additional amount of labour required to carry out the general requirements of good farming must tend to a beneficial result in all ways. He would ask how long a farm that was run out would be in regaining its natural producing powers under good management? He heard from some of the greatest land values that it will not much improve from the exhausted state for eight or ten years. Now the tabular statements which he had given had reference only to the improved crops of the first two years of the new occupancy, and showed a net gain to the income by paying for food and manures so as to retain the soil in an unimpoverished state, demonstrating beyond all power of contradiction the desirability of preventing exhaustion, which is so much encouraged by the present unsatisfactory covenants. Let the tenant be compensated for all improvements which have been effected by the landlord's consent (those of a permanent character must be paid by the landlord, as his land is worth a higher rent from the same) and the in-coming tenant should pay for acts of husbandry and unexhausted foods and manures. He believed such an arrangement would be fraught with unknown advantage, not only to the owner and occupier of the land, but to the community at large. Land must be well farmed and left clean, and those who did not so leave it ought to be made to forfeit a sum sufficient to repay the in-coming tenant for the additional outlay which he had to make. Under the old and general farm covenants he would impose no such thing, as nearly all of them tend to foster bad farming in every way during the last years of occupancy, both as to condition and cleanliness. In this he was aware the generality of the most thinking men and best landlords, agents, and farmers, agreed with him. The one great thing which was lost sight of was that when a farm was left the incomer was, in the majority of cases, called upon to expend large sums in cleaning and manuring the land before he got any return for his outlay. Would not this be more advantageously met by the farm being returned in a good state by paying the off-going tenant, and thus preventing the injury and spoliation that arose by a tenant having to take out of the land that which he had put in, because he receives no benefit from that which he leaves behind? Corn grown and consumed on the farm he would not allow for, neither for artificial manures used for the growth of grain crops. The proposed compensation would encourage men to farm so as to leave their occupations in good order, and would

attract capital to a branch of commercial enterprise which has occupied, and ever will occupy, an important and indispensable position in a nation's wealth, prosperity, and independence. Although we had imported annually during the last three years £37,000,000 in the shape of grain, and £5,000,000 worth of cattle, besides other articles of consumption, our teeming population required it all; and any protracted drought or continuous rain caused a marked difference in the value of agricultural produce. It was, therefore, imperative that no barrier should interfere with the best returns which a grateful soil is ever ready to yield.

Mr. BROWN regretted that the landlords had not manifested a greater interest in the discussions which had taken place upon the subject. It might be that they were apprehensive of losing something by any changes which might take place in the present system of customs and covenants; but he thought this was a very erroneous view. All the farmers asked was that they should be encouraged to cultivate their land so as to increase the amount of produce, and to employ more labour. One Warwickshire landlord, however—Lord Leigh—took a deep interest in the question; and he was sure that nobleman would not suffer, but rather benefit, by the graceful concessions he had made to his tenants. He was glad to find that, with a single reservation as to the last year of the tenancy, Mr. Fowler was not in favour of binding farmers to any fixed system of cropping; for such restrictions would never make a bad farmer into a good one, and he had seen land as thoroughly exhausted where a certain rotation was insisted upon as where the tenant exercised his own discretion. He was afraid Mr. Fowler was too much in favour of the six months' notice to quit, and he believed that a twelve months' notice would greatly tend to the improved cultivation of the soil—[Several voices: "Three years."] Buildings should be erected by the landlord; and if it was inconvenient to him to lay out his money, and the tenant was disposed to do so, the latter should be allowed to erect them on the understanding that he was repaid by the landlord at a fair valuation on expiration of tenancy. Draining, too, should be done by the landlord, and interest on the amount be charged as increased rent upon the tenant. In regard to compensation for unexhausted improvements, he thought it was desirable the Legislature should provide that all disputes should be decided by arbitration; and that a public umpire should be appointed to decide upon cases where the arbitrators appointed by the respective parties could not agree.

Mr. KING said it was a gross injustice that the law should allow a heir on succeeding to an estate to turn out the occupying tenants, almost at a moment's notice.

Mr. FOWLER said that the stringency of the law of which Mr. King complained was considerably modified some years ago.

Mr. HOUGHTON said that since the repeal of the Corn Laws every child born in this country had been fed by the produce of foreign countries; and that if landlords did not themselves make alterations, it was certain that alterations would be made for them, since it was dangerous for us to go on importing foreign food even faster than the increase of population.

Mr. MAY said there was great difficulty in stating the precise amount which ought to be awarded to a tenant for compensation, but all must agree that something ought to be done. He thought they were in a fair way for arriving at some decision, since the discussion of this topic was now general all over the country. If in the face of low prices for corn they were to go on spending their money, they must know under what guarantee they were doing so. He did not wholly agree with what had been said on that occasion as to the amount of compensation. The phases of the question were so various, and each ought to be considered so thoroughly, that he thought it would be hardly possible to lay down any particular rule. They all knew that the amount of corn or cake consumed very much altered the value of the manure. Mr. Lawes, and most gentlemen who had made it a matter of study, averred that beyond a certain amount a beast did not assimilate the whole of it. But if you gave a beast 4lbs. of cake, the probability was that it would assimilate more in proportion than if you gave it 8lbs.; and they all knew that our best feeders—those who fed for show purposes—gave an extreme quantity. Now it was said there would be great difficulty in knowing whether a man had consumed all for which he put in a demand. Some said you must bring vouchers, and here a great difficulty would

arise. Still they must have some arranged plan of compensation, which must be left to the decision of men capable of judging. If it had been achieved in other counties it could be achieved in this, and consequently in all other counties. He, himself, was a lease man, and preferred a lease on liberal terms to any other form of holding. He could not see why, under a lease, the land should not be left in as good a state as under any other kind of agreement. The six months' notice was a very dangerous thing when exercised in an arbitrary fashion.

Mr. T. B. WRIGHT said that he still thought the question before them should be discussed upon a wider and more extensive basis than it had hitherto been. So far as that Club was concerned, it had resolved itself into that of unexhausted improvements only; and it certainly was to be regretted that some general rules on this point had not long since been arrived at. But he must again express the opinion, that whatever scheme of compensation they might establish would prove an inadequate protection to tenant-farmers who held their farms subject to either a six or a twelve months' notice to quit. He thought either long leases or some arrangements of a similar character, would alone satisfy the requirements of the case. The state of agricultural affairs in Ireland had lately attracted public attention in an extraordinary degree; and in one province of that part of the United Kingdom, Ulster, a state of things existed which had been productive of the best results to both landlords and tenants. The Ulster custom was not founded upon any written law; but he believed the late Earl of Derby had said that he was as much bound by it as though it had the authority of an Act of Parliament. A recent writer, speaking of the extraordinary prosperity of Ulster, said: "Strangers see in the north of Ireland a province in no special way favoured by Heaven, with ruder air and less generous soil than that of the fertile and sunny south, and here in this 'black northern' county is centered all the prosperity of the land." He did not know whether the legislation which was found necessary with regard to Ireland would be applied to this country, but that some changes in the tenure of land were necessary there could not, he thought, be a doubt. At the same time, it would be unwise to rely upon any half measures, or to pretend to make changes when in reality the object was to keep matters very much in their present state. Every one must be satisfied that it was absolutely necessary for the welfare of the community that the land of England should be made as productive as possible, and should employ a fair share of the labour of the country, and it would, he thought, be unwise on the part of the landed interest to disregard the state of public opinion and especially in many of our large towns. But although he ventured to urge that compensation for unexhausted improvements was by no means all that was required, yet under any circumstances questions of this kind would from time to time arise, and he thought both the Club and the agricultural interest generally were indebted to Mr. Fowler and to Mr. Masfen for the clear and able manner in which they had treated the subject.

Mr. LOWE contended that the farmers had not hitherto sufficiently looked after their own interests. He should, no doubt, be told that farmers in this country were placed in a peculiar position, by reason of there being so great a demand for occupations; but since they were dealing with a limited commodity they should be the more careful as to the conditions on which they took it. By their eagerness to obtain possession of farms the farmers enabled the landlords to impose restrictions and exact conditions which were manifestly unfair to the tenant. What was wanted was a fair and equitable agreement between landlord and tenant; but if they waited for legislative interference he feared they would for a long time remain in suspense.

Mr. WINTERTON said that many tenants stood with open hands to invest their money in the land, if they had guarantees for compensation, which, he contended, they should demand, not as a favour but as their right. He himself had so invested his capital, because he felt he was doing what he ought to do as an occupier; for he held that the man who had a farm under his charge was bound, not only in justice to himself, but to the whole country, to make the best possible use of it. Still he must say that this investment of his capital had often been to him a subject of very anxious thought, and had caused him many sleepless hours, especially in regard to the family growing up around him. All farms ought to be taken under a fair agreement, and if this were the case, he believed the

produce of the land and the stock which it carried would be almost doubled.

Mr. FOWLER made only a brief reply, in which, with reference to the difficulty which it was supposed tenants would experience in making out claims for compensation, he suggested that they should enter in a separate book, or place upon a separate file, the accounts on which they based their claims. He agreed that where landlords were not prepared to drain, or to erect buildings, the tenants should be allowed to do it by an agreement which was equitable to both parties. As to the six months' notice to quit, he contended that much might be said on both sides; and that landlords did not turn out good tenants, for they were not over plentiful. He did not think any allowance should be made for manure used in the growth of corn crops. Speaking generally, with regard to purchased manures, he thought two-thirds of that used in the last year and one-third of that in the year before, would be about a fair allowance. Concerning corn and cake he should say one-third and one-sixth respectively for the last and previous year. In conclusion he said he would submit a resolution which was moderate in tone, and would, he thought, be agreed to by all present. His friend the Chairman had wished him to go a little further; but as probably this would give rise to discussion, for which the hour was too late, he had preferred to let it remain in the following form: "That in the opinion of this meeting it is highly desirable, both in the interests of the landlord and the tenant, that a fair and reasonable allowance should be made to an outgoing tenant for unexhausted purchased manures, and also for corn and cake consumed upon the farm within the last two years of the tenancy."

Mr. MASFEN seconded the motion, which was carried unanimously.

THE ROYAL AGRICULTURAL COLLEGE, CIRENCESTER.

The spring session closed with the usual distribution of diplomas, certificates, and prizes. About nine o'clock in the morning the visitors, professors, and students assembled in the College Chapel, and after a short service, adjourned to the theatre of the institution. Mr. Holland presided, and in giving away the prizes each professor made some remarks upon the work which had been done during the past session in his own department.

Professor WRIGHTSON expressed satisfaction with the attention which had been given to agriculture proper, and spoke of the growing interest in that very practical part of agricultural studies, manual work, which had become, he might say, a recognised institution at the College. A year ago the attempt was made to stimulate interest in this direction, and he felt confident that the large body of students he saw before him would bear him out when he said that the practical work on the farm now occupied an important part of their leisure time.

Professor CHURCH, after a few prefatory remarks regarding the progress of students in chemistry, gave a short epitome of the various subjects which had occupied his attention in the laboratory during the past session. He had devoted much time and care to the preparation of the new edition of the Laboratory Guide. The whole of the volume was in type, and would be published before the opening of next session. The Guide has been doubled in size, but, he hoped, increased in clearness as well as completeness. The first part, entirely new, consisted of 32 lessons of chemical manipulation, intended to teach practical chemistry in a way fitted for general adoption in colleges and schools. A series of experimental grass plots had been arranged in order to test the results of the continued application of certain manures to definite mixtures of grass and clover seeds: a series of sugar determinations in sugar beets, taken up at short intervals last autumn, had been completed. A new substance (cyclopia acid) had been discovered in the *Cyclopia Vogelii*, one of the plants used by the African Boers for tea; three new minerals, interesting from a scientific point of view, had been examined, and the usual work of water, manure, and other analyses had been carried on.

After some remarks from Professors McBride and McNab, the Principal spoke of the general good conduct of the students throughout the closing session. With regard to what Professor Wrightson had said upon practical work, he entirely concurred, but he would ever hold the opinion that, valuable as a know-

ledge of practical (manual) work must be to the farmer, the first object of the college was to encourage study and to communicate scientific knowledge. Without in the slightest degree deprecating the importance of practical work, he wished to remind them that it must ever hold a subordinate position with regard to more abstract study. While speaking upon the point, he must not forget to acknowledge the most kind and earnest interest Mr. Swanwick had taken in the encouragement, by prizes, of interest in farm work. Mr. Swanwick had allowed students every facility for acquiring practical skill in the sheepfold, the feeding sheds, and the fields, and he had given a large amount of his time in deciding who was the most eligible candidate for his prizes.

Mr. HOLLAND spoke at some length upon the objects of the promoters of the College and the success which up to the present time had been achieved. He also drew the attention of students to the means afforded by the College Club of continuing in after life friendships made while at college. The Club ought to become every year more important and more useful, and he hoped to see a large number of old students and old friends at the approaching Club meeting at Oxford.

Four candidates for the diploma then received their certificates of membership, namely: H. Willett, Lewes, Sussex; J. Edwards, Leamington; E. Jackson, Darlington; M. Granados, of Mexico. The certificates of honour and prizes having been distributed, the meeting separated.

SHEEP WORRYING.

At the Yeovil County-court, last month, a watchmaker and jeweller, of Yeovil, named Dobell, brought a claim against the son of a farmer, Mr. John Brooks, to recover the sum of £3, the value of a dog, which the defendant had shot. It would seem that some time in April last a Miss Cook, accompanied by the dog, was walking through a field of the defendant's, in which were a number of sheep, when the dog gave chase to a lamb, which he seized, and began to worry. Mr. Brooks, jun., at that moment came out of his house, and, shouting at the animal, caused it to leave its hold of the lamb, which at that time appeared to be dead. The dog had not, however, gone far before Mr. Brooks shot it dead. Under these circumstances, the action was brought to recover the amount above named.

On the part of the defendant it was not for a moment denied that he shot the dog, but it was contended that he had perfect right to do so. The dog, when first seen, had the lamb, which was only about six weeks old, on its back at the time, and was shaking it. It was impossible to have shot the dog before it left the lamb, or in all probability that would have been shot as well. The losses occasioned to Mr. Brooks by dogs worrying sheep were stated to be nearly £100 a year; and Mr. Watts, who appeared for him, argued that the conduct of the defendant had been perfectly justifiable in order to ensure the safety of the sheep; and he quoted an opinion from Oliphant, in support of his case, as follows: "To justify a person in shooting a dog for worrying his sheep, it is not necessary to prove that he was shot in the act, but it is sufficient if it appear that he has been accustomed to worry sheep and could not have otherwise been restrained from doing so."

On the other hand, Mr. Ellis, who represented the plaintiff, argued that the dog having left the lamb, defendant had no right to shoot it.

His Honour took a similar view of the case. If the dog had been in the act of worrying the sheep, or if he had been running after them, and they could not have escaped without the interference of the defendant, the law would probably have upheld him in his act. But here it seemed he had waited until the mischief had been done, and he killed the dog when it was not necessary for him to do so in order to prevent a recurrence of the attack, for the dog was going away; and that being so his remedy against the owner of the animal would have lain in an action for damages, and not in killing the dog.

Evidence was then given as to the value of the animal. By the plaintiff it was stated to have been a valuable retriever. The defendant said he should be sorry to be seen walking about with such a "mongrel" after him.

Ultimately the judge, Mr. Saunders, gave the plaintiff a verdict for 30s.

CALENDAR OF AGRICULTURE.

Drilled crops must be thoroughly cleansed, by scuffling and hand-hoeing, so that no weeds are seen to grow. The intervals of the drills are thoroughly followed by the horse-hoe repeatedly applied, and the ridglets broken and pulverized by the two-hand hoeings, which thin the turnip plant and destroy the weeds. Potatoes, beetroot, and cabbages are cleansed in the same way, and any tall weeds that may rise after the last scuffling and hoeing are pulled by hand. Before the haulm of potatoes has grown over the intervals of the drills, the ridglets are earthed up by two deep and heavy furrows of the double-mould-board plough, done in the interval of 10 to 14 days apart, the plough drawn by two horses, walking two drills apart, with a main draught-tree of 5 feet in length, the ridglets being 3 inches distant. The plough moving in the intervening hollow, a wide scope is afforded for throwing a deep furrow of soil over the sides of the ridglets, in which the tubers have room to protrude and swell. This finishing process of a deep and wide tillage forms a very chief point in the cultivation of the most valuable root that is enjoyed by man in the largest variety of purposes, from the table of the peer down to the feeding of the pig and the peasant, and in the various conditions of boiled or steamed, raw, washed or dirty, used alone or mixed with other substances. No other root permits so many applications.

Lay lime, dung, and composts on wheat fallows, the lime being previously laid in a longitudinal heap on the headland of the field, turned over and pulverized into a hot causticity by the application of water. In this condition the pulverulent body is spread over an extent of ground to the right and left of single-horse carts, by hand shovel in the allowed quantity, and harrowed into the ground by a double tinc. Another method places the cinders from the carts in small heaps on the ground, and covers with earth, and spreads the lime over the surface, when the rains and the moisture of the lengthening nights have dissolved the cinders. A recent method breaks the crude limestone into small pieces, which are burned into cinders, that are spread over the ground, covered by a furrow of ploughing, dissolved in the ground by the moisture of the soil, which is heated and the temperature raised by the warm and damp exhalations that are emitted by the process of dissolution. This way agrees well with the doctrine of lime conferring its benefit to the ground by the caloric of the incinerated body warming the ground and raising the temperature, which is very favourable to every vegetable life. The first-mentioned way of the lime being in the condition of quicksilver from a fresh dissolution of the cinders, and consequently running into the mo-t minute crevices in the land, spreads the warmth most evenly and intimately into the ground, and coincides more fully with the theory of the warming effects of lime, to which there is the strongest probability attached, and rises above the "*scientia media*," which is above conjecture, and below certainty. The warming effects of lime may be a fixed certainty, which are most generally lost or made very weak by reason of want of quantity, and from the land being a conductor over a fallow of caloric, depending mainly on the mixture with animal and vegetable remains. Hence arises the failures and the success of lime as a manure.

Farm-yard dung is laid on fallowed lands, cleaned of weeds, with all stones removed, and the soil pulverized. Small heaps of dung—from 12 to 15 two-horse cart

loads, and about 20 loads of single carts to an acre—are spread evenly over the surface, with lumps of dung, broken by hand and fork, and covered by a furrow of ploughing. A lad or woman may follow each plough, and gather into the furrow of the plough any piece of dung that lie on the surface, having escaped the covering furrow. The nicer ideas on the subject of evaporation lay the land into ridglets by one furrow of the common plough, the dung is spread along the hollows, and covered by splitting the ridglets with one furrow of the plough, which in going and returning opens a furrow and covers another. A cross harrowing will be required to level the ground for the seed furrowing of the land, or the ridging of the land may be done across the line of the seed furrows, and omit the harrowing. In the applications of farmyard dung, the advantage will appear of the straws being cut into short lengths by the steam-thrashing machinery. The covering in the land will be rendered more convenient, and the mixture will be more complete of straws, urine, and solid feces.

Supply to work-horses and cattle in the yards ample stores of vetches, which will be the green meat of the farm, and will constitute a good food from the pods of seed being formed. The second crop of clover will come into use, and the most necessary and constant (quite possible) supply of green meat being provided, the yards will be filled in summer, making dung as good as in winter, from horses, cows, cattle, and store pigs voiding much urine and mucilaginous feces. Ample littering must be afforded.

Keep the draft ewes on good pastures, and at the end of the month place them with the ram for early lambs. The lambs of the year must have a good maintenance.

Carry to the liquid manure tank all vegetable substances in a reduced bulk, with fine earths and scraping collections. Or the tank may contain liquids only, and the earthy bodies may form a dry compost heap, with caustic lime as a solvent of coarse substances, and mild lime as a mixture for minute substances. This heap will be most useful for receiving all reducible bodies into a compost.

Sow in the end of the month, on stubble ground of good quality, rye and tares for the early spring use, and sow on beds of well-prepared land the seeds of drum-head cabbages, kohl-rabi, savoy, and brocoli, for plants to be used next spring. The plants require to be transplanted into lines, to prevent shooting into seed too soon.

Cut all tall weeds on sides of roads, and on ditch banks, before the seeds are ripe, which, being light and feathery, are carried by the wind into places where they grow, and give much trouble. A special clause of agreement should stipulate the destruction of such pests.

This month constitutes the general season of the harvest of grain crops over two-thirds of the United Kingdom. In the earliest districts, the reaping is concluded by the end of the month, in next earliness the crops are reaped and finished by the first half of next month; while in the farthest northern parts, the whole business falls into September with a remnant into October. The earliest cuttings permit of the sowing of turnips on stubble lands, to be consumed on the ground as sheep feed in early winter, and also the scuffling of the ground, and the burning of the rubbish for winter sowing of suitable plants, and of pea and bean grattans, for wheat. The burning of the surface freshness makes a good manure.

Wheat is cut by hand sickle, tied into sheaves of a

moderate bulk, placed in shocks of twelve sheaves, two of which in the northern latitudes, are reversed, and serve as a hood for covering the shock. This precaution defends from rain, but retards from drying after the stack has been drenched by heavy rains. Still the practice is approved of by many. When fully dried, the crop is carried and built into ricks, or lodged in barns.

In early and dry climates, oats and barley are mown by the scythe, and dried as hay, and placed in ricks or in barns; on being turned and dried in the swathe for some days, the crop is tied into sheaves, carried and lodged. The binding suits better for the thrashing machinery. Peas are cut from the ground by hand sickle, laid into small heaps, which are turned over, and dried, and carried into ricks or barns. Beans are cut by sickle into small sheaves, and tied with straw ropes or tarred twine, which last may be preserved for several years. The cutting of the crops is done by day labour, by the acre or by the sheave, as may be most convenient. But in general day labour will be the most eligible, and when properly directed and carefully superintended will always produce the best execution of work; contract ever leads into deception and quarrels.

Reaping machines, which are known beyond description, are employed to cut grain, and have attained a very considerable employment. But a success in the exceptional cases of favourable circumstances is not by any means sufficient to establish a practice on a principle for general utility; a majority of similar results is most essential in all such cases of application and performed under the greatest possible variety of circumstances that can be ex-

pected to occur. The original cost of the machine is large, and consequently requires a large extent of farm ground on which to effect its reimbursements. Hence its ineligibility for small farms. All wheels require a level surface on which to run, and the operation requires a crop of rather strong stems, standing close rather than thin, of uniform height, and but little bent from an upright position. The application is awkward by the draught power being attached to the lateral end of the machine, and thus requiring an open cut at the side or in the middle of a field. The physical obstacles of uneven surfaces, hilly grounds, and swelling undulations, along with thin crops, and a frequent break down from heavy rains, with twisting and intertwining by winds and storms, may confine the use of the reaping machine to the benign climates of South Britain, and to the extreme parts of it, with a very partial use over the whole of Scotland, and North of England, owing to the physical and adventitious obstacles that have been mentioned; and as the value or utility of any discovery, invention, or calculation is not to be gained till time has sobered the enthusiasm of its advocates, a fair inference may be deduced that the cutting of grain crops may remain a manual operation notwithstanding all the ingenuity has been expended, that will appear in mostly all attempts of novelty. The toothed hand sickle continues to make the neatest work; the scythe sickle, though easier drawn, and with less power, cuts the stems before being caught by the hand, and in thin crops strews the ground with a dirty work; but in careful handsthe use is very eligible with strong crops.

CALENDAR OF GARDENING.

KITCHEN GARDEN.

Sow the main crop of turnips—the Early Store or Dutch—in drills, with an inch or two of good manure, and a pint of bone-dust to each barrow, three inches directly over the intended rows; and these drills should be struck in ridges, formed by taking a little of the earth from the spaces between them. Choose an open spot of land outside the garden; for turnips rarely prosper within it. Hoe and thin the plants as they grow, till, at last, they stand about nine inches apart, above two feet from row to row.

Sow in the first week the main crop of next year's early cabbage—in the most southern latitude, from the 6th to the 10th, in the northern parts, a week earlier, according to the coldness of the locality. Water the drills before sowing, if the weather be dry.

Sow winter prickly spinach twice, in the second and last week. Choose mellow soil, moderately rich, like to that after fresh dug early potatoes. Nitrate of soda has been proved a most fertilizing dress, particularly in binding gritty loams—half-a-pound scattered over a pole of 30½ square yards digged in, and the rows a yard apart, sown as the digging proceeds.

Sow endive in the second or third week.

Sow also a sprinkling of horn carrot, salads, radish, and lettuce, the hardier sorts, and onions for spring. Sow cauliflowers about the 20th, to be planted under glasses or in frames.

Transplant, at various times, according to their size, stout, well-formed plants of cabbages, brocoli, savoys, and Brussels' sprouts. Incorporate a quantity of good manure with the soil, to which has been added sulphate of ammonia, half-a-pound to a square pole. Coleworts, for greens, in the same manner, twelve inches apart. Celery, for the latest crop, by the third week. If the weather be dry,

apply water liberally. Never mutilate the plants by cutting the leaves. "Earth up" former plantings timely and carefully. The spade may be used when the plants are strong, and have already been twice earthed.

Propagate sweet herbs by slips and cuttings. Take up garlic, shallots, and onions that are ripe.

Destroy weeds, leave none to spread the evil by seeding, and the most sedulous attention is now required.

Cut vegetable marrows and cucumbers as they come on, leaving none to become ripe. Be particular to gather French beans and runners, for if pods ripen, the bearing of edible pods is checked at once. "Gather beans and have beans," says the old rule.

FRUIT DEPARTMENT.

Raspberries.—Attend first to cut out the brown canes that have borne fruit; then take away slender supernumerary young shoots—air and sun will thus act upon those six or seven good canes which are left to ripen. Burn the dry canes that are pruned out, and scatter the ashes over the raspberry beds. Some condemn this burning, but the earth may beneficially receive back, as soon as possible, the inorganic salts thus developed by fire.

Spur bearing trees on espaliers should be regulated very early by cutting back or snapping the wandering breast or spur wood one-third of their length. By snapping the sap is checked and diverted to the lower buds, while its course is not so fully and suddenly arrested as it is by amputation. The trees are for a time rendered unsightly, but as all must be cut lower back in a few weeks, this is a mere trifle, if the benefit alluded to be taken as a "set off."

Vines may not be shortened, but let the bearing and succession wood be trained in open regular order. Cut off to the lowest bud all weak laterals, stop the leaders,

and thus divert all the power of the main shoots and leaves to the perfecting of the clusters. A few plants of vines may grow on the garden-wall or on a railing.

Make fresh plantations of strawberries, if the season be not dry and parched. The land must be richly prepared with dung, and if possible with a mixture of fresh soil from a vegetable earth, rotted for a time before application. The sets must be healthy and strong, in a dark-green colour, with roots fibrous and spreading, placed six inches apart, in rows that are one foot distant. If dry weather continues, apply water very liberally till the sets

are seen to have struck root. The beds may be six feet wide, and the rows drawn across or lengthwise.

FLOWER GARDEN.

Attend to the routine directions that have been so often given, especially to the gathering of manure, from large weeds cut and chopped into the tank; carths and droppings in the compost-heap, with earthy matters of all kinds. Now re-pot and dress any auricula plants, and pot off seedlings. At the end of the month transplant or introduce evergreens, particularly if the weather be moist.

AGRICULTURAL REPORTS.

GENERAL AGRICULTURAL REPORT FOR JULY.

The weather during the past month has been all that could be desired for the growing crops, and all cereals have made rapid progress. Wheat has improved much in the ear, and has come rapidly to maturity. As we write the harvest is general, and the results, on the whole, are considered satisfactory. No doubt there is a decided deficiency on light and ill-cultivated soils, but the falling off will be made good by the return from well-farmed and heavy lands, on which the wheat plant is remarkably good. The present year has afforded another proof, if one were wanting, that a dry, hot season is the best suited to the development of the wheat plant in this country. We have this year experienced something more nearly approaching to drought than has been the case within recollection. The dryness of 1868 was rather owing to the great degree of heat than to any long-continued absence of rain, but this year less than half the average rainfall occurred during the first six months. While, however, wheat has flourished under this state of things, the spring corn crops have been very differently circumstanced. Barley and oats at one time presented a very poor appearance, but improved considerably under the influence of rain. It is surprising that roots and the corn crops have not suffered more than they have done, but this may be partially explained by the fact that the spring was cold and ungenial, and that the moisture was retained in consequence, and not dissipated by radiation.

When we last wrote there was every appearance of dull markets and declining rates ruling for some time, but since then an element of the greatest uncertainty has been imported into the case. The declaration of war and the threatening aspect of continental politics generally have had the effect of causing a state of excitement in the grain trade which has been rarely equalled. On the news of the declaration of war by France against Prussia becoming known, a panic set in at Mark-lane, and the most extravagant prices were demanded. The prospect of the partial suspension of the import trade and of the total cessation of shipments of fine wheats from the Baltic induced factors to hold very firmly, and millers were at length compelled to pay 5s. to 6s. per qr. more money for English wheat. A similar rise took place in the value of foreign wheat, though in the case of American red wheat the improvement was as much as 8s. per qr. A reaction naturally followed the state of panic, and prices receded towards the close of the month 3s. per qr., leaving wheat about 2s. per qr. dearer than at the opening of July. It was only natural that the favourable harvest prospects and the early date at which the harvest has commenced should influence the quotations in a downward direction.

Although the hay crop in the South of England has proved very unsatisfactory, in the North and in Scotland the yield has been good, while the prospect of a second cut is everywhere encouraging. In Ireland all crops have prospered under the influence of fine weather.

It is believed that feeding stuffs of all kinds will rule firm in value for some time to come. Large quantities have been purchased on French account, and these transactions will no doubt be carried on so long as they are found practicable. One of the most unfortunate features of the war is the fact that the crops in North Germany are outstanding; and it is believed that, owing to the depletion of the labour market, a great portion of them is doomed to destruction.

The accounts from the hop districts were never better, and the yield is looked forward to as an unprecedentedly large one. The bine has seldom been freer from blight, and towards the close of the season the weather forced on its growth rapidly. Consequently the hop trade has been in a state of total suspension, and values have remained quite nominal.

The wool markets suffered much by the withdrawal of French and German buyers from the market and by the check that the yarn trade has suffered from the outbreak of war. Prices are consequently lower, colonial wool having given way 1d. to 2d. per lb.

REVIEW OF THE CATTLE TRADE DURING THE PAST MONTH.

There has been an absence of any important feature in the cattle trade during the past month. The commencement of hostilities between France and Prussia, and the prospect of a curtailment of our foreign receipts at one time tended to impart strength to the market, and to promote a higher range of values. However, the increased liberality of the arrivals from our own grazing districts caused a reaction to set in, and the advance was lost. Although some really fine stock has been received from Lincolnshire, the bulk of the arrivals have come to hand in but indifferent condition. Certainly, during the past week a tendency to improvement has been apparent; but there is still a comparative scarcity of choice stock. In Scotland, on the other hand, owing to the plentiful supply of grass, cattle have fared well, and the few beasts which have been sent to market have been well-conditioned animals. As regards trade, really prime beasts have been in request, and have at one time made 5s. 6d. per 8 lbs. At the present moment the extreme quotation does not exceed 5s. 4d.; whilst many good serviceable animals are being disposed of at 4s. 10d. to 5s. per 8 lbs.

The show of sheep has been equal to the average so far as numbers have been concerned; but the quality has been but middling. During the earlier part of the month the trade was weak, and there was a tendency to lower rates. Subsequently, there was a reactionary movement, and the value of the best Downs and half-breeds recovered to 5s. 4d. to 5s. 6d. per 8 lbs. But, at the same time, transactions have been effected in good breeds at 5s. per 8 lbs.

Lambs have been quiet and without change in value.

For calves, the supply of which has been good, there has been very little inquiry, and the business doing in pigs has been unimportant.

The hay crop in the southern counties has proved sadly deficient; but farther north the yield has been much better. The recent rains give promise of a second crop, but in no case will it be heavy. The root crop promises to turn out well. On the whole, so far as can be discerned from present prospects, fodder will be scarce during the winter months.

The total supplies of stock exhibited and disposed of at the Metropolitan Cattle Market have been as follows:

Beasts	24,843	Head.
Sheep and Lambs...	211,610	
Calves	5,350	
Pigs	1,155	

COMPARISON OF SUPPLIES.

July	Beasts.	Sheep and Lambs.	Calves.	Pigs.
1869	20,340	176,880	4,185	1,129
1868	21,312	195,250	3,938	1,360
1867	18,590	136,480	3,117	1,755
1866	21,710	158,990	3,778	2,120
1865	26,010	149,900	5,757	2,480
1864	27,394	147,890	4,658	3,140
1863	21,070	169,870	3,822	2,682
1862	22,392	151,060	2,339	2,632
1861	19,740	156,140	3,532	3,240
1860	19,870	153,600	3,133	2,428
1859	19,600	166,632	3,609	2,430
1858	20,468	154,922	4,262	3,290

The arrivals of bullocks from our own grazing districts, as well as from Scotland and Ireland, thus compare with the three previous years:

From—	July, 1867.	July, 1868.	July, 1869.	July, 1870.
Norfolk, Suffolk, &c.....	2,500	1,800	300	1,100
Lincolnshire, Leicestershire, &c.,	2,860	6,600	5,300	4,800
Other parts of England.....	3,370	3,700	2,020	2,800
Scotland	324	96	47	97
Ireland	80	170	450	120

The total imports of foreign stock into London have been as under:

	1863.	1869.	1870.
Beasts	6,037	8,784	6,806
Sheep and Lambs.....	24,905	30,772	37,991
Calves	2,282	4,669	4,340
Pigs	2,316	3,349	3,230

Beasts have sold at from 3s. 2d. to 5s. 6d., sheep 3s. 4d. to 5s. 6d., lambs 6s. 4d. to 7s., calves 3s. 10d. to 5s. 6d., and pigs 4s. 6d. to 5s. 8d. per 8lbs. to sink the offal.

COMPARISON OF PRICES.

	July, 1868.		July, 1869.	
	s. d.	s. d.	s. d.	s. d.
Beef from	3 0	5 0	3 0	5 8
Mutton	3 0	5 0	3 0	5 8
Lamb	5 0	6 0	5 6	6 0
Veal	3 6	5 0	4 6	5 8
Pork	3 2	4 4	3 10	5 2

The dead meat markets have been moderately supplied with meat. The trade, generally, has been quiet. Beef has sold at from 3s. 6d. to 5s., mutton 3s. 6d. to 5s. 2d., lambs 5s. to 5s. 10d., veal 4s. 8d. to 5s., and pork 4s. to 5s. 4d. per 8lbs. by the carcase.

AGRICULTURAL INTELLIGENCE,
FAIRS, &c.

BANBURY FAIR.—There were a good many sheep, but business seemed sluggish, the best bringing about 5s. per stone. The supply of cattle was not large, neither was the business great.

PRIZES AT BASINGSSTOKE FAIR.—For the largest number of sheep and lambs as a breeder, the same having been in the possession of the exhibitor prior to the 1st of March last, a piece of plate, value 20 gs., to T. Moore, Viables Farm, near Basingstoke; to the breeder who shall pen the second largest number, a cup, value 5 gs., J. Portsmouth, Basingstoke. For the best pen of 100 Hampshire Down wether lambs, bred and fed by the exhibitor (the breeding flock to consist of not less than one-fourth two-tooth ewes), 10 gs. to A. Budd, Overton; second, 5 gs., J. Wigg, Basingstoke. For the best pen of not less than 40 wether lambs of any breed, bred and fed by the exhibitor from a flock of ewes not exceeding 410, such pen to be taken in proportion of 10 to every 50 ewes, 5 gs. to G. Twitchee, Wortling Wood Farm; second, 3 gs., J. Palmer, Cliddesden. For the best pen of ewes, the whole of which shall have been fed by the exhibitor from the 31st of October, 1869, such pen to consist of not less than 50 nor more than 100, taken in proportion of 10 to every 50 ewes kept by the exhibitor, 10 gs. to F. Budd, Hatch-warren. For the best pen of 100 two-tooth ewes of any breed, having been in the possession of the exhibitor from the 1st of January last, 10 gs. to J. Lunn, Preston Candover. For the best pen of 100 wether sheep of any breed, which shall have been in the possession of the exhibitor prior to the 1st of

March last, 5 gs. to J. Wigg, of Skyer's farm; second, 3 gs., A. F. Bradby, Preston Candover. For the best Hampshire Down ram of any age, 5 gs. to J. Moore, Littlecot, Pewsey, Wilts. For the best pen of not less than five Hampshire Down ram lambs, taken in proportion of 2 to every 100 ewes kept by the exhibitor, 5 gs. to F. Budd. For the best ram of any age not being of the Hampshire Down breed, 5 gs. to Mrs. E. Cliff, Sherborne St. John; second, £2 10s., J. Wheeler, Long Compton, Shipston-on-Stour, Oxfordshire.

BOSTON FAT SHEEP MARKET.—A fair supply, which met a tolerably brisk demand, at from 7d. to 8d. per lb. There were several buyers from the North present again.

BRISTOL COLT FAIR.—A fair trade was done, 30 guineas being the highest price realized. There were some capital Irish nags, and they realized high prices, from 40 to 50 guineas being given for first-rate ones. The cart-horses and mares were poor, and trade was dull owing to the shortness of keep.

BROMYARD FAIR.—The supply of store stock was very small; but small as it was it was fully equal to the demand, there being no purchasers, and the greater part being driven home unsold. Cows and calves were more plentiful, but for want of keep only a few changed hands. No fat beef. Sheep were plentiful; fresh ewes brought 7d. and wethers and lambs 8d. per lb. There was a large supply of pigs, which sold upon easier terms. The fair was altogether a very dull one, very little business being done.

PORT-WILLIAM SHEEP MARKET.—Gleninnan and Glenaladale blackfaced wethers 31s., Beach blackfaced lambs £11 15s. per clad score, Lettermore blackfaced wethers £27, Acharn blackfaced ewes £24, slack ewes £14, wethers 27s., shot lambs £6, Beneveicht blackfaced wethers 33s. 6d., Achyhair Duror wethers £23, ewes £12, Achuaone wether lambs 10s., mid ewe lambs 8s. (shotts deferred), Auchintee wethers 31s., Appin wether lambs 9s. 9d., Lundavra slack ewes £17, Inchree do. £15, Auchindal wether lambs £12, Kenlochmoidart three-year-old wethers 30s., Dalness do. 29s., Keil Ardour wethers £29, Corunan ewes £17, Crigan two-year-old wethers £21, Frinisgaig ewes £12, Mr. Anderson's Oak Bank Mull Cheviot top wether lambs £13, South Corrie Kenloch Gairloch two-year-old wethers £19 10s., shot lambs £4, Kinloch Arasaig wethers £25, Glenmore Ardnamurchan shott lambs £6, Strathmashe and Shirra Beg ewes £18, Moy Lochaber Cheviot wether lambs £13, Cruben Beg slack blackfaced ewes £17, do. three-year old wethers £30, Glennevis ewes £17 10s., wethers £31 10s., Guishean three-year-old wethers £26 10s., Bar Blaroch Morrar top wether lambs £9 10s., Gorstenferm Ardnamurchan three-year-old blackfaced wethers £25, Bohintin yeld ewes £26, Glenmage Ardnamurchan top wether lambs £10 5s., east ewes £4 10s., shott lambs £6, Kenloch three-year-old wethers £33.

GRANTHAM FAT STOCK MARKET.—A very good show of stock; business dull. Beef 8s. to 8s. 6d. per stone, mutton 7d. to 7½d. per lb.

HORSHAM FAIR.—There were about 10,000 sheep and lambs penned. The highest price made for lambs was 36s. for a pen of 150, belonging to the Messrs. E. and R. Emery, of Hurston-place, Storrington. This was 1s. per head higher than any other sheep in the fair.

LINCOLN FAT STOCK MARKET.—A good supply and brisk trade, beef making 8s. to 9s. per stone, and mutton 7½d. per lb.

OVERTON FAIR.—On ordinary occasions 60,000 to 70,000 sheep and lambs are penned, but on this it was from 10,000 to 15,000 short. There was a brisk sale at the commencement of the day, and some thousands were speedily disposed of; but later the sale declined, and became somewhat dull, though a good clearance was effected. Average lambs fetched from 2 1s. to 36s., choice from 30s. to 40s., Mr. R. Awbery penned some which realised 37s. each. Mr. F. Budd's 100 ewes fetched 66s. Ewes averaged from 30s. to 45s., and wethers from 38s. to 48s.

PRIZES AT THE OVERTON (HANTS) FAIR.—The judges were E. Olding of Woodford, T. Gerish of Upton, and T. Moore of Viables Farm, Basingstoke. Best pen of 100 wether lambs, Mr. A. Budd; best pen of wether lambs, Mr. J. Wigg; second, Mr. G. Twitchee; best pen of ewes, Mr. T. Budd; second, Mr. A. Budd; best ram, Mr. J. Moore; best pen of ram lambs, Mr. F. Budd.

ST. BOSWELLS FAIR.—As compared with the prices

current at last year's fair, those obtained to-day were considerably up. The best class of lambs may be quoted at from 29s. to 36s., and the second lots at from 23s. to 28s. 6d. Last year the highest price was 31s.; so that on the top there is an increase of 5s. The general advance would range from 3s. to 5s., though in some instances a greater rise was reported; but then when this occurred the lots were considered to be of better quality than the lots from the same herself were last year. This market was not a very profitable one for dealers, and it was only from farmers that information as to prices could be obtained.

SALISBURY SHEEP FAIR was the largest ever held there, about 10,000 sheep being penned, which was about 1,000 more than last year's fair, and probably 2,000 in excess of the average number. Trade, however, was dull, and in the course of the day lower prices had to be submitted to in several cases before sales could be effected. Good useful lambs were sold at from 18s. to 25s., superior ones realizing as high as 49s., ewes 25s. to 35s., and wethers 35s. to 45s., a few lots fetching even higher prices. Mr. James Rawlence, of Balbridge, sold a pen of 100 splendid ewes to Mr. Bishop, a dealer of Southall, for 55s. a head, the lot having carried off Dr. Lush's prize, as the best pen in the class in which they were exhibited. Mr. Carpenter, of Lake, obtained 42s. for the pen with which he took the second prize in the same class, and Mr. Walter Young sold a lot which did not take a prize for 43s. Mr. Reed, of New Court, obtained 35s. 6d. for a very good lot of ewes. Mr. F. Tabor sold some lambs for 32s. Mr. James Rawlence sold his fourth lot of 100 cull lambs at 30s.

PRIZES AT THE SALISBURY SHEEP FAIR.—The judges were J. Marsh (Stratford), Mr. Compton (Fisherton Delamere), and Mr. Attwater (Britford). A piece of plate, value £5, for the best pen of improved Hampshire Down ram lambs in the proportion of two to every 100 ewes, kept and

put to tup the previous year, not less than four, nor more than ten lambs from one flock: First prize, Mr. Moore, Lielteott; second of £3, Mr. Dibben, Bishopstone. A piece of plate, value £5, for the best pen of 80 wether lambs, bred by the exhibitor, from any flock, not exceeding 400 breeding ewes, or of 100 lambs from any flock exceeding that number: First prize, J. Fleetwood, Coombe; second, Mr. Higgins, Great Wishford. A piece of plate, value £5, for the best pen of 80 wether sheep, having been at least for three months in the possession of the exhibitor, from any flock not exceeding 400 wether sheep, or 100 from any flock exceeding that number: Prize, J. Harding, Speckington. A piece of plate, value £5, for the best pen of 80 breeding ewes, good on tooth, and having been at least for six months in the possession of the exhibitor, from any flock not exceeding 400 breeding ewes, or of 100 from any flock exceeding that number: First prize, Mr. Rawlence, Balbridge; second, Mr. Carpenter, Lake. A piece of plate, value £5, for the best Hampshire Down ram of any age: J. Moore. A piece of plate, value £5, to the largest penner: J. Thatcher, Stoford. A piece of plate, value £5, to the largest purchaser: Mr. Meaking, of Cambridgeshire.

SHERBORNE FAIR.—The threatened rain held off, and there was consequently no inducement to do business in the few lots of sheep offered (about half the usual average). Beasts were also scarce and business feeble.

SLEAFORD FAT STOCK MARKET.—A very large and first-class show of fat beasts, which were sold at a shade less than the extreme rates of last week. Good show of sheep, which met with a brisk trade. Best beef realised from 9s. to 9s. 3d., second quality from 8s. 3d. to 8s. 9d. per stone; mutton from 7½d. to 8d. per lb., lambs from 25s. to 35s. each.

SPLISBY FAIR.—There was only a small number of fat beasts, which sold readily at 9s. per stone; well-fed sheep made 8d. per lb. Store beasts, of which there were several of good quality, were a drug, and could not be converted into cash.

REVIEW OF THE CORN TRADE DURING THE PAST MONTH.

The month commenced with refreshing showers which soon left their mark upon the meadows, though not heavy or of long continuance, but after the first week hot dry weather returned, and cut off the hopes of a second crop of grass, though greatly facilitating the maturity of the corn. Some quantity of oats has already been gathered, also of peas, barley, and also Talevera wheat, and we are brought to the eve of our general gatherings. These prospects at the outset of the month began to curtail the late advance occasioned by foreign exports, but suddenly a war cloud has burst upon us from the nation needing our supplies, exciting a panic on the Stock Exchange and producing on our corn markets a scene of wildness that reminds us of former times. On the third Monday the entire aspect of prices was changed for every description of corn. Wheat then rose 6s. to 7s., and nearly all spring corn 2s. to 3s. The latter has sustained its then value, but the wheat trade only one week after the sudden and heavy advance, showed symptoms of a reaction, and English became so difficult to sell that prices could not be considered more than nominal, holders of foreign consenting to a reduction of 2s. to 3s. per qr., with but little doing at that. Very large sales of floating cargoes were made at the advance, and as things now look these purchases have a prospect of leaving a loss, but the chapter of accidents now that war has commenced and harvest is coming on may set matters right. Rumours have now become so much the order of the day that prices have been quite unsettled, but after all the nominal rates are not extravagant, and may yet be surpassed. The Government reports of the crop in America represent the wheat harvest as being about six million quarters less than in 1869,

and from California less is to be expected than previously received. So our range of prices, independently of any political calculations, does not seem likely to be a low one, more especially as spring corn will be deficient and dear, and hay still more so. They are in full harvest in France, but scarcely an average is expected, nor is it in many parts of Germany where the long and trying winter did much damage. War may greatly add to this, and so none can divine for the future, while we would sincerely hope that our own country will keep clear of the tremendous conflict expected. The prices lately quoted abroad were as follows: White wheat at Paris 64s., red 60s.; white at Bordeaux 52s. 6d.; wheat at Courtrai (Belgium) 54s., at Liege 60s., Antwerp and Brussels 62s., mixed Polish at Amsterdam 56s., white Zealand at Rotterdam 53s., marks at Hambro' 47s., Wahren 50s. 6d., at Romanshorn 57s. 6d., at Porrentruy 56s., at Stettin 45s. to 50s., at Pesth fine red to 46s., at Cologne 51s. free on board, fine new at Danzig 60s. cost freight and insurance, fine old to 65s. c. f. and i.; soft at Algiers 53s., hard 46s.; No. 2 Milwaukee at New York 48s. cost freight and insurance per 480lbs.

The first Monday in Mark Lane commenced on small supplies of English wheat, with only moderate arrivals of foreign. The show of fresh samples from Essex and Kent was very scanty, but with favourable weather trade was dull, at a decline of 1s. to 2s. per qr. The sale of foreign was also very limited, and all descriptions were reduced in value to the same extent. Though few cargoes were on the coast they were more than sufficient for the demand, with prices pointing downwards. A decline for a fortnight past having been submitted to in the country, far-

mers in some places resisted any further reduction, but still there were sellers at 1s. less at Sleaford, Wakefield, Market Rasen, Stockton, and Gloucester; and other towns followed the London reduction, as Birmingham, Leeds, Ipswich, Rotherham, Wolverhampton, and Bristol; Liverpool only gave way 1d. to 2d. per cental for the week. Wheat, both at Glasgow and Edinburgh, gave way 1s. per qr. Native wheat at Dublin was not lower but dull, foreign was 6d. to 1s. per barrel cheaper.

On the second Monday the English supply was small, but the foreign was considerable. The show of fresh samples from the near counties was very limited. The circumstance of rumours of war on the Continent prevailing saved the market from a further fall, which seemed imminent on Friday, though millers were not eager buyers. The foreign trade hardened from the threatening state of politics, though business was but on a moderate scale, at the previous Monday's rates. With an increase of cargoes off the coast holders were asking higher rates, which prevented extensive business. With more warlike appearances as the week wore on, partly checked by the near approach of harvest and very fine weather, there was but little difference noted in the country wheat trade. Though some places where war was supposed probable demanded higher rates, others who did not credit it were willing to make some concession. Liverpool, always excitable, rose 2d. on Tuesday per cental, and a like advance was realized on Friday; and on that day in London there were few sellers unless at an advance of 2s. or 3s. per quarter. Glasgow was again up 1s. per qr. for wheat, and Edinburgh was about 6d. per qr. dearer. Wheat at Dublin was decidedly 6d. per barrel dearer.

On the third Monday the English supplies were rather better, and the foreign less, though good. Few fresh samples were exhibited on the Essex and Kentish stands. The news of a declaration of war by France against Prussia made a very wild market. Holders of English scarcely knew what to ask; many demanded 10s. more, some 7s., and as much as the last was really paid, though the average rise for home-grown qualities could scarcely be stated as over 5s. to 6s. With greater variety in foreign, and a possible entrenchment of supplies, as much as 8s. more was in some instances paid, while some were offering at 5s. advance, and of course did not exceed it. Business was in fact nearly paralysed, and prices very irregular. For cargoes afloat 5s. per qr. increase was demanded. The country markets this week were in some instances wilder than London. At Bury St. Edmunds, Bristol, and Brigg 10s. more was reported to have been paid for fine qualities; 5s. to 8s. was commonly insisted on, and the more moderate places, as Hull and Thirsk, were 4s. to 5s. dearer. Liverpool, after a rise of 1s. 6d. per cental on Tuesday, gave way on Friday 3d. per cental, and London then evinced symptoms of reaction, as France, the country actually at war, did not quote such an advance as England. Glasgow was 3s. 6d. to 4s. per boll dearer, and Edinburgh nearly as much. Dublin noted a rise of 3s. to 4s. per brl. on native and foreign samples.

On the fourth Monday the English arrivals were moderate; those from abroad plentiful. The show of fresh samples from Kent and Essex was limited; among the latter appeared a very dry sample of new Talavera, held at 63s. The entire trade was unhinged, a reaction having set in since the previous Monday, as even the French markets had not advanced so heavily as our own. Though Monday's rates were asked, there were no buyers; and so prices were nominal. As regards foreign, some holders—who in the previous week were more moderate in their views than others—were able to sell in retail at about previous rates; but they were generally 2s. to 3s. per qr. lower.

The imports for four weeks into London were 18,197 qrs. English wheat, 112,214 qrs. foreign; against 14,916 qrs. English, 116,324 qrs. foreign for the same period last year. The London exports in four weeks were 23,650 qrs. wheat, 6,498 cwts. flour. The imports into the kingdom for four weeks ending July 16, were 1,945,632 cwts. wheat, 309,682 cwts. flour. The general averages commenced at 50s. 5d., and closed at 49s. 8d. Those of London commenced at 52s. 9d., and ended at 55s. 6d. per qr.—showing that all these sales had been made before the declaration of war.

The flour trade, which had previously worn a dull aspect, had a sudden start on the third Monday, when the French declaration of war was known. Country, as well as foreign sacks then instantly rose 4s. per sack, and even barrels as much; while town millers put up the price of town qualities from 47s. to 51s. On the last Monday, however, there was a great calm, and holders of country and foreign sorts were ready to concede fully 1s. per sack and barrel, or even more. The imports into London for four weeks were 53,405 sacks country made, 5,149 sacks 39,253 barrels foreign, against 66,647 sacks English, 21,716 sacks, 38,908 barrels foreign in 1869.

The supplies of maize have only been moderate throughout the month, and fine qualities have risen 3s. to 4s. per qr., making extra yellow worth about 36s. and extra white 37s. The imports into London for four weeks were 22,141 qrs., against 48,374 qrs. in 1869.

The receipts of barley of our own growth have been exceedingly small, the crop being pretty well exhausted; but there has been an increase in foreign descriptions, chiefly for grinding purposes. This trade has been animated by the poor accounts in some places of the crops and the lively French demand which has taken off 9,570 qrs. during the month. Nothing can now be had under 28s. per qr. for grinding, and good sorts are worth 30s.; but malting descriptions were only of nominal value. The imports into London for four weeks were 564 British, 47,118 qrs. foreign, against 1,267 qrs. British, 14,811 qrs. foreign in 1869.

The malt trade, on the whole, has been steady, and after losing a shilling in value at the commencement of the month, recovered it on the rise in barley.

As regards the oat trade the first Monday commenced with a decline, which was recovered on the second; then came the declaration of war, causing a rise of 2s. to 3s. per qr.; and the Monday following brought a further increase of value of 6d. to 1s. per qr., from the effects of the drought and the large exports to France, which in the month, from London alone, reached to 70,205 qrs. Coarse Russians, weighing 38lbs., have become worth 26s. 6d. per qr., and fine Petersburg 29s. Swedes of great weight 30s. and over. The imports into London for four weeks were 2,177 qrs. English, 1,060 qrs. Irish, 213,081 qrs. foreign, against 2,090 qrs. English, 3,503 qrs. Irish, 179,081 qrs. foreign last year.

Beans throughout the month have been in moderate supply, and advanced on the third Monday 1s. to 2s. per qr.; but the time of year being against the sale, and maize being relatively cheaper, the demand has not been extensive. The poor appearance of the growing crop serve, however, to keep up values, as well as the small imports. The London receipts during four weeks were 1,338 qrs. English, 1,896 qrs. foreign, against 636 qrs. English, 1,520 qrs. foreign for the same time in 1869.

Though of English peas the supply was only half that of beans, the foreign arrivals have lately considerably increased, chiefly in white sorts of medium quality only fit for feeding, from the Baltic and Montreal. Such have only increased in value about 1s. per qr., fair sorts being worth 38s. to 39s., fine boilers to 42s. The imports into London for four weeks were 629 qrs. English, 16,739 qrs.

foreign, against 125 qrs. English, 10,263 qrs. foreign in 1869.

The arrivals of Linseed have been quite on a small scale, and seem likely to be limited. Prices therefore have advanced 2s. per qr., and cake from the drought has increased in value 5s. to 10s. per ton.

All sorts of agricultural seeds have been held at high rates, though the dry weather in France has so prevented the sowing of trifolium incarnatum that, notwithstanding a very short crop, it has become cheaper.

CURRENT PRICES OF BRITISH GRAIN AND FLOUR IN MARK LANE.

	Shillings per Quarter.
WHEAT, new, Essex and Kent, white..... (nominal) 53 to 60	
red.....	52 56
Norfolk, Lincolnsh., and Yorksh.....	52 56
BARLEY..... 32 to 36..... Chevalier.....	40 46
Grinding..... 31 34..... Distilling.....	37 41
MALT (nominal), Essex, Norfolk, and Suffolk.....	62 71
Kingston, Ware, and town-made.....	62 71
Brown.....	49 56
RYE.....	36 38
OATS, English, feed 25 to 32..... Potato.....	29 36
Scotch, feed..... 00.....	00 00
Irish, feed, white..... 23.....	26 29
Ditto, black..... 23.....	27 32
BEANS, Mazagan..... 42.....	46.....
Harrow..... 44.....	49.....
PEAS, white, boilers..... 40.....	44.....
FLOUR, per sack of 280lbs., Town, Households, nom. 48 54	
Country, on shore..... 37 to 39.....	41 42
Norfolk and Suffolk, on shore.....	36 38

FOREIGN GRAIN.

	Shillings per Quarter.
WHEAT, Danzig, mixed..... 55 to 56..... extra.....	60 to 62
Königsberg..... 53.....	55 55
Rostock..... 53.....	54.....
Silesian, red..... 50.....	52.....
Pomera., Meckberg., and Uckermark..... red.....	52 54
Russian, hard, 44 to 46..... St. Petersburg and Riga.....	47 50
Danish and Holstein, red 50 53..... American 52 53	
Chilian, white 58..... Californian 58..... Australian 58 61	
BARLEY, grinding 29 to 34..... distilling and malting 37 43	
OATS, Dutch, brewing and Poland 25 to 33..... feed 22 28	
Danish and Swedish, feed 25 to 29..... Stralsund.....	25 29
Canada 23 to 26, Riga 24 to 27, Arch. 24 to 28, P'sbg. 27 29	
TARES, Spring, per qr..... small 38 47..... large 47 50	
BEANS, Friesland and Holstein.....	44 46
Königsberg..... 40 to 46..... Egyptian.....	41 43
PEAS, feeding and maple..... 40.....	42.....
INDIAN CORN, white..... 32.....	34.....
FLOUR, per sack, French, 42.....	41.....
American, per brl..... 23.....	25.....

IMPERIAL AVERAGES.

For the week ended July 16, 1870.

Wheat.....	38,318 ¹ / ₂ qrs.	49s. 8d.
Barley.....	592 ¹ / ₂ "	31s. 2d.
Oats.....	1,423 "	25s. 6d.

COMPARATIVE AVERAGES.

Years.	WHEAT.		BARLEY.		OATS.	
	Qrs.	s. d.	Qrs.	s. d.	Qrs.	s. d.
1866...	32,481 ¹ / ₂	54 0	311 ¹ / ₂	33 5	1,191 ¹ / ₂	26 2
1867...	27,393 ¹ / ₂	65 1	637 ¹ / ₂	35 1	1,459 ¹ / ₂	28 4
1868...	25,642 ¹ / ₂	65 0	253 ¹ / ₂	37 4	1,024 ¹ / ₂	30 11
1869...	39,365 ¹ / ₂	60 2	283 ¹ / ₂	32 0	659	26 0
1870...	33,318 ¹ / ₂	49 8	592 ¹ / ₂	31 2	1,423	25 6

AVERAGES

FOR THE LAST SIX WEEKS:

	Wheat.		Barley.		Oats.	
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
June 11, 1870.....	46 1	33 1	32 0	22 0		
June 18, 1870.....	48 0	32 5	32 0	25 0		
June 25, 1870.....	50 5	33 5	32 0	25 1		
July 2, 1870.....	51 6	32 0	32 0	25 10		
July 9, 1870.....	50 7	30 3	32 0	25 8		
July 16, 1870.....	49 8	31 2	32 0	25 6		
Aggregate of the above...	49 8	32 1	32 0	24 10		
The same week in 1869.....	50 2	32 0	32 0	26 0		

FLUCTUATIONS IN THE AVERAGE PRICE OF WHEAT.

Price.	June 11.	June 18.	June 25.	July 2.	July 9.	July 16.
50s. 7d.
51s. 6d.
50s. 5d.
49s. 8d.
48s. 0d.
46s. 1d.

BRITISH SEEDS.

MUSTARD, per bush., brown 13s. to 16s., white 13s. to 15s.	
CANARY, per qr.....	60s. 68s.
CLOVERSEED, red.....	64s. 70s.
CORIANDEE, per cwt.....	21s. 22s.
TARES, winter, new, per bushel.....	7s. 8s.
TREFOIL.....	36s. 38s.
RYEGRASS, per qr.....	28s. 30s.
LINSEED, per qr., sowing 70s. to 72s., crushing 58s. 64s.	
LINSEED CAKES, per ton.....	£11 5s. to £11 15s.
RAPESEED, per qr.....	76s. 80s.
RAPE CAKE, per ton.....	£5 15s. 0d. to £6 5s. 0d.

FOREIGN SEEDS.

CORIANDEE, per cwt.....	21s. to 22s.
CARAWAY.....	48s. 50s.
CLOVERSEED, red 51s. to 62s., white.....	72s. 82s.
HEMPSEED, small 41s. to 45s. per qr..... Dutch	46s. 48s.
TREFOIL.....	26s. 28s.
RYEGRASS, per qr.....	26s. 30s.
LINSEED, per qr., Baltic 58s. to 62s., Bombay 63s. 64s.	
LINSEED CAKES, per ton.....	£11 5s. to £11 15s.
RAPESEED, Dutch.....	72s. 76s.

HOP MARKET.

Mid and East Kents.....	£7 0	£9 5	£12 12
Wealds.....	6 0	7 0	8 0
Sussex.....	5 12	6 6	6 13
Bavarians.....	6 6	7 7	9 0
French.....	5 0	5 15	6 10
Americans.....	4 5	5 5	6 0
Yearlings.....	1 10	2 10	3 10

POTATO MARKETS.

BOROUGH AND SPITALFIELDS.	
English Shaws.....	80s. to 100s. per ton.
Regents.....	100s. to 120s. "
French.....	70s. to 90s. "

PRICES OF BUTTER, CHEESE, HAMS, &c.

BUTTER, per cwt.: s. s.	CHEESE, per cwt.: s. s.
Dorset..... 130 to 134	Cheshire..... 74 to 84
Friesland..... 114 116	Dble. Gloucester..... 60 72
Jersey..... 104 110	Cheddar..... 74 90
Wessex, per doz. 15 17	American..... 60 70
BACON, per cwt.:	HAMS: York, old..... 104 112
Wiltshire, green..... 74 78	Cumberland..... 102 112
Irish, f.o.b. 70 78	Irish, new..... 83 116

GLASGOW, (Wednesday last).—A large supply of cheese, which caused sellers in some cases to make slight concessions in order to effect sales. A good many left over unsold. Cheddars (old) 65s. to 70s. per cwt., ditto (new) 50s. to 55s.; Dunlops (old) 63s. to 69s., ditto (new) 48s. to 52s.; skim-milk 18s. to 22s.

CORDEROY & CO'S CHEESE CIRCULAR, Thursday July 21.—Since our last circular was issued, the chief topic of conversation in commercial and other circles has been the disastrous news of impending war on the continent of Europe. The immediate effect of the tidings upon the provision market here has been to raise the value of bacon and pork, in anticipation of shorter supplies from abroad, and to lower the price of Dutch cheese, of which large quantities are being hurried forward to this market. What further results will follow we cannot venture to predict.

POULTRY, &c., MARKETS.—Goslings, 5s. to 6s.; Ducks, 1s. 6d. to 2s.; Irish, 1s. to 1s. 6d.; Ducklings, 2s. to 3s.; Surrey Fowls, 4s. to 7s.; Sussex ditto, 2s. 9d. to 3s. 6d.; Boston and Essex, 1s. 9d. to 3s.; Irish, 1s. to 1s. 9d.; Rabbits, tame 1s. to 1s. 6d., ditto wild 6d. to 9d.; Pigeons, 6d. to 9d. Eggs, best 8s. 6d., seconds 7s. per 120.

ENGLISH WOOL MARKET.

	s. d.	s. d.
CURRENT PRICES OF ENGLISH WOOL.		
FLEECES—Southdown hogs..... per lb.	1 0	to 1 0 ¹ / ₂
Half-bred ditto.....	1 2	1 3
Kent fleeces.....	1 2	1 3
Southdown ewes and wethers.....	1 0	1 0 ¹ / ₂
Leicester ditto.....	1 1	1 2
SORTS—Clothing, picklock.....	1 4	1 4 ¹ / ₂
Prime.....	1 2 ¹ / ₂	1 3
Choice.....	1 1	1 2
Super.....	1 0	1 0 ¹ / ₂
Combing, wether mat.....	1 3	1 3 ¹ / ₂
Picklock.....	1 0 ¹ / ₂	1 1

THE FARMER'S MAGAZINE.

AUGUST, 1870.

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No. 3, Vol. XXXVIII.]

SEPTEMBER, 1870.

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SEPTEMBER, 1870.

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ESTABLISHED 1836.

Subscribed Capital, £2,500,000, in 50,000 Shares of £50 each.

Paid-up Capital, £1,000,000. Reserved Fund, £500,000.

DIRECTORS.

Nathaniel Alexander, Esq. | Frederick Harrison, Esq.
Thos. Tyringham Bernard, Esq. | Lord Alfred Hervey,
Philip Patton Blyth, Esq. | William Champion Jones, Esq.
John William Burmester, Esq. | Edwd. Harbord Lushington,
Thomas Stock Cowie, Esq. | Esq.
Frederick Francis, Esq. | James Morley, Esq.
 | William Nicol, Esq.

GENERAL MANAGER.—William McKewan, Esq.

CHIEF INSPECTOR.—W. J. Norfolk, Esq.

INSPECTORS OF BRANCHES.—H. J. Lemon, Esq., and C. Sherring, Esq.

CHIEF ACCOUNTANT.—James Gray, Esq.

SECRETARY.—F. Clappison, Esq.

HEAD OFFICE.—21, Lombard-street.

MANAGER.—Whitbread Tomson, Esq.

ASSISTANT MANAGER.—William Howard, Esq.

At the Half-yearly General Meeting of the Proprietors, held on Thursday, the 4th August, 1870, at the City Terminus Hotel, Cannon-street Station,

The following Report for the half-year ending the 30th June, 1870, was read by the Secretary.

WILLIAM CHAMPION JONES, Esq., in the Chair.

The Directors, in presenting to the Proprietors the Balance-Sheet of the Bank for the Half-year ending the 30th June last, have the satisfaction to report that, after paying interest to customers and all charges, allowing for rebate, and making provision for bad and doubtful debts, the net profits amount to £83,285 6s. 11d. This sum, added to £8,895 17s. 5d. brought forward from the last account, produces a total of £92,181 4s. 4d.

They have declared the usual dividend of 6 per cent., with a bonus of 2½ per cent. for the half-year, free of income-tax (being at the rate of 17 per cent. per annum), which will absorb £85,000, and leave £7,181 4s. 4d. to be carried forward to profit and loss new account.

Mr. John William Burmester, after 15 years' service, has requested, on account of his advanced age, to be relieved from office as one of the Trustees of the Bank, and Mr. Frederick Harrison, a Director, has been elected in his stead.

The dividend and bonus (together £1 14s. per share) will be payable at the Head Office, or at any of the Branches, on and after Monday, the 15th instant.

BALANCE-SHEET of the LONDON and COUNTY BANKING COMPANY, 30th June, 1870.

Dr.	
To capital paid up	£1,000,000 0 0
To reserve fund	500,000 0 0
To amount due by the Bank for customers' balances, &c. 13,371,794 4 5	
To liabilities on acceptances, covered by securities.....	1,880,716 4 6
	<hr/>
To profit and loss balance brought from last account..	8,895 17 5
To gross profit for this half-year, after making provision for bad and doubtful debts, viz.....	253,259 18 1
	<hr/>
	262,155 15 6
	<hr/>
	£17,014,666 4 5

Cr.

By cash on hand at Head-office, and Branches, and with Bank of England.....	£2,038,557 13 9
By cash placed at call and at notice, covered by securities.....	1,605,635 7 9
	<hr/>
	£3,644,193 1 6

Investments, viz.:

By Government and guaranteed stocks	1,378,222 7 6
By other stocks and securities	72,661 4 4
	<hr/>
	1,450,883 11 10

By discounted bills, and advances to customers in town and country	9,637,856 11 4
By liabilities of customers for drafts accepted by the Bank (as per contra)	1,880,716 4 6
	<hr/>
	11,518,572 15 10

By freehold premises in Lombard Street and Nicholas Lane, freehold and leasehold property at the branches, with fixtures and fittings	249,322 19 4
By interest paid to customers.....	43,991 14 6
By salaries and all other expenses at head-office and branches, including income-tax on profits and salaries.....	107,702 1 5
	<hr/>
	£17,014,666 4 5

PROFIT AND LOSS ACCOUNT.

To interest paid to customers, as above.....	£43,991 14 6
To expenses, ditto.....	107,702 1 5
To rebate on bills not due, carried to new account.....	18,280 15 3
To dividend of 6 per cent. for the half-year....	60,000 0 0
To bonus of 2½ per cent.	25,000 0 0
To balance carried forward.....	7,181 4 4
	<hr/>
	£262,155 15 6

By balance brought forward from last account	£8,895 17 5
By gross profit for the half-year, after making provision for bad and doubtful debts.....	253,259 18 1
	<hr/>
	£262,155 15 6

We, the undersigned, have examined the foregoing balance-sheet, and have found the same to be correct.

(Signed) WM. JARDINE,
WILLIAM NORMAN,
R. H. SWAINE, } Auditors.

London and County Bank, July 28, 1870.

The foregoing Report having been read by the Secretary, the following resolutions were proposed, and unanimously adopted:

1. That the report be received and adopted, and printed for the use of the Shareholders.

2. That the remuneration of the Auditors be increased from £100 per annum to £150 per annum, to take effect from the 1st of January last.

3. That the thanks of this Meeting be given to the Board of Directors for the able manner in which they have conducted the affairs of the Company.

(Signed) W. CHAMPION JONES, Chairman.
The Chairman having quitted the chair, it was resolved, and carried unanimously,

4. That the cordial thanks of this Meeting be presented to William Champion Jones, Esq., for his able and courteous conduct in the Chair.

(Signed) P. P. BLYTH, Deputy Chairman.

Extracted from the Minutes.

(Signed) F. CLAPPISON, Secretary.

LONDON and COUNTY BANKING COMPANY.

NOTICE IS HEREBY GIVEN, that a DIVIDEND on the Capital of the Company, at the rate of 6 per cent. for the half-year ending 30th June, 1870, with a BONUS of 2½ per cent., will be PAID to the Proprietors, either at the Head Office, 21, Lombard-street, or at any of the Company's Branch Banks, on and after MONDAY, the 15th instant.

By order of the Board,
W. McKEWAN, General Manager.

21, Lombard-street, August 5th, 1870.

THE
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AND
AGRICULTURAL JOURNAL,

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REVIEWS OF THE WORK.

"Manhood.—This is truly a valuable work, and should be in the hands of young and old."—*Sunday Times*, 23rd March, 1858.

"The book under review is one calculated to warn and instruct the erring, without imparting one idea that can vitiate the mind not already tutored by the vices of which it treats."—*Naval and Military Gazette*, 1st February, 1856.

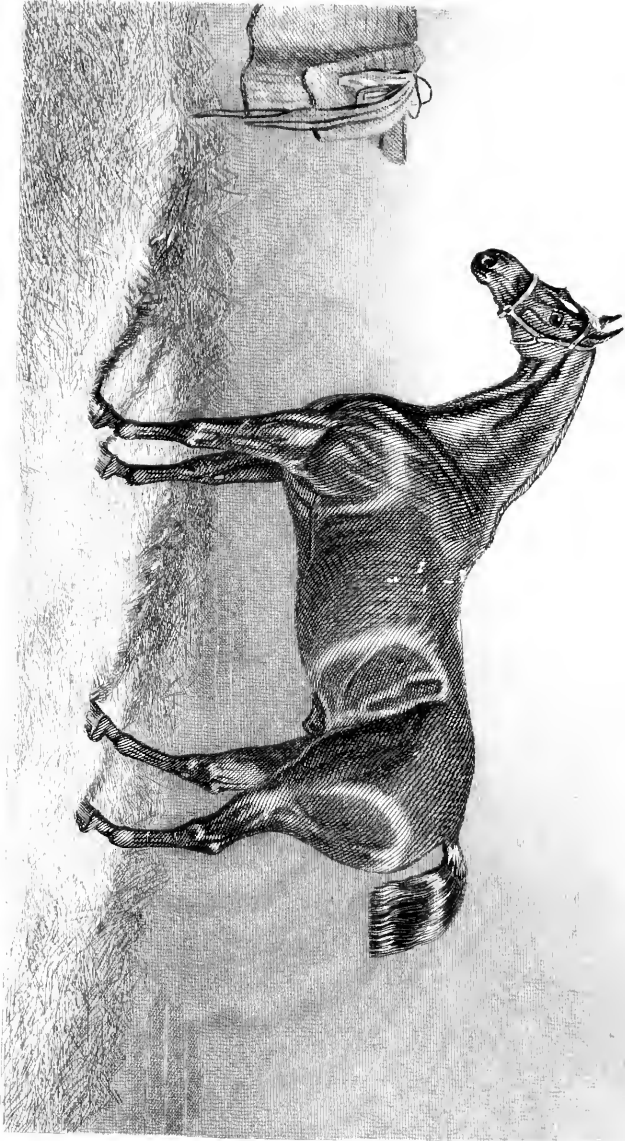
"We feel no hesitation in saying that there is no member of society by whom the book will not be found useful, whether such person hold the relation of a PARENT, PRECEPTOR, or CLERGYMAN."—*Sun*, Evening Paper.

Manhood.—"Dr. Curtis has conferred a great boon by publishing this little work, in which is described the source of those diseases which produce decline in youth, or more frequently premature old age."—*Daily Telegraph*, March 27, 1856.

Consultations daily, from 10 to 3 and 6 to 8. 15, ALBEMARLE STREET, PICCADILLY, LONDON, W.



Duchess.



Exposition



THE FARMER'S MAGAZINE.

SEPTEMBER, 1870.

PLATE I.

DUCHESS; A PRIZE POLLED COW.

THE PROPERTY OF MR. B. BROWN, OF THURSFORD, THETFORD.

Duchess, a red polled cow, bred by Mr. Benjamin Brown in the summer of 1866, and consequently now four years old, is by Tenant Farmer out of Hansom. At the recent meeting of the Suffolk Agricultural Society, at Sudbury, Duchess took the first prize of £10 as the best cow in her class, and the Silver Cup as the best of all the polled cows and heifers; while, as our report of the meeting ran, "there were several very beautiful specimens of the polled Suffolk, both male and female, and the judges honoured the lengthy well-made Cherry Duke with the Cup for the best bull of any age in preference to the Skorthorn, Monk, who did not look in high form. As they did this with the Suffolk bull, surely they might have given the beautiful Duchess the Cup, if form or quality have anything to do with it." At the Norfolk Show, at Harleston, the whole class of polled cows was commended; and at the Royal Meeting, at Oxford, Duchess could get no nearer than a high commendation,

as there is no doubt the red Polls are coming to be more and more appreciated.

There is in reality no difference in the breed of a Norfolk and a Suffolk Poll, though none are considered to be pure bred but the whole coloured reds. They were, however, originally of a dun or Norwegian pony colour; but, from in-and-in breeding, and dark bulls being preferred, they have gradually reached to a deep red—the now fashionable tint. The Polls have a high character as a milk producing breed, while they feed well, and for quality of beef are said not to be surpassed even by the Highland Scots.

Mr. G. D. Badham, of Bulmer, was one of the first to give any great attention to the merits of the Eastern Counties Polls, and his bull, Red Jacket, used in turn by Lord Sondes in Norfolk, and Colonel Tomline in Suffolk, was almost as famous in the show ring as Chester Emperor, or that distinguished service veteran, the white headed Major.

PLATE II.

EXPECTATION; A PRIZE HUNTER.

THE PROPERTY OF SIR WATKIN W. WYNN, BART, M.P.

Expectation comes from the Emerald Isle, and was bought by Sir Watkin or Lord Combermere, of Mr. Mc Garne, the well-known Dublin dealer. He has carried Sir Watkin four seasons, and was awarded the first prize of £80 at Islington this year for the best weight-carrying hunter up to not less than fifteen stone with hounds, with the Gold Medal as the best horse in any of the hunting classes, beating, among others, Iris, the Wetherby prize-horse; Harkaway and Tyrcannel, seconds at Islington; Brian Boru, a well-known prize-taker; Heroine, the first of the light weights at Islington; Comrade, the selected

four-year-old; and Coxcomb, a prize hunter and ladies' horse; as well as Loiterer, who played third to The Heroine in the light weights, and was not placed in the weight-carriers up to fifteen stone, but afterwards was proclaimed the winner of the Badsworth Hunt Cup at Wakefield.

Expectation is a rich chesnut, standing over sixteen hands high, and is a grand square-looking horse, with a deal of quality. Like all good-made ones, he looks smaller than he is, and when going collects himself together, so that he almost gives one the idea of a short

caution (*Jour. Roy. Ag. Soc.*, vol. vi., N. S., p. 156). The following he found to be the

Composition of Beet-root Pulp from Lavenham.

Moisture	70.11
*Albuminous compounds (flesh-forming matters)...	2.25
Sugar	3.39
Mucilage and pectinous compounds	1.93
Digestible cellular fibre	15.13
Woody fibre (cellulose)	5.32
Mineral matter (ash)	1.87
	<hr/>
	100.00
*Containing nitrogen.....	.361

We learn, continues the Professor from the preceding analytical results :

1. That this pulp contains, in round numbers, 30 per cent. of dry feeding matter.

2. That an appreciable amount of sugar is retained in the pulp.

More sugar probably was left in this residue than is usual, owing to the circumstance that the roots were rather flabby when they were worked up for sugar, and in that condition could not be grated so thoroughly as fresher beets, and the juice in consequence could not be squeezed out so completely as from more perfectly rasped beets.

3. That a large proportion of the fibre is readily digestible ; and

4. That beet-root pulp contains a considerable proportion of albuminous or flesh-forming matters.

The next analysis was made from a specimen of French pulp, which yielded the following results :

Composition of a Specimen of Beet-root Pulp produced in France.

Moisture	70.88
*Albuminous compounds (flesh-forming matters)...	2.38
Mucilage, pectinous compounds, and a little sugar	6.59
Crude cellular fibre.....	16.43
Mineral matter (ash)	3.72
	<hr/>
	100.00
*Containing nitrogen.....	.383

It will be seen that the French pulp resembled closely in composition the English specimen. Both contained about the same percentages of water and of flesh-forming compounds, and both may be regarded as equally useful for feeding purposes.

In a second specimen of French pulp, which evidently had been kept for a considerable length of time in an unsheltered place, I found a good deal more water, as will be seen by the subjoined analysis :

Composition of Second Sample of French Beet-root Pulp.

Moisture	77.10
*Albuminous compounds (flesh-forming matters)...	1.93
Mucilage, pectinous compounds, and a little sugar	1.19
Lactic acid	1.12
Crude cellular fibre.....	16.07
Mineral matter (ash)	2.59
	<hr/>
	100.00
*Containing nitrogen.....	.39

This refuse pulp thus contained nearly 7 per cent. more water than the preceding one. Its taste was strongly acid, and on examination I found that the sour taste was due to lactic acid, of which the pulp contained fully 1 per cent.

When beet-root pulp is kept for any length of time it turns decidedly acid, and in that state is quite as much relished by cattle and sheep as when fresh. Practical feeders, with whom I came in contact maintain that old pulp is superior to new for fattening purposes. Be this as it may, the lactic acid which is generated during the time of keeping, certainly has the effect of preserving

the feeding qualities of the pulp and of rendering it more digestible.

Except in its more acid taste old pulp differs but slightly in its appearance and general characters from new. The plan of preserving beet-root pulp in a good condition for feeding purposes is extremely simple. All that is necessary is to dig a trench in the earth, to place in it the pulp, and to pile it up in the same way as a heap of mangolds or swedes, and to cover the heaps with the earth from the trench. In this way the residue may be kept for years in a good condition.

On the occasion of our journey to Belgium I brought home with me a sample of old pitted pulp which had been kept for about one year, and submitted it to a general analysis. When it was analysed it yielded 61.74 per cent. of water ; but as it no doubt lost some water on the road, it will be more appropriate to represent its composition in the same state of moisture as the specimen of English pulp, which, in round numbers, contained 70 per cent. of water.

This specimen of the old Belgium pulp accordingly had the following composition :

Composition of Belgium Beet-root Pulp one year old.

Moisture	70.00
*Albuminous compounds (flesh-forming matters)...	2.43
Digestible fibre, pectinous compounds, &c.	18.67
Woody fibre (cellulose)	6.48
Mineral matter (ash)	2.42
	<hr/>
	100.00
*Containing nitrogen.....	.39

Allowing only little for the superiority of sugar as a fattening element of roots, the case is far from overstated if 1 ton of English sugar-beets is considered as equivalent in nutritive properties to at least 1½ ton of common mangolds. In the next place, let us compare the preceding analyses with the average comparison of the refuse pulp from beet-root sugar manufactories. In round numbers this may be stated with sufficient accuracy as follows :

Average Composition of Beet-root Pulp (Refuse Pulp of Sugar Manufactories).

Water	70.0
Sugar.....	1.5
*Albuminous compounds (flesh-forming matters) ...	2.5
Crude fibres and a little lactic acid	24.0
Mineral matter (ash)	2.0
	<hr/>
	100.0
*Containing nitrogen.....	.40

In 100 parts of pulp it will be seen there are 30 per cent. of dry matter, whereas 100 of sugar-beet from which it is obtained contain only 15½ parts of dry substance, and common mangolds but 11 parts.

A ton of beet-root pulp accordingly contains 672lbs. of dry matter, or 325lbs more than a corresponding weight of the roots, and 425½lb. more dry matter than 1 ton of common mangolds. In other words, 1 ton of pulp contains not quite, but nearly, the same amount of solid substances as 2 tons of Silesian sugar-beets, or 3 tons of common mangolds.

Nobody probably will dispute the fact that the dry substance of a sugar-beet or a mangold is more valuable for feeding and fattening purposes than the dry substance of the pulp. The question, however, which requires to be settled is, not whether the perfectly dry pulp is less valuable than perfectly dry roots from which it is made, but whether the 672lbs. of solid matter contained in a ton of pulp are worth more or less than the 347lbs. of solid matter present in a ton of sugar-beets, or 246½lbs. of the solid matter of which common mangolds consists.

Before we proceed farther let us refer to the analysis of the common mangolds grown in this country and compare it with that of the Silesian or sugar-beet. Here again we are indebted to Professor Voelcker, who thus warns us (*Jour. Roy. Ag. Soc.*, N. S., vol vi., p. 160) :

In all comparisons of that kind care should be taken to avoid extremes, and fairly to represent the average composition of the materials under discussion. It may not always be easy to do so, and I experienced the difficulty in endeavouring to draw up figures which may be regarded as fairly representing the average quality of common mangolds and Silesian sugar-beets, both grown in this country. The following tabular statement, however, I believe represents correctly, and in round numbers, the composition of English common mangolds and sugar-beets of fair average quality :

Composition of Common Mangold and Silesian Sugar-beets of fair average quality grown in England.

	Common Mangold.	Silesian Sugar-beets.
Water	89.0	84.5
Sugar	5.5	9.5
*Albuminous compounds (flesh-forming matters)	1.5	1.5
Crude fibre	3.0	3.5
Mineral matter (ash)	1.0	1.0
	<hr/>	<hr/>
	100.0	100.0
†Containing nitrogen..	.24	.24

Speaking generally, the Silesian sugar-beets grown in this country contain the same amount of nitrogenous compounds and mineral matters as ordinary mangolds, and from 4½ to 5 per cent. less water, and nearly double the amount of sugar which is found in common mangolds. The average percentage of dry matter in sugar-beets is 15.5, and in common mangolds 11. A ton of the former therefore contains 347lbs. of dry feeding substance, in round numbers, and a ton of the latter only 246½lbs.

The influence of soil and of climate upon the composition of sugar-beet are questions of very considerable importance. Some years since this inquiry engaged the attention of Sir Robert Kane, who ascertained the composition of the sugar-beet grown on various soils of the Sister Island :

The following table gives the proportion of sugar found by him in various specimens of Irish grown sugar-beet. In this column I, gives the nature of the soil ; II, the maximum and minimum solid matter per cent. in the beet grown on it ; III, that of the sugar :

	I.	II.	III.
Tenacious clay	12.7	11.6	8.5
Heavy clay	15.0	10.9	9.4
Loam	15.5	13.6	8.2
Rich loam	22.0	19.3	14.5
Slightly sandy loam.....	20.1	15.8	13.5
Rich loamy clay	16.0	14.8	11.1
Rich clay	14.7	12.2	8.5
Clay loam	15.5	12.7	10.8
Tenacious clay loam.....	15.4	11.2	9.8
Rather clayey loam.....	18.6	12.3	12.8
Stiff clay, full of inert organic matter.....	11.5	6.2	5.7
Good clayey loam.....	16.5	9.2	11.4
Tenacious clay.....	15.3	11.4	9.3
Rich clay loam.....	19.4	9.2	12.5

This eminent chemist found that to obtain the maximum produce of sugar, the roots should not exceed 4lbs. or 5lbs. at the utmost, as large roots are too spongy, and contain but very little sugar ; they should have a solid hard flesh ; the crown and heart be as small as possible ; they should grow as little as possible out of the earth, and should not exhibit a green segment about the crown,

as those portions of the beet which grow out of the soil contain scarcely any sugar ; the roots should not be suffered to remain too long in the ground, or exhibit the slightest tendency to throw out flower stalks ; the soil best suited for the sugar-beet is a deep rich loam, rather inclining to clayey than to sandy, but not peaty ; the application of rich nitrogenous manures should be avoided ; that Irish grown beet contains as much sugar as the continental grown, under similar circumstances.

The average amount of sugar in the beet grown in the moist climate of Ireland, would seem to be rather less than that of the roots grown in England. But it is probable that by improved culture and selection of seeds the average amount of sugar in this root may be materially increased.

There does not appear to be any great difference in the amount of crystallizable sugar in the beets grown in this country and on the continent. Professor Voelcker has given the result of many of his examinations (*ibid*, vol. v., N. S., p. 358). He found :

	Per cent.
In a specimen of Silesian sugar-beet grown in Holland	10.56
In another specimen.....	7.42
In Silesian beets grown in 1868, near Lavenham, of crystallizable sugar	10.51
In another specimen	10.94
In another specimen	9.31
In another specimen.....	10.04
In a specimen manured at Barking with London sewage	13.19
In another specimen	6.53
In a specimen grown in Scotland.....	8.65
In another.....	12.18
In a specimen grown in Norfolk.....	9.42
In another.....	7.46
In a specimen grown in Berkshire	8.86
In another.....	6.67
In a specimen grown in Devon	5.46
In another.....	3.62

Upon the whole we have reason to conclude that the amount of sugar in English-grown beet is sufficient to remunerate the manufacturer. The sugar-cane of the West Indies, I believe, only contains on an average 18 per cent. of sugar. The amount of cane-sugar produced per acre also varies considerably, as in the sugar-beet the soil and climate influence very largely the composition of the cane. The largest produce, it appears, from a given extent of land being in the Island of Mauritius.

CART HORSES OR DRAY HORSES ?

TO THE EDITOR OF THE MARK LANE EXPRESS.

SIR,—In your report on the Yorkshire Show, when speaking of the agricultural classes, you describe Lincolnshire a great prize-taker in Yorkshire, that beat Honest Tom last year at Beverley, as being quite lost, and appearing as a pony among the agricultural stallions. You add, "But certainly it struck us that these horses, though active, were more dray horses than farm horses." Now, Sir, this has struck a good many of us for a number of years past. The dray horse is being improved off the streets of our towns ; where our farming men used to walk they now ride. A groom of one of these monsters told me at Manchester that his horse's weight was 22 cwt. ! Now, if like *begets like*, what would you set a horse of this sort to do on a farm ? Suffle turnips ? hor-e rake ? harrow ? There is just as much diversity of type between dray and farm horses as between any other of the horse classes. If the Scotchmen would get rid of the superfluous hair on their legs, the Clydesdale seems to me the model sort.—Yours obediently,
"Cymro."

Llan, Carmarthen, Aug. 9, 1870.

THE PRESENT PROSPECTS OF THE SEWAGE QUESTION IN RELATION TO THE PUBLIC HEALTH.

The following paper was read by Dr. LETHBY before the Metropolitan Association of Medical Officers of Health: Hasty and inconsiderate legislation, promoted by those who, as the sequel will show, had no real knowledge of either the principles or practice of the subject with which they officiously meddled, together with the most mischievous charlatanism, has brought the whole question of the disposal of sewage into such a frightful mess, that the public are not only loud in their complaints of the injury inflicted on them, but are equally emphatic in their demands for a remedy. A review of the parliamentary history of this subject would be instructive, and it would also be amusing, but for its serious results and its solemn prolixity; for it would show how Blue-book upon Blue-book, and report upon report, from the same officious hands, and in the same wearisome tone and bewilderment of facts and figures, had so perplexed the Legislature, that they were glad to dispose of the subject by hasty legislation, or by handing it over to some Royal Commission, not always discreetly chosen. But, bad as are the consequences of this, the prospects of the future are worse; for there is a well-grounded fear that the same incompetent school of sanitarians who have been concerned with our present difficulties will also be concerned with the future, and that Parliament will again have to correct the errors of inconsiderate legislation. If this can be prevented, it will be of vast importance to the public; and none are better able to assist in the matter than the health officers of this metropolis. It is with this object I draw your attention to it, and ask you to give it your serious consideration. In the first place, let us inquire what is the nature of the thing we have to deal with. Sewage is at all times a very complex material, for it is composed not only of the solid and liquid excreta of the population, but also of the fluid refuse of every branch of industry, as the filth of kitchens, laundries, and dye-houses, the drainings from stables, slaughter-houses, and the public markets, the various liquid impurities of trades and manufactures, and the washings of streets and alleys. These, with the ejecta of the inhabitants, and a large volume of water, compose the sewage of towns. But each of these constituents has its specific influence on the composition of the general mass, and on the putrefaction to which it is subject. Every town or city, therefore—in fact, every part of a city—has its own peculiar quality of sewage, varying with the density of the population, the habits of the people, as to their diet, cleanliness, and trade pursuits, with the season of the year, the state of the weather, the day of the week, and even the hour of the day. This makes it difficult to obtain precise information of the nature and composition of sewage. Nevertheless, there are two ways by which the subject may be approached, as by ascertaining the average amounts of solid and liquid matters contributed by each individual, and by the various branches of industry; and secondly, by making careful analysis of the sewage collected throughout the day at various seasons of the year. Messrs. Lawes and Way in this country, and M.M. Wolf and Lehmann on the Continent, have determined, with very nearly the same results, the average proportion of solid and liquid matters discharged daily from the human body. It varies, of course, with age and sex, but broadly it may be said that, taking a thousand individuals at all ages, as they are found in a population, they contribute about 2,640 lbs. of liquid and moist excreta. In the dry state it would amount to about 141 lbs. This is at the daily rate of 42.25 oz. of moist, or 2.25 oz. of dry matter per head of the population. The washings of streets have been carefully examined by Professor Way, who finds that the liquid discharged into the gullies, after a heavy shower of rain, contains, in the case of granite roads, about 813.3 grains of solid matter per gallon, and of this 276.2 grains are dissolved, and 537.1 grains suspended. In that of wood pavements it contains only about 39 grains per gallon, of which 34 grains are dissolved and 5 grains suspended. The general average of the washings of several streets differently paved, and with various amounts of traffic, gave

262.6 grains of solid matter per gallon, of which 113.3 grains were dissolved, and 149.3 grains suspended. The refuse of factories, &c., cannot be easily determined, and therefore we are obliged to rely for our results on the second method of investigation—namely, the analysis of the sewage at different times and places. In this metropolis the sewage discharged by day contains about 94 grains of solid matter per gallon, of which 38 grains are suspended, and 56 grains dissolved: of the suspended matters, 17 grains are organic, and 21 grains mineral; and of the dissolved, 15 grains are organic, and 41 grains mineral. The night sewage is not so rich in solid elements, for it contains only about 79 grains of solid matter per gallon, of which 14 grains are suspended and 64 grains dissolved; and of these, 15 grains are organic, and 64 mineral—the organic being distributed very evenly between the soluble and insoluble constituents. Branch sewers, and those which are nearly stagnant, are generally very foul, for the sewage of them contains from 150 grains to 500 grains of solid matter per gallon, of which from 90 grains to 250 grains are suspended. The organic matter ranges from 20 grains to 120 grains in the soluble part, and from 20 grains to 176 grains in the insoluble. Taking the average of all the results obtained in the examination of the metropolitan sewage by Dr. Hofmann, Mr. Witt, Professor Way, and myself, it may be said that it contains about 90.4 grains of solid matter per gallon, of which about 29.8 grains are suspended, and 60.6 grains dissolved, there being about 15 grains of organic matter in each of these constituents. A storm of rain does not diminish the proportion of solid matter, for although it has a tendency to dilute the sewage, yet it washes away so large a quantity of filth from the streets, and disturbs so much of the sediment in the stagnant sewers, that the sewage after a storm generally contains more than the average proportion of solid impurity. Taking 90 grains per gallon as the usual amount, it will be increased after a storm to 125 grains per gallon, of which 64 grains are suspended, and 61 grains dissolved. The physical properties of sewage are peculiar, for when examined under the microscope the clear liquor is found to contain a large quantity of amorphous organic matter, with filaments of various fungi, and it swarms with the lower forms of animal life, as beaded spirulina, vibrios, and monads; but soon after exposure to the air higher forms of infusoria appear, as paramoecium, vorticella, rotifera, &c. The sedimentary matter consists of the remains of undigested food, as muscular fibre, husk and hair of wheat, the cells and starch of potato, and the tissues of vegetables, as cotton, cabbage, &c., and fibres of wool. It also contains the products of some of the secretions, as yellow biliary matter, intestinal mucus, and crystals of uric acid and triple phosphate; besides the *débris* of the streets, as particles of granite, flint, and carbonate of lime, with a large quantity of black amorphous matter. When sewage has a very offensive odour, and is evolving marsh gas and sulphuretted hydrogen, it rarely exhibits much sign of animal life; but when it is diluted with water, and exposed freely to the air, the bad odour quickly disappears, and the higher forms of infusoria are rapidly developed. This is proof of the salutary influence of air and water in promoting the less hurtful kinds of decay. I have often noticed that where the sedimentary matters of sewage accumulate and putrefy, without free access of air, foul gases are evolved, and little or no organic life, except of the very lowest kind, appears. This was formerly the case with the mud upon the banks of the Thames, where the only living things were *monads*, *vibrios*, and *fungi*; but in the middle of the stream, where there was abundance of air and water, the highest forms of infusoria abounded. This may be noticed in every river of the kingdom which receives the sewage of a large town. At first, the sedimentary matters deposit and putrefy; but the supernatant water, containing all the soluble constituents of the sewage, passes on, and rapidly becomes clearer and clearer, until its organic matter is appropriated by living beings, or destroyed by oxidation. This process is not only

indicated by the marked improvement in the appearance and odour of the water, but it is actually demonstrated by the character of the vegetation, which passes successively from the simplest and lowest forms of fungi, to *conferva*, *calothrix nireca*, *vaucheria*, &c., until at last *anacharis*, *nasturtium*, *veronica*, &c., abound; and when these are clean and healthy we may be assured that the sewage, in its noxious condition, is no longer in existence, and that the most refined skill of the chemist will fail to discover it. I have, on a former occasion, fully discussed this important question, and I should not again refer to it if it had not been made a special subject of comment, and apparently of experimental inquiry, by the Rivers Pollution Commission; for at page 18 of their recent report they say: "It has often been stated, but so far as we know without proof, that the organic matter contained in sewage and other similar polluting materials is rapidly oxidized during the flow of a river into which such materials are discharged. Thus, it has been asserted (Report of Royal Commission on Water Supply, p. 79) that if sewage be mixed with twenty times its volume of river water, the organic matter which it contains will be oxidized, and completely disappear whilst the river is flowing 'a dozen miles or so.'" Now, I think it is right to state that the quotation is not fairly made, and that the sense and substance of my evidence herein alluded to are not fully expressed; for on referring to the page from which the Rivers Pollution Commissioners have quoted, it will be found that I spoke of oxidation as only one of the agencies concerned in the destruction of organic matter in a running stream. My words are these: "Considering the powerfully oxidizing influence of water upon sewage, the many agencies which are at work destroying it, the power of precipitation, the using of it up by vegetable and aquatic plants, and by fish, and above all by the power of oxidation, I think none of the sewage discharged into the Thames can, at the present time, be discovered at Hampton." And when I am asked how far it would have to flow before it would be broken up into other chemical compounds, I answer thus: "I have made a great number of chemical experiments to determine that. I have examined most of the rivers in England, and this is the conclusion that has been come to, not only in my mind, but in the minds of all the engineers who have devoted their attention to the subject—that if ordinary sewage, containing, we will say, nearly 100 grains of solid matter per gallon, such as London sewage, out of which probably something like 14 grains or 15 grains are organic, be mixed with twenty times its bulk of the ordinary river water, and flows a dozen miles or so, there is not a particle of that sewage to be discovered by any chemical process. I ought perhaps to have said by any *reliable* chemical process; for I will not answer for the results of such processes as are used by Dr. Frankland for the determination of "organic carbon" and "organic nitrogen," processes that I have already criticised, and which others have declared to be so faulty, that the range of error embraced by them is greater than the range of possible truth. It is curious, however, that even with these processes the Thames at Hampton, according to Dr. Frankland, is purer than the Thames at its source, notwithstanding that it has received the drainage from all the towns on its banks. But to return to the subject, the Pollution Commissioners say, "We thought it very undesirable that a subject of such vital importance to our inquiry should any longer rest upon mere opinion, and we have therefore determined to submit it to careful experimental investigation." Their investigations were of two kinds—namely, an examination of the Mersey, the Irwell, and the Darwin, at different parts of their course, choosing the winter time, when most of the agencies to which I have referred were dormant; and, secondly, by examining air and sewage contained in a bottle. Both of these investigations were of the most unsatisfactory kind; for from what I know of the rivers in question, there is no part of their course so free from the access of impurities as to furnish even remotely the sort of evidence upon which we can rely. The evidence, however, which they do furnish is that, notwithstanding a continued access of impurity, there is a continued improvement of their condition; and as for the experiments with sewage in a bottle, they are so absurdly ridiculous, as a means of testing so important a question, that I am ashamed to refer to them. The proper way in which such an inquiry should be conducted is an appeal to the large facts of nature; for everywhere the rivers of England are

receiving the sewage of towns, and yet they are everywhere undergoing a rapid self-purification. If this were not so, their condition would be frightful, and we should expect a universal pestilence. In this metropolis, for example, the water which we drink is taken from the Thames after it has received the sewage of thousands of people, and yet, to use the words of Dr. Frankland, "it is purer and better adapted for domestic purposes at Hampton," where it is taken, "than at any other part of its course." And how has this been effected but by oxidation, and by the operations of animal and vegetable life? When Dr. Miller was asked by the Royal Commissioners on Water Supply, whether he had made any experiments on the power of water, in a given course, to oxidize organic matter, he said, "I ascertained a remarkable result in 1859 upon the river: I took specimens of the water at Kingston, at Hammersmith, at Somerset House, at Greenwich, at Woolwich, and at Erith on the same day, and examined the quantity of oxygen which the water contained at all these different points. I found that the quantity of oxygen at Kingston was the ordinary or normal proportion; at Somerset House it was much diminished; at Greenwich the whole of the oxygen had disappeared; at Woolwich it was in much the same condition; and at Erith the water was very much improved—showing that this diminution of oxygen had been produced by its action upon the water contaminated with the sewage of the London district, and that, as it passed lower down, the oxygen was again absorbed from the air, and again it became diluted with a large volume of water from below, from other sources—the Lea, the Ravensbourne, and other tributaries—and in this manner the water had again become oxidized. I look," he says, "upon this as a *direct proof of the effect of oxygen in destroying those organic contaminations which are thrown into the river.*" Dr. Odling, also, in reply to a question from the Royal Commissioners, as to the self-purifying power of water, said: "You see in many rivers, even sluggish rivers, having sewage discharged into them, that for a mile or two the appearance of the river is affected by the sewage, but beyond a certain distance there is no recognizable effect at all—the weeds are perfectly clean and perfectly healthy," and he instances the river Soar, at Leicester, which is black and very foul from the refuse of the town—but "three miles from the town, its appearance is such that you could not tell it had been contaminated; for it was running clear, with fish swimming in it, and the weeds were clean." That, he said, was simply from a process of self-purification. Again, Dr. Taylor, of Guy's Hospital, in his examination before a Committee of the House of Commons on the Metropolis Water Supply Bill, states, when speaking of the effect of water on sewage matter, that "all such substances are very rapidly decomposed and destroyed; the nitrogen is converted into nitric acid, and the sulphur into sulphuric acid—so that those foetid and putrid substances which go into the Thames from London, when rolled about by the action of the water, containing an enormous amount of air, are all oxidized and destroyed; within a certain limit they may be found, but still, after a very short passage, they are very soon indeed destroyed." I believe," he says, "it is the opinion of every chemist who has considered the subject, that sewage-matter does not remain as sewage-matter in well-aerated water, but all phosphorus, sulphur, and nitrogen are speedily destroyed by the oxygen of the water. Every 1,000 gallons of water contain 46 gallons of oxygen, and that oxygen destroys all such putrescent effluvia. With water not exposed to the air, and not containing air, it is most offensive and unwholesome; but with water containing air, like the Thames, and exposing an enormous surface to the air, in its daily motion, the effect is completely to obliterate every trace (of sewage matter) that a chemist can detect. In the Thames, and other water, the air is in a state of solution, the matter in a state of diffusion, and thus the air and this foetid matter are in the very condition to combine together and form an innocuous compound; it requires time and motion, but still it does take place with very extraordinary rapidity." And he concludes his remarks by saying: "The supposition that the drainage of London, which goes into the river about the bridges, remains the drainage of London all up the river, is contrary to all chemical experience; it is contrary to every chemical fact, and every chemical analysis." In a former communication to you, I spoke of the investigations of Dr. Angus Smith on the polluted water of the Clyde, which were

to the same effect. Engineers also, who have been largely concerned in such inquiries, have always spoken of the remarkable self-purifying power of water. Mr. Hawksley, whose experience of this matter renders him a very high authority on the subject, said, in answer to a question from the Rivers Commission, as to the quantity of water, compared with the volume of sewage discharged into it, as necessary for the purpose of breaking up the sewage into inoffensive compounds, that generally 20 to 1 was sufficient; but if the water flows rapidly, and is very much disturbed, so as to be continually receiving fresh oxygen, a smaller quantity—even 12 to 1—will effect the process; and if it proceeds very tardily it may take a little more, but 20 to 1 is abundant. "I could," he adds, "give you very remarkable instances of it. Take Sheffield. Nothing can be fouler probably than the state of the water at Sheffield; whereas if you go down to Doncaster (about twenty miles below Sheffield), the water is supplied by the waterworks, and is actually drunk in the town." Again says Mr. Hawksley, "Take the river Irwell (the very river which Dr. Frankland has been examining). After leaving Manchester it receives the Irk, the Matlock, and all the refuse of the manufacturing population for a great many miles. When it travels down only eight or nine miles to Warrington it is perfectly changed; it ceases, or nearly ceases, in that short distance to be an offensive river." "At Leicester, likewise," to use his words, "the water was as black as ink—nothing could live in it, and the smell was abominable; but by the time it had got to Loughborough (which is about twelve miles below Leicester) it was entirely restored to its pristine condition. You could stand on the bridge there and see the fish swimming amongst the beautiful reedy and other plants growing in the water, just as in the purest stream. You could see every pebble at the bottom; that is an instance of oxidation." You may remember the instance which I gave you last year of the river Trent, which receives the sewage and manufacturing refuse of some of the largest, busiest, and dirtiest towns in the kingdom, with an aggregate population of more than a million and a-half of persons, and yet when it arrives at Nottingham it is not only clear, pellucid, and inoffensive, with abundance of fish and aquatic plants, but is actually used for the domestic supply of the town. But why need I multiply such instances, or dwell upon such self-evident empirical facts, when they are within the common knowledge and experience of everybody? for even Dr. Frankland is ready to admit, in the case of the London water supply, that "by gradual oxidation, partly in the pores of the soil, partly in the Thames and its tributaries, and partly in the reservoirs, filters, and conduits of the company, this sewage contamination had been converted into comparatively innocuous organic compounds before its delivery to consumers." "I believe," said Dr. Frankland, in his evidence before the Royal Commission on Water Supply, "that the noxious part in sewage is that which is held in mechanical suspension, not that in solution;" and no doubt the sedimentary matters of sewage are capable of producing an offensive condition of the rivers, for when they are discharged into a sluggish stream they quickly subside, and form accumulations of persistently putrefying mud. This is the chief cause of complaint wherever sewage enters a river. At the time of the inquiry into the state of the Thames in 1858, it was admitted on all hands that the filthy mud-banks of the river were the great source of annoyance; and Dr. Hofmann and Mr. Witt, in their report of the matter to the Government referees, declared emphatically that the formation of this mud-deposit in the bed of the river appeared to them to be by far the most serious evil which results from the discharge of London sewage into the river, and they strongly urged this point upon public attention. Dr. Odling, in his report to me on this subject, for the information of the referees appointed by the Metropolitan Board of Works, said that "any means which would prevent the deposition of organic mud in the bed, but more particularly on the exposed banks of the river, would effect an amply sufficient purification of it." The same was my own opinion, for in reporting to the referees I stated that the mischief produced by the discharge of sewage into the river "was not occasioned, as I once supposed, by the soluble matters of the sewage, but by the mud or insoluble constituents which settle and putrefy upon the banks of the river." These constituents being in a solid form, and not easily accessible to atmospheric oxygen, continue to putrefy for a considerable

time. In my laboratory operations I have found that they will keep up a persistent decomposition, with a constant evolution of offensive gases, for many months, the air being excluded from them. I am therefore of opinion that the chief point to be aimed at in the purification of sewage is the rapid and effectual separation of its suspended matters, leaving the soluble matter to mix freely with proper proportions of running water, in which it will be quickly appropriated by infusorial life, or be destroyed by atmospheric oxidation; and this leads me to consider the means whereby this may be effected. One method of accomplishing it is to keep the solid matters out of the sewage, as is practised, with more or less success, in Manchester, Salford, and other towns of Lancashire. In Salford, according to the report of the medical officer of health, Dr. Syson, the most satisfactory results have been obtained with a modification of M. Goux's plan, whereby the soil is received at once into tubs lined with some refuse absorbent; and the advantages of the plan, according to Dr. Syson, are that the manure becomes of great commercial value; that the excrement of the whole town can be readily removed at least once a week; and that in case of fever or contagious diseases the whole of the excrements can be readily and economically disinfected; besides which the plan is simple and economical. Earth-closets are not so manageable, as they require about $3\frac{1}{2}$ times their weight of earth to the excreta, and the difficulties of carrying the material to and from the closets are not manageable on a large scale, although I have seen them in satisfactory operation in factories, as they may be in military camps, where the organization of labour is easy. Instead of earth, Mr. Stanford recommends charred seaweed, which is not only an excellent deodorizer, but does the work of three times its weight of earth. In Edinburgh, in olden times, there were no closets in the poorer houses, but there were numerous public privies, which still exist. These are provided with from eight to forty compartment, beneath which there is placed by the scavengers, every morning, a tin can, like the modern milk-can on the railway, and the can of the previous day, with its contents, taken away. The soil is mixed with ashes and road-sweepings, and sells for about £7,000 a-year, which is half the entire charge of the scavenging of the older part of Edinburgh. Nearly everywhere on the Continent some such method is adopted for the collection of the refuse and excreta, and they are profitably utilized. How far an improvement of this condition of things, instead of the present water-closet system, may have met the requirements of hygiene and the demands of agriculture, is an important question. The Pollution Commissioners, however, condemn this plan *in toto*; and so far are their views disturbed by the medium of their prejudices, that they cannot perceive any difference in the quality of the sewage of a place retaining its solid matters and of another which lets them flow into the public sewers. Liverpool, for example, which collects and disposes annually of about 130,000 tons of privy soil; Manchester, 74,000 tons, Salford 46,000 tons, Oldham 50,000, Preston 30,000 tons, and Bolton 22,500 tons—furnish in each case as much sewage, and of the same composition, as the towns which discharge everything into the sewers. The inconsistency of the thing is so striking that it creates most serious doubts of the accuracy of the analyses, and of the reliability of the determination of organic carbon and organic nitrogen. And now let us turn to the pet scheme of the Pollution Commissioners—the disposal of sewage in all places and under all circumstances by irrigation. Fortunately for us, the thing has been tried, and is now being done in many places, so that we can test it by its practical results, and examine it by the light of something more than that of abstract speculative chemistry. To begin with its absolutely required conditions. You must have a soil that is sufficiently porous to allow the sewage to filter through it, and this soil must be well drained to carry off the subsoil water. The situation of the farm must be convenient as regards the flow of sewage to it by gravitation, and the discharge of water from it by drainage. It must not be within reach of danger from atmospheric miasms, or the pollution of wells by the subsoil drainage. It must have a ready market for the disposal of its only merchantable produce green Italian ryegrass; and lastly, there must be an area of not less than two acres for every 100 people, one of these acres being in use while the other is resting to recover itself. These conditions cannot always be secured, but even if they could, let us see if the objections to the process, on sanitary

grounds, are not conclusively against it. 1. In the first place, the land irrigated with sewage is always a fetid, swampy, morass of the most offensive description. Nowhere, of all the places which I have visited, is there an exception to this condition of things. At the Craigintry meadows, near Edinburgh, which I have often seen, the stink from them is hardly endurable; to use the words of Dr. Ligertwood, who was stationed at the neighbouring barracks, "the stench is sometimes quite sickening." At Norwood and at Beddington it is a subject of serious complaint by those who reside in the neighbourhood of the farms. I have myself experienced it on several occasions, and have been surprised at the statements of Dr. Carpenter, of Croydon, whose pet thing it is, that nobody complains of it. Mr. Creasy, the surgeon at the Female Orphan Asylum, at Beddington, tells a different story, for he says it so damages the value of the neighbouring property that villas near the farm do not let so well as others, nor at so high a rent. At Aldershot, which is frequently referred to as a well and successfully managed sewage farm, I ascertained, on a recent visit with Mr. Hawksley, Mr. Eggar, and Professor Ansted, from the occupants of the few cottages which skirt the farm, that the stench is frequently unbearable and most sickening. At Banbury there is but one house upon the estate; it is a public-house called the Bowling Green, and the landlady described to us, in very graphic terms, the nuisance she was obliged to submit to. 2. But these miasms are not alone offensive, they are also dangerous to the public health; in fact, the early proceedings of those who have brought about this condition of things were devoted almost entirely to the proof of their morbid action, and it was this apparently clear proof which was made the lever of their Parliamentary movements, and was the main cause of our present difficulties. Now, however, they will tell you that the emanations from acres of land soddened with putrefying sewage are neither offensive to the senses nor injurious to the health. I put it to you, gentlemen, as a simple matter of common medical experience, whether you are of such an opinion; for, if so, where is the necessity for all our elaborate and expensive machinery for getting rid of these matters from our houses, and for preventing the escape of such offensive emanations? Why feel, in fact, the least concern for an untrapped drain or an overflowing cesspool? One of the highest medical authorities on the subject of fevers, Dr. Murchison, has traced a particular fever to this particular source, and has devoted a large portion of his classical work to the proof of sewer gases being the primary cause of what he has termed *pythogenic* or enteric fever. It is true that he has some doubts, like Dr. Christison, of the effects of the diluted gases; but time will prove whether these doubts are well founded. Already enough has been seen to show that they are not so harmless as many suppose. Mr. Creasy, to whom I have before alluded as practising at Beddington, said very recently, before a committee of the House of Commons: "I know the sewage farm belonging to the Croydon Board of Works, at Beddington, and have had experience in my professional capacity of what condition of health is around those flats, for I have known the district ever since it was a sewage farm. The first case of typhoid fever occurred in the place in 1867, and from that time to this there has been typhoid fever in every cottage on the estate; and I find around it that almost every disease assumes a particular type, accompanied with what we call a sewage tongue." In the spring of last year I was inquiring into the condition of a stream called the Hebble Brook, which receives the sewage of Halifax, and I was informed that at a place near the outfall of the brook into the Calder, some of the sewage was distributed upon the land, and that it caused such a serious outbreak of typhoid fever in a neighbouring model village, belonging to Mr. Ackroyd, that it was found absolutely necessary to discontinue it. Again, in the autumn of 1862, I had an opportunity of witnessing, on a very large scale, the morbid effects of sewer gases in the town of Shaftesbury, and the adjacent village of Enmore Green. The town had been recently drained by a gentleman of no great practical acquaintance with the subject, and he carried the sewage into the ponds and ditches around the town. It was an experiment of a very instructive kind, for soon the people were attacked with enteric fever, and in less than a year one-eighth of the whole population was down with the disease; for out of about 3,500 persons, 448 were attacked. I am afraid, therefore, that these miasms, even when diluted with air, are capable of producing serious mischief, and that such facts are more conclu-

sive than the statistics of Dr. Carpenter, which seem to show that the people of Beddington and Norwood have actually been better in health since the sewage was brought to them than before. 3. I would remind you that the efficacy of sewage irrigation is entirely dependent on the percolation of sewage matter, and the distribution of it through the subsoil water. It cannot but be, therefore, that this water is polluted to such an extent as to endanger the neighbouring wells. Many instances of this have already come under my notice; and it would seem, from the remarks of Dr. Carpenter, that Dr. Frankland had himself stated that the chalk well at Croydon, from which the public supply is obtained, is actually polluted with the soakage of foul matters from the irrigated grounds at Beddington. The morbid effects of such water are but too frequently observed, as the annual reports of the medical officer of the Privy Council abundantly testify; and then again, if the doctrines of Professor Von Pettenkofer, of Munich, be correct, as they certainly seem to be, that fluctuation in the level of ground water-charged with sewage is the most active agent of fever and cholera, the consequences of irrigation may be most serious. 4. There is another very important objection to sewage irrigation—the danger of propagating parasitic diseases. Sewage contains myriads of ova of intestinal entozoa—every segment of a tape-worm discharged from the human body is crowded with them, and if distributed with sewage upon the land will become attached to the grass and other green fodder which is produced thereon. This is eaten by cattle, whose bodies quickly become infected with the parasite in its larval condition, and thus the measly meat becomes the agent of disease in our own bodies. At present, the distribution of these ova, and their access to the bodies of herbivorous animals, is entirely a matter of accident; but make it a matter of certainty, as most assuredly you will by distributing sewage upon the fodder-producing land, and the consequences must be serious. Dr. Cobbold, who is our highest authority on this subject, has published an essay to warn the public against the danger of this method of disposing of town sewage; and he has hinted at the probable introduction into this country of a terrible helminthic malady (*Bilharzia*) which is now common in Egypt, in Africa, and the Mauritius, and would assuredly be propagated throughout the land by this dangerous scheme of irrigation. "Have the kindness," he says, "to observe that every colonist returning from the Cape is liable to bring this parasitic treasure with him as a 'guest' indeed, dwelling in his blood, and feeding on his life stream. In the advanced stages of the malady, the afflicted individual must frequently evacuate the eggs and their contained embryonic larvae, which are thus conveyed into the ordinary receptacles of such voidings. There let them remain, or convey them into a cesspool, and no harm follows. If deemed preferable, you may transport them, along with myriads of other human parasite eggs and larvae, into a common sewer, and thence into the sea; still, entozoologically speaking, no harm follows. Here, however, let me invite you to pause; for if, without due consideration, you adopt any one of the gigantic schemes now in vogue, you will scatter these eggs far and wide; you will spread them over thousands of acres of ground; you will place the larvae in those conditions which are known to be eminently favourable for the development of their next stage of growth; you will bring the latter in contact with land and water snails, into whose bodies they will speedily penetrate; and, in short, you will place them in situations where their yet higher gradations of non-sexual growth and propagation will be arrived at. After all these changes, there is every reason to believe that they will experience no greater difficulty in gaining access to our bodies here in England than obtains in the case of those same parasites attacking our fellow-creatures whose residence is found in Egypt, in Natal, in the Mauritius, or at the Cape. In a natural history point of view, it would not be an altogether singular result, if, twenty years hence, this parasitic malady should be as prevalent in this country as it is now known to be in particular sections of the African continent. Foreseeing the possibility, not to say probability, of this contingency, am I not right," he says, "after years of long study, to raise my voice in the hope of preventing such a disaster?" Nor is it unlikely that the *Trichina* may be distributed in the same manner, for it swarms in the intestines of those who have just become infected with it, and may be discharged into sewage and scattered upon the land and eaten by creatures whose flesh will give it back to us again. No one, indeed,

but the helminthologist can say what particular parasite may not be distributed and propagated by this dangerous agricultural process. "May we not, indeed," as Dr. Cobbold observes, "but too reasonably conjecture that the wholesale distribution of tape-worm eggs by the utilization of sewage on a stupendous scale, will tend to spread abroad a class of diseases, some of which are severely formidable? So convinced am I," he says, "of the truth embodied in an affirmative reply to this latter query—so certain am I that parasites are propagated in this particular way—so surely do I foresee unpleasant results if no steps be taken to counteract the evil, that I feel myself bound to speak out boldly, and to produce no uncertain sound in the matter which most closely concerns humanity." The whole question, in fact, is of vast hygienic importance. But, fitly, let us see if the system, in a sanitary point of view, is so successful as to render the sewage innocuous, before its admission into a running stream. Go to a sewage farm after you have given due notice of your intended visit, and you will be taken to places where the subsoil water is running from the land apparently pure and drinkable; and no doubt with proper management, under proper conditions of thorough and effective filtration, such a result may be achieved; but the real question is how far this is really and practically accomplished, for it involves such a nice adjustment of all the appliances, such a continuous distribution of the sewage over successive areas of land, and such constant supervision, that it is rarely effected. To judge of the results, therefore, you must visit these places, as I have done, without previous notice, and you must examine the whole district, for it is not uncommon to find byways for the disposal of the sewage which the land will not take. Not long ago, as I have said, I visited Aldershot, with Mr. Hawksley, Mr. Eggar, and Professor Ansted. This you know is a pet place with the advocates of the system, but at the time of our visit we found that nearly all the sewage was passing along the carriers to the outfalls, and going bodily into the river. I took samples of the sewage as it entered the farm from the two camps, and as it flowed from the farm to the river. The original sewage contained 54 grs. of soluble matter per gallon, and 44 grs. of insoluble, each of which contained about 30 grs. of organic matter. As it left the filter-tank it contained the same amount of soluble matter, and 35 grs. of suspended, of which about 26 grs. were organic. As it ran along the carriers to the lower part of the farm, it retained its black offensive character, and this was very marked upon that portion of the land where a little of it was distributed. At one of the outfalls into the Blackwater river it contained 52 grs. of soluble matter per gallon, of which 28 grs. were organic, and 2·84 grs. of suspended matter. At three other outfall from the farm the soluble matters amounted respectively to 52 grs., 58 grs., and 54 grs. per gallon, of which 24 grs., 20 grs., and 22 grs. were organic; the suspended matters being 26 grs., 6 grs., and 5 grs. per gallon respectively, of which 12 grs., 2 grs., and 3 grs. were organic. At the several points of discharge into the river the sewage was black and fetid, and there were large accumulations of sewage mud in a high state of decomposition. I took a sample of the river water before it received the outfall sewage, and after; the former contained 19 grs. of soluble matter per gallon, and the latter 24 grs., of which the organic amounted to 3½ grs. and 5 grs., the ammonia in the two cases being 0·264 of a grain, and 1·545 gr., showing an enormous pollution of the river by the so-called defecated sewage. Everywhere upon the land where the sewage had been distributed there were masses of fecal matter, waiting for the first heavy shower of rain to wash them away into the nearest outfall; the neighbouring ditches were in a most offensive condition, and we were told by the occupants of the houses adjoining the farm, that in times of flood the whole roadway was covered with sewage matters. Considering the praise which has been bestowed on the alleged success of this farm, I was not prepared to witness such a frightful condition of things. At the Craigintinny meadows, near Edinburgh, it is notorious that the outfall water from the farm is shockingly offensive, but as it runs into the sea it is not complained of as a nuisance. A like condition of things, but not so such an extent, I have seen at Norwood, at Rugby, at Warwick, and at Banbury; in fact, at the last-named place the ditches around the farm were full of sewage, and the water was running from the outfall in a very offensive state, showing that the system, although susceptible of good results, is rarely so in

practice, unless it receives an amount of attention that makes it a serious business. Besides which, there are times when no attention will prevent the discharge of foul sewage from the land, as when the soil is heavy, and a flood of rain sweeps over it, and when vegetation is dormant. In winter time it will freeze upon the land and kill the grass, and, as it thaws, run off to the nearest stream. At Warwick we saw acres of ground thus despoiled, where the defecation of sewage was entirely a matter of surface filtration. All authorities, indeed, agree that the success of this system is dependent upon a combination of circumstances which are not always attainable, and upon the strictest care and supervision. Even then, according to Dr. Frankland, although it may purify sewage to a great extent, it does not sufficiently purify it to render it admissible into potable water without danger; "the risk arising not only from the considerable amount of animal organic matters which the effluent water still retains in solution, but also from the absence of any guarantee for the removal of the germs or other noxious suspended matters which are frequently present in sewage." The other means of dealing with sewage, so as to separate the suspended matters, and to remove a certain portion of those which are dissolved, is to submit it to chemical treatment. Already there are sufficient facts to enable us to review this part of the subject. At Leicester, at Hertford, and formerly at Tottenham, the sewage was defecated with lime, the lime being used to the extent of from 5 to 20 grs. per gallon of sewage. The treatment is effected by adding the lime to the sewage, and then briskly agitating it; after which it flows into subsiding-tanks, where the sedimentary matters deposit, and the clear supernatant water runs off by a weir placed a little below the surface. At Hertford the supernatant water is filtered before it is discharged into the outfall, and in summer time a little chloride of lime, amounting to about half a grain per gallon of sewage, is also employed, as it is found to deodorize the sewage, to check secondary putrefaction, and to prevent the growth of the sewer fungus in the outfall channel. In the year 1858, when I first examined this process at Leicester and Tottenham, for Messrs. Bidder, Hawksley, and Bazalgette, the referees appointed by the Metropolitan Board of Works to consider the question of the main drainage of the metropolis, I found that with 12 grs. of lime per gallon of sewage the whole, or nearly the whole, of the suspended matters were removed, and that the soluble organic matter fell from 13½ grs. per gallon to 10½ grs. When 20 grs. of lime were used, the soluble organic matter fell to about 9 grs. On the occasion of a more recent visit to Leicester, with Dr. Frankland and Dr. Odling, at the instance of the Thames Conservancy Board, we found that the soluble matters of the sewage were reduced from 63 grs. per gallon to 48 grs.—the organic matter falling from 15 grs. to 5 grs. At Hertford, where the original sewage is remarkably weak on account of subsoil water, I have ascertained from many experiments that the organic matter in solution is reduced from about 3 grs. per gallon to 1·6 gr. All these results accord well with laboratory experiments, and they show, as I stated in my original report to the referees alluded to, that, "judging from the experiments which I have made, and the observations of practice on a large scale, it is ascertained that about 12 grs. of lime to a gallon of sewage will effect the speedy separation of all the suspended matters, and also about one-fourth of the dissolved organic matter, leaving a clear liquor which has lost a great part of its offensive odour; and when the clear liquor is mixed with from five to seven times its bulk of water, and is exposed to the air, it is no longer offensive." At Leicester, where the lime method has been adopted, the river Soar, into which the sewage flows, has undergone a remarkable improvement. Before the works were established the river was most offensive, the fish were killed, the vegetation of the river was destroyed, and those who inhaled the effluvia from it were constantly ill. At the Belgrave Mill, which is just below the point where the sewage enters the river, the foulness of the stream was such that in summer-time the water of the mill-dam appeared to boil with putrefaction; the stench from it was intolerable, and so large was the quantity of sulphuretted hydrogen evolved, that the silver in the men's pockets turned black in a few hours. At that time the men were constantly afflicted with diarrhoea, they lost their strength, and their appetites always failed them; one man only out of thirty men in eighteen years had been able to stand it, and he it was who gave me an account of the matter. Now, however, and for

the last three years, since the lime process has been adopted, the river presents an entirely different appearance—aquatic plants have begun to flourish, the fish have ventured to return, the black mud has ceased to accumulate, and the mill-dam is no longer offensive. All along the stream the people speak of the change with satisfaction, and it would appear that the process fulfils the requirement of the local Act, which demands that the water discharged from the works shall not occasion a nuisance, or be injurious to the health of those who live or are employed on the banks of the stream. Crude sulphate of alumina is another precipitating agent. It is employed at Stroud, in Gloucestershire, in what is known as Bird's method. The crude sulphate is made by adding about 20 lbs. of sulphuric acid to 1 cwt. of powdered clay, and allowing it to stand for some time. This material is mixed with sewage in the proportion of 1 cwt. to from 20,000 to 30,000 gallons of sewage, and the sedimentary matters are collected in a properly-constructed tank. Sulphate of alumina is decomposed by the ammonia of the sewage, and the alumina flocculates and precipitates the suspended matters, leaving a clear supernatant liquid, from which a good deal of dissolved organic matter has been removed. To ensure the precipitation of the alumina, Dr. Anderson, of Coventry, recommends the addition of lime. He uses about one pound of crude sulphate to every 100 gallons of sewage. This mixture is well agitated, and then a quarter of a pound of lime in a creamy condition is added. Again it is agitated, and the flocculent alumina, together with the suspended matters, rapidly falls. The sediment is collected in subsiding-tanks, which are worked alternately, and the clear liquor is run off from it. As in the last case, the suspended matters are entirely removed, with a considerable amount of the dissolved organic matter. Chloride of iron, with lime, is also a powerful defecator. It was formerly used at Northampton, and is still, to some extent with lime—the lime being first added to the sewage in the proportion of about a bushel to 8,500 gallons of sewage, and the chloride of lime to the extent of about half a gallon! The chloride is made at the works, and contains about 9,500 grains of the mixed chlorides of iron per gallon. In this case also the precipitation of the sewage is very complete. At present, however, the local authorities are using sulphate of iron and alumina instead of the chloride. The compound is made by mixing 3 cwt. of crude sulphuric acid with 2 tons of a ferruginous earth obtained in the neighbourhood. After standing for a few days the mixture is ready for use, and it is added to the sewage in the above proportion to a million gallons of sewage. At Leamington, where there is an injunction against the discharge of unpurified sewage into the river Leam, the authorities have resorted to the use of the "A.B.C." process of Mr. Sillar, which is worked by the Native Guano Company at its own cost. The sewage flows to the works by gravitation, and there it is mixed with the A.B.C. material (consisting of alum, clay, sulphate of magnesia, bone ashes, wood charcoal, and a little blood diffused through water). The material is added to the sewage in the proportion of one gallon to 200 gallons of sewage, and the whole of it well agitated. It then flows through subsiding-tanks, where the precipitated matter subsides, and the clear water flows off from a weir into an outfall channel with a filter. The tanks are worked continuously for about a week, when the precipitated matter is removed to a centrifugal machine, and drained to the consistence of putty. This is further dried by exposure to the air, and its ammonia is fixed by means of a little sulphuric acid, which also breaks up the organic matter. In this state it is riddled, and sold freely at a good profit for manure. Samples of the Leamington sewage were taken for examination by the Royal Pollution Commissioners on the 11th of December last, and duplicates of them were furnished to me on the following day for analysis. I ascertained that the original sewage contained 66 grs. of solid matter in solution per gallon, of which 14.43 grs. were organic, while the effluent water before filtration contained 67 grs. of soluble matter per gallon, of which 11.27 grs. were organic, and the filtered water contained 61 grs. per gallon, of which 7.58 grs. were organic. Again, the suspended matters in the original sewage amounted to 113.6 grs. per gallon, while in the effluent sewage before filtration it was 7.64 grs., and in the filtered sewage 3.12 grs. The Royal Commissioners, in describing their results, do not mention the filtered water, but in

other respects their results accord pretty closely with mine. Lastly, there is a method of the late Mr. Blyth, which is very deserving of attention. Mr. Blyth was the chemist of the old Board of Health, and he had great opportunities of studying this matter. His plan is first to add a soluble phosphate of lime and sulphate of magnesia to the sewage. After agitation, the mixture is neutralized by means of a little slaked lime, and the precipitated magnesian phosphate carries down with it the whole of the sedimentary matter and a portion of the soluble ammonia. A million tons of sewage require about 1 ton 3 cwt. of Blyth's compound, and 4 cwt. of lime for neutralizing. The resulting dry precipitate weighs about 3 tons 8 cwt., and contains about 58 per cent. of organic matter (yielding 4.5 ammonia) and 8.66 of phosphate of lime. All these methods are manifestly capable of separating from sewage all the sedimentary matter, and also of removing considerable portions of dissolved organic matter; but to be effective there should not only be good agitation of the sewage after the addition of the precipitating agent, but there should also be sufficient tank-room for the deposition of the sewage for not less than four hours; and there should also be a means of filtering the defecated sewage before it is discharged into the river or other watercourse. After witnessing the action of lime as a defecator at Leicester and Hertford, Dr. Odling, Dr. Frankland, and myself reported to the Thames Conservancy that the following were the conditions necessary to its success: 1. The proportion of lime should not be less than one ton to a million gallons of sewage, and there should also be used 56 lbs. of chloride of lime. 2. That the mixture of the sewage with the lime and chloride of lime should be very complete, and that the mixture should be agitated, so as to aggregate the suspended matters, and thus assist in the subsequent precipitation of suspended matter. 3. That the sewage when thus treated with lime should flow along two subsiding-tanks in series; the first should be capable of holding at least one hour's flow, and the second of holding not less than four hours' flow. The tanks should be four feet in depth, and the overflow of the defecated sewage should be by a weir only half an inch below the surface. 4. That there should be a double set of tanks for alternate working. 5. That the defecated water should flow through a shallow open conduit of not less than a quarter of a mile in length before being received into a stream of freely running water, of not less than eight or ten times the volume of the defecated sewage. In this way, or by any similar method of defecation, the sewage of towns may be easily and safely dealt with, so as, on the one hand, to ensure its purification before it is discharged into a running stream, and, on the other, to avoid the many dangers of irrigation. I refrain from entering on the subject of the pecuniary aspects of this question, for they are nowhere encouraging, notwithstanding that the most sanguine opinions have been expressed of the commercial and agricultural value of sewage. Irrigation, like precipitation, except in the case of the Leamington method, is everywhere unprofitable, when it is conducted in such a manner as to prevent the pollution of the neighbouring streams; and I warn you against the glowing accounts which are given of the profitable returns of certain sewage farms, for, if the cost of outlay is considered and balanced with the average returns, it will always be found to be a losing affair. The most sanguine enthusiasts have generally abandoned the system after a trial of its merits. Little or nothing, in fact, can be profitably grown upon the sodden land but Italian rye-grass, and when this is abundant it must be cut, or it will rot upon the ground, and it must be sold for what it will fetch. In the summer of 1866, when I was in Edinburgh, I saw acres upon acres of rye-grass rotting upon the far-famed Craiginnty meadows; and when I asked the cause of it I was told by the manager that the cattle-plague had ruined his customers, and there was nobody to buy it and nothing to eat it, and there it must rot. Besides which, there are considerable doubts as to the value of it as fodder. Mr. Campbell, of Rugby, who ought to be a high authority on the subject—for it was a pet of his—honestly declares that his experience does not show a profit in the use of such fodder, and he gives a good example of it. Twelve Ayrshire cows, which calved about the same time in May, 1869, yielded at the end of twelve weeks an average quantity of $9\frac{1}{2}$ quarts of milk per day per cow. Their daily consumption of rye-grass was $1\frac{1}{2}$ cwt. per cow. If they had been milked for nine months, the average daily yield of milk would have been only from five to six quarts per cow. The

cost of the grass, at 10s. per ton, was 9d. per cow per day, and the other expenses of the dairy raised it to 1s. 3d. per cow. The milk, at 8d. per gallon, was worth only 1s. 7d., and when the cost of sending it to market was taken into account, together with the wear and tear of utensils, he vainly asked for profit. But all this is, as I have said, no part of my present inquiry, for my business is solely with the sanitary part of the question; and I would ask you whether, having regard for the public health, there are not serious dangers in the rash recommendations of the Royal Pollution Commissioners to scatter the sewage of every city and town in the kingdom broadcast upon the land? Medical authorities of some sanitary experience are alone able to engage in such important pathological considerations, and it must strike every one who is interested in the subject, that a Royal Commission, without any pretence of medical knowledge, is singularly incompetent to deal with such a matter. What importance the public or Parliament may attach to their recommendations I am unable to learn, except from former experience, but it is clearly our duty, as public health officers, to examine the subject from a medical point of view, and I doubt not what will be the conclusion.

Dr. COBBOLD said that individually he regarded the sewage question as one which was three parts out of four a chemical question. On this account he thought the chemists should have the advantage of speaking first upon it. Dr. Letheby had referred specially to the remarks made by him in his *brochure*. Now, though the observations he made there were written in a warm, perhaps too warm a strain, he believed there was no statement which he was not still prepared to substantiate. And he thought since he had gained more experience in experimental researches that he could now write a pamphlet much more cogent than that to which Dr. Letheby had alluded. With reference to parasitic diseases, he would only say that he knew of two patients in this country who were suffering from that frightful malady which was so destructive in Egypt. These patients at every urinary discharge must pass a number of the eggs of this parasite, and if the number of persons so afflicted was increased fivefold the chances of the extension of this disease must likewise increase. But happily there were so many contingencies which the parasites had to encounter before they arrived at the human body that the community were yet spared; still he held by the statements contained in his pamphlet. Then take the case of ordinary tape-worm disorders, respecting which he had had much experience. There were about 3,000 persons in London suffering from this cause, who each passed from four to twelve joints a day, each joint containing 30,000 mature eggs, which would give at least a daily return of 450 millions, but he believed 1,000 million eggs was nearer the mark. A certain number of grains of organic matter per gallon were found by chemists in sewage, of which organic matter these eggs must be part and parcel. A handful of large entozoa parasites had been taken from the Craiginfinny meadows. If this sewage was distributed far and wide, it was certain that a considerable portion of these millions of eggs must gain access to the herbivora. It was known, from experimental researches, that measles were developed productively in beef. It was a popular notion that pork only developed measles, but he would assert that in underdone beef persons ran a greater risk. The proportion of tape-worm disease derived from mealy beef was as seven or eight to one in the case of pork. It was, therefore, to incur an enormous risk to distribute sewage which contained these germs over the land. It was possible to decimate the population of any town within a certain number of months by the distribution of tape-worm germs, there being one tape-worm in particular which produced a disease of the human body at present causing the death of 400 persons annually in this country. If that parasitic disease should increase in the same proportion as other parasitic diseases, such as the ordinary tape-worm, a result would follow such as still obtained in Iceland, where one-sixth of the population died annually from this cause. Having these facts to deal with, and knowing the developmental process through which these parasites passed, he thought they were called upon to ask people to pause before adopting a scheme so gigantic as that now proposed, inasmuch as it was with consequences so serious as those which he believed were involved in it.

Mr. HOLLAND said he did not believe any portion of Dr.

Letheby's paper, and he thought the writer was inconsistent with himself. In the first place he alleged that twenty times its volume of water would purify the sewage poured into it, and afterwards he asserted that even a small quantity of water from irrigation meadows was poison. Was Dr. Letheby prepared to recommend that the soil should be burnt; if not, what did he propose to do with it? Unless he was prepared to recommend that all human manure should be burnt to avoid the supposed risk, his argument went for nothing. He (Mr. Holland) believed that the danger of spreading disease by the irrigation system was purely imaginary. Where was the evidence of disease having been produced where the system was adopted? He had made inquiries on the subject and could find none. At Carlisle he asked whether the sheep had the rot, and was answered that they had not. At Edinburgh cows had been fed with grass from the irrigated meadows for sixty or seventy years, but there was no evidence of the prevalence of disease among them. It was true that they were not very healthy, but this arose from their mode of life. Everything was done to stimulate the production of milk from them, and they suffered from want of exercise and fresh air. Sewage was nothing but manure suspended in water, and the error was not in putting it on the land at all, but in putting it on in excess. At Carlisle he had been told that the residents in the neighbourhood of the irrigated fields were unhealthy, but on inquiry it turned out that there were no inhabitants in close proximity, and of those who were anywhere near, there were abundant causes of unhealthiness in the condition of their houses.

Dr. CARPENTER considered that the arguments of Dr. Letheby were based upon a false foundation, and that either he had little practical acquaintance with the facts from which he had drawn his inferences, or had taken only such portions of them as were calculated to sustain his view of the case. Dr. Letheby had alluded to some statements made by him, and had specially referred to the sanitary state of the fields at Beddington. The people of Croydon were among the earliest to adopt any sanitary arrangements at all. They were compelled to adopt some plan, because of the terrors of the law—no less than five or six injunctions having been obtained against them, and the Local Board were threatened with committal to prison unless they ceased to do certain acts. That was in 1858, and in 1859 and 1860 they obtained powers to do what they had since continued to do. In 1860 the irrigation meadows were laid down, and they had been in active operation to the present time. Until this year no complaint, either officially or otherwise, had been made of injury arising from these meadows. Previous to 1860, the town had been put to thousands of pounds expense for damage occasioned by the sewage, but from that year till within the last nine months they had been free from such liability. In 1860 they laid down 276 acres of land for the purpose of irrigation, and to remove the mischief which 19,000 people produced by their sewage. Since then the population of the town had increased to 50,000, and he was free to confess that the quantity of sewage was too much for the land. The result had been that occasionally of late the water was not so effectually purified as it should have been. Until 1867 no cases of fever occurred there. The water of the effluent stream passed through the grounds of a gentleman residing in the neighbourhood, and even at the present time trout might be seen swimming about in it. That being the case, was it not evident the plan adopted for dealing with the sewage was the correct plan? Indeed, Dr. Letheby said so himself and it had been shown in that room that, if sewage were made to pass through five feet of earth, it would be rendered perfectly innocuous, and would be perfectly oxidized. Surely, then, the passage of sewage over land where it was exposed to the air, and came in contact with growing vegetable matter, would remove from it all those elements which were injurious to health, and the water would go off perfectly pure. Dr. Letheby was in the position of an engineer, who, some years ago, wrote a pamphlet to prove that it was totally impossible for a steambot to cross the Atlantic, because she could not carry sufficient coals, the pamphlet being issued at the very moment that a steamer was actually accomplishing the feat. The town of Croydon was a standing proof that sewage could be successfully disposed of in the way Dr. Letheby asserted to be impossible. With regard to the question of health, he might state that, since the beginning of the

year, there had not been a single case of fever reported to the Board of Guardians from Beddington, and he might add, as the medical attendant of most of the wealthy families there, that he had not had a single case of fever, either typhus or typhoid, among them since the irrigation meadows commenced. With reference to the effect upon the inhabitants of Croydon proper, surely, if the emanations from the farms were so dangerous as represented, the inhabitants of the densely populated low-lying parts, which were within 500 yards of the outfall of those farms, would have suffered from typhoid. But for a long period there had not been a single case in that low district, and with the exception of a few cases of scarlet fever there had been no fever there at all. The irrigation system went on during the winter as well as the summer, and in the former period of the year the water had gone off pretty nearly free from those elements which were injurious. This was the result of experience of the system forced upon the parish of Croydon, and which they had not taken up of their own will. Having observed the system, and seen its effects, he was positively convinced that the air which passed over the fields, instead of being injurious, was a benefit to the people living around. It was a positive fact, with regard to Norwood, that the moment the irrigation fields were established the mortality fell from 18 to 15, and had remained so. Dr. Lethby said he had evidence of water coming off the fields in an impure state. He (Dr. Carpenter) knew that there had been such instances, arising from the fact that persons had gone to the fields, broken down the carriers, and pulled at the sluices, letting the water out. Dr. Lethby knew very well that the argument to be drawn from the chemical analysis of the water was valueless, unless he was aware of all the circumstances of the case.

Professor ANSTED, being referred to by the chairman, as having had experience of these matters in connection with the city of Milan, said he hardly felt qualified to take part in the discussion, although, perhaps, so far as a certain amount of familiarity with works of this kind went, he might be able to afford some little information. The general subject appeared to him as far more belonging to the medical man than the geological engineer, if he might so denominate himself. Having had the opportunity, now and then, of noticing the results obtained during the irrigation of considerable tracts of land on a large scale, with material more or less mixed up with sewage, he thought he was justified in saying that in most cases, if not in all, those results had been certainly unfavourable to the general health of the neighbourhood. The chairman alluded to his experience at Milan. He knew the town well, and the way in which the sewage was conducted over the fields in the lower part of the town, and he believed, on the evidence of medical men—some of whom had been examined by parliamentary committees in this country, and whose evidence might be found in blue-books—that the result of the system pursued there was eminently unsatisfactory with regard to the health of the people living near where the works were carried on; and it was not astonishing, for no one could go into the lower parts of the town near the stream and the works without being conscious of their being eminently disagreeable, and probably unhealthy. The Italians were not particular on the subject of smells, but it was confessed that these were very objectionable. The sewage was carried over the fields, and took its course. Sometimes it was used, and in all probability, when that was the case, it passed off the ground without doing any damage to the water of the stream; but during a great part of the year such was not the fact, and the consequence was that the stream in its course was much polluted. And this was a result which he had also observed in other parts of the world. A few days previous he had the opportunity of visiting the irrigation works at Aldershot, and there it was perfectly clear to him that the firm which took the camp sewage and was working it, was utterly inadequate for the quantity put upon it, and that, from the nature of the irrigation, the sewage water carried over the fields could only be used upon a very small scale, while the greater part of it necessarily ran away into the river. He could not help thinking that in most cases this must be the result. It was not for him to say what was the right method of getting over the extraordinary difficulty which the public were called upon to face, but that some method must be adopted was evident. The question before the meeting was whether that particular method of carrying on the work suggested by the Royal Commission on the Pollution of Rivers was likely to be practically useful. As far as his own experience and know-

ledge were concerned, it seemed to him that the method of carrying away the sewage and utilizing it by irrigation might be successful upon a small scale, where the population was limited and the acreage was large; but he could not see much probability of its being successful upon a large scale, for what upon a small scale would practically do no harm—say, in the case of 200 or 300 acres—would be attended with very serious result in the case of a large city or town. It might be very well in the case of Croydon, where the population was small, but the limits of the adaptability of the system were soon reached, and could not be advantageously extended.

Mr. LITTLE remarked that in dealing with the subject they had two enthusiasts to encounter—Dr. Lethby and Dr. Frankland—whose papers were always read with attention, and probably between the two some useful information might be gathered. He was disappointed in the paper just read, because it contained very little which was of practical benefit to the meeting as a body of sanitary officers. It raised objections to the existing modes of operations, but it gave them no hint as to what could be done with the sewage, how to utilize it without creating a nuisance, and exposing the community to those fatal consequences which Dr. Cobbold had described.

Mr. CREAMY thought it was necessary to explain in some degree the sort of conflict of evidence which had taken place. When Beddington was mentioned, it should be known that it was a large district, and that a portion of it had little to do with the sewage question. The sewage fields of Croydon had been well chosen with reference to population, but certainly in every cottage on the estate there had been typhoid fever through the whole course of the time—not a cottage had escaped. And as to the outfall at Beddington Corner, every well was contaminated, and not a house was free from fever. At Carshalton he had had cases of enteric attack. At Beddington Corner, near the outfall, four children had been taken out of one house in a day stieken down with scarlet fever.

Dr. CARPENTER interposed the remark that the local nuisances in connection with those cottages were quite sufficient to produce all the fever complained of, without seeking a cause in the outfall sewer a quarter of a mile off.

Mr. CREAMY said that might be, but the watershed went in that direction. In every one of those houses an examination of the tongues of the inhabitants would show that there was enteric irritation. The same indications which were caused by the Croydon sewage on one spot arose from the existence of cesspools on another.

Mr. HAWKESLEY said he could fully justify the statements made by Mr. Creamy, for few persons were better acquainted than himself with the results of the irrigation works at Beddington Corner. He had been professionally called down to look at those works at intervals for many years, and also in consequence of complaints having arisen, although Dr. Carpenter stated there had been no such complaints since 1860. When on other occasions he had been in the neighbourhood on totally different business, he had taken samples of the water as it fell into the Wandle, and had them analysed. He had also been up the stream, and looked at the confluence of the two waters, which ran over the meadows in different directions. On one recent occasion he found one of those waters exceedingly clear, and the other about as foul as it could be. These two waters met, and passed down by the side of the cottages just mentioned, and thence to the Wandle. In the month of February last he was down there; the sewage was then frozen over the whole surface of the land for acres and acres, and was not in the state which Dr. Carpenter had described. But, besides that, he had been there in the summer, and in the summer it depended very much upon the state of the water whether the sewage, when passed upon the land, stank or not. In warm weather it often stank frightfully, especially on "muggy" evenings. The sewage then gave off a very sickening, though not necessarily a very powerful odour. The same sort of thing occurred everywhere when sewage was applied to land—at the Barking farm, at Edinburgh, at Aldershot, and every place he had visited. It had been stated, to his great surprise, in the course of this discussion, that at Carlisle the sewage did not stink. Most assuredly it did in hot weather, although the entire quantity of sewage put upon the enormous acreage of land there was only from 200,000 gallons a day as a minimum, to something under 400,000 gallons as a maximum, which was only one-sixth of the sewage of Carlisle. And it was there of so little value that the other five-sixths were

allowed to run away into the river, though the acreage of land for its reception was sufficient to utilize the whole. As to the commercial economy of the system, he had made a great many inquiries, and he had been told very frequently of crops being sold at £18, £20, and even £25 an acre, and that everyone was delighted with the effects. But when he came to ask what was the net result of the year's working, he was answered, "Ah, that is another thing." "Well, but what is it?" "Well, we lost so many hundred pounds last year," and in some cases so many thousands. There was not one single place he had heard of where the application of sewage for the purpose of sanitary disinfection was proved to be a commercial success. It was a commercial success at Edinburgh. Why? Because it was not applied for sanitary purposes. They used as much as they required for irrigation purposes, and the remainder ran into the sea or river nearly as foul as when it entered upon the land. But this was not the question now before the meeting. The question before them was one which almost every one could answer for himself. Take the case of plain irrigation by water only—pure water—water issuing, as in the majority of irrigation schemes in this country, from chalk springs. They all knew that when water was put upon land in certain seasons of the year in that state it did fertilize the land, and good grass crops ensued. But what was the result in a sanitary point of view? Fever and ague were produced. Go to Italy. He had been over all the irrigation works there, extending for 200 miles in one way, by 60 or 70 in the other, and what was the result? The people were in a state of actual decrepitude, not simply affected with fever, but with rheumatic complaints, and there was a great deal of cretinism. The same thing existed in the south of France, where irrigation by water only was adopted. Superadd to this foul organic matter, and what must be the result? He believed there was really nothing to be learned upon the subject. His own opinion was that of all unsanitary applications the most unsanitary was that of the application of sewage to land by way of irrigation.

Mr. CREASY said the Beddington grass was irrigated as long as it could stand up, and then it was sent away to market with the sewage some inches up the stem. So that if Dr. Cobbold was right, there was an opportunity for the development of entozoa there.

Dr. LETHBY, in bringing the discussion to a close, said he thought Mr. Holland had not quite apprehended the statements he had made. He had said all along that sewage going into a running stream where there was abundance of vegetation, fish, and a large quantity of oxygenated water, even in the condition of sedimentary sewage, was by a natural process quickly disposed of. But what he also said was that the main cause of all those nuisances which arose from the discharge of sewage into running streams was the sedimentary matter it

contained, and that the distribution of sewage upon the land at the present time did not provide a remedy, and was accompanied by a large number of disadvantages. He said, further, that there was another means whereby these sedimentary matters could be separated; that by a process of chemical precipitation, as by lime, sulphate of alumina, or the agents employed by the A. B. C. Company, or that recommended by Mr. Blyth, they had the power to do certainly, and without danger, what they were not doing certainly when the sewage was put on the land, and with a great deal of danger. By this system of precipitation they could separate those solid elements, and could superadd agents which were not particularly injurious to the highest forms of animal life, but were deadly to those creatures referred to. There was, indeed, a mode within their reach, of dealing with those sedimentary matters which were the real cause of nuisance by accumulating in the rivers, and of rendering the water in such a condition that it might safely be admitted into a stream of eight or ten times its volume. It was a fact that in every one of the places visited, where the irrigation system was adopted, they found—whether by accident or design—abundant evidence of those evil results which it was most desirable they should seek to avoid. The system of precipitation, by chemical processes, could, however, be carried on without the slightest danger to the public, but this could not be said any system of irrigation; for it was indisputable, from the investigations of Dr. Murchison, that sewer gases would produce sewer fever; and as these gases are abundantly evolved from irrigated land, no doubt it was a question open to a great deal of discussion how far they must be diluted before they would cease to produce dangerous consequences. He had told them what he found in his own experience at a model place—the Hebble Brook—where the inhabitants were so decimated by fever that the system was obliged to be stopped. He was asked whether the sewage then was to be wholly lost, and not utilized upon the land. He hoped he had sufficiently answered those questions by showing that the proposed mode of dealing with it was open to the objections that it was dangerous and uncertain, and that there were other and better means of dealing with it. He did not mean to say that by irrigation sewage could not be defeated, but he contended that the system required great attention, and that the result could not be realised in practice; whereas, by the adoption of chemical processes, there was a safe and certain mode of accomplishing the object, and, so far as he knew, these processes were more economical, for there was not a single instance in the country in which the utilization of sewage by irrigation had proved profitable.

On the motion of Mr. LITTLE, a vote of thanks were given to Dr. Lethby, for his paper, and the proceedings terminated.

HORSE SHOERING: THE NEW METHOD.

On the Thursday in the Dumfries Show week a meeting was called under the auspices of the Highland Society, Major Gilson, of Wallhouse, Chairman of the Veterinary Committee of the Society in the chair.

In introducing the lecturer the Chairman said he first made the acquaintance of Mons. Charlier in Paris, in the month of January last, when he went there for the express purpose of thoroughly sifting this new system of shoeing of which they had heard so much, and the great success of which had reached this country. Mons. Charlier had not come here as a speculator, but had come to Scotland and to this very place at his (the chairman's) invitation, to introduce his system of horse shoeing into the country. Professor Williams had had the kindness to agree to read the lecture for Mons. Charlier.

Mons. CHARLIER having said a few words in French,

Principal WILLIAMS then read the paper as follows: I come from France, sent by my father, a veterinary surgeon at Paris, a knight of the legion of honour, to exhibit to you a new method of horse-shoeing which he has invented. This shoeing has been practised in our country for the last five years on a great number of horses employed in different services, and

obtained, on account of its advantages, the most honoured rewards, given by the International Committee of the Exhibition, 1867, and by the Imperial Agricultural Society. Encouraged by the success and the hope given by the noble visitors who saw and persuaded us to this undertaking, I will try to import a thing of public utility into this hospitable land that kindly receives all new ideas indicating any progress in science or art. With your sanction, in spite of the opposition which always attacks anything destined to change a habit, the new shoeing will obtain victory and extend to all the countries where the preservation of the horse is an honour. For a long time a good system of shoeing has been sought for; many would even no longer shoe the horse, to avoid the numberless defects of the usual mode. But the shoe is, to this day, the only way of preventing the wear of the foot; we must, therefore, try to reduce the size of the shoe as much as possible in reforming it. Our shoeing answers to this universal want, being more natural or rather less artificial than any other, being more simple and rational. Seen in its ensemble it is quite different from all other shoes known hitherto, on account of—1st. The whole strength left to the

bare foot; its whole form and whole function in never paring the crust, never touching the frog, nor the sole, nor the bars. 2nd. The new method of preparing the hoof with new instruments to receive the shoe. 3rd. The new fittings of the shoe round the hoof, this alone allowing the pressure of the frog on the ground. 4th. No bevelling. 5th. Its elasticity. 6th. Its narrowness. 7th. Its lightness. 8th. The new manner of forging the shoe; stamping and nailing it. 9th. No longer any calking nor hooks of the shoe to prevent slipping. 1. Frog, sole, and bars preserve all their uses on the ground. The foot is left full, strong, and free. In fact, the frog, when large and strong, supple and elastic, in assisting to support, fills a most useful office. It is the principal organ of elasticity of the foot, which weakens the shock on the tendons and the articulations, and by its pressure on the ground acquires a sufficient consistency to give play to the flexible branches of the crust. Moreover, by its structure it forms in the hinder part of the foot a kind of natural calking or wedge, which strengthens the bearing on the ground, and prevents the horse from slipping. It should be then wrong to suppress the functions of the frog in cutting it away, and in removing it from the ground by the high heels of a thick shoe. The sole, when thick, forms a strong cover that protects all the inner parts from contusions of stones, nails, spricks, or stumps; also fills the office of an arch by its solidity maintaining the crust, and by its yielding under the weight of the body, giving it play. Thus, if we cut the sole, we render it more sensible, dryer, and more contracted. The bars also serve for the support and the expansion of the crust. Never rasp the crust. The crust, when thick, as supple as it is strong, resists shocks, and is elastic. In rasping if you render it thin and dry, being susceptible of being broken or split and contracted. 2. In the natural state the crust is the basis of the foot; when it is solid and resists wear the whole foot remains entire. On our artificial roads, and with severe work, it breaks, and the foot is ere long worn away. It is necessary to protect the crust while preserving it, as it preserves the whole foot. In our system we don't shoe, we merely place a ferrule or ring round the natural foot to prevent the breaking of the precious wall, as a ferrule is placed round the bottom of a stick to prevent the splintering of the wood. Then let us take away only the lower edge of the crust and replace it by an artificial border, harder, more resisting, but the same as to form, thickness, and length, flexibility and elasticity; its durability being such that, thanks to a regular wear, by the continual growth of horn, the hoof remains ever in its normal length. The support is as in a natural state. On the lower edge of the crust a groove is formed by a burr with a guide, taking care not to cut so deep as the thickness of the sole, nor so broad as the width of the crust, sloping on the white line that marks the separation of these two portions, just within the track of the old nails. This groove is to receive a shoe which is not placed under the sole of the foot, but rather under the wall, as its continuation, being sometimes even with the sole and the frog in the normal foot. The shoe being only supported by the crust, does not want bevelling. It cannot injure the sole nor heels, and never forms corns, when it is well fitted. The new shoe is as elastic as the crust itself, which it follows in all its movements of expansion. Thanks to its elasticity, the contracted foot is enlarged, and regains its suppleness and health by regaining the circulation in its interior and its normal functions. The shoe owes this power to its new shape, being curved as a spring,

and to its fitting round the base of the foot, put in the place of the crust itself. The new shoe is very light; it weighs about a third, and often even a half less than the ordinary shoe. The horse is freer in gait. The new shoe is of necessity narrow, since it merely rests on the width of the crust, and not quite even on that. But on the lower surface it can be made broad, in order to increase its durability; the external surface follows the natural bend of the hoof. It is higher than wider, without increasing the length of the foot, being buried in a groove. This shoe has over the narrow shoes the important advantage of allowing the support of the frog. The hind shoe is, however, stronger than the fore shoe. 8. The manner of forging this shoe is very simple. A square, or nearly square, little bar of iron is turned cold in a very short time, or hot; a man can alone stamp it with two rounded punches. The shape and direction of the nail-holes are particular, necessitated by the unusual thickness and narrowness of the shoe. The exterior opening of the hole is rounded oval; the hole is funnel-shaped; the upper orifice is square. The nail has exactly the same shape—a head of a lengthened cone shape, a neck strong and solid, a square blade. The nail thus stops up the hole hermetically. Thanks to these conditions, the new shoe, of a good quality of iron, is very solid on the foot—an important advantage, especially for hunters. Six, seven, or eight holes have different directions, according to the inclination of the hoof; they are nearly straight towards the heels, more inclined towards the toe. A shoe with well-stamped holes can be nailed without danger of injuring the living parts, the hole being a guide to the nail. 9. No longer calkins, nor hooks, or toe-plees. There is no need of calkins; the frog is a natural calkin on the slippery ground, sustaining the tendons instead of straining them. In case of frost, only two moveable nail-calkins are fixed towards the heels of the shoe; the toe forms a kind of hook by its narrowness, and the inner angle of the shoe. These nail-calkins can be fixed by anyone, not being into the horn, and, owing to the thickness of the shoe, are solid. They are taken off as soon as they become useless, becoming even hurtful on hard and level ground. In fine, the new shoe is not difficult to use, and no more liable to accidents than the ordinary shoe; it takes less time to be forged, a single man making 80 to 100 shoes per day—no longer time to fit it on the foot; it can be fitted cold as well as warm; it lasts a sufficient time; it is then no more expensive than the common shoe, being made with a small piece of iron, requiring less coal to be heated; it is suitable for all shapes of feet; it is an orthopedic and pathological shoe, sufficient frequently alone to cure corns and contracted feet and other diseases, being susceptible of all modifications, according to the worst feet; and when the instruction of farriers is extended, it will be known and practised easily everywhere. Till that time comes, in case of lost shoe, the foot is left stronger than after the ordinary destructive shoeing, and resists wear much longer on the roads or pavement. Before changing the old shoe, it is necessary to allow the foot sufficient time to grow. To resume with our shoeing, the foot, being sufficiently preserved from wear, acts quite as in the natural state; it is as an unshod foot of a colt. The greatest enemies of it are routine and ignorance; but we, friends of progress, ought to unite and destroy this ignorance for the preservation of such a precious servant as the horse.

On the motion of Mr. ANSTRUTHER THOMPSON, a vote of thanks was awarded to Mons. Charlier for his lecture.

AGRICULTURE IN NORMANDY.

"Were I asked to name the most favoured portion of France, without doubt I should point to Normandy," thus says M. de Lavergne in his work upon rural economy. The highly-finished appearance of the country, the mansions scattered about, the neatness of the villages, the well-trimmed fences and carefully-dug ditches that line the roads, the freshness of the verdure in the meadows, the healthy and vigorous race of cattle—all these remind the traveller more especially of England. From times long past agriculture has flourished, either from the nature of the soil, the humidity of the climate, or the careful attention of the farmer, or more probably from

its proximity and easy access of transit to the capital. Paris has been a great devourer of the fisheries furnished by the coast, of the fat oxen, butter, fowls, cider, the principal market for horses, and all that could be gathered from the soil. Since the alteration in our treaty relations, and the opening of our ports, there has of late years arisen another outlet scarcely less important. Any one who needs to be confirmed in these facts can visit the markets in different localities—such as Cnen for corn, Charenton and Isigny for butter, Pont l'Évêque for butter and cheese, Le Mans, La Hecke, and Alençon, with many others; or if he takes his station at the windows of the

Hotel Cheval Blanc at Honfleur, or stand upon the quays, he can watch the lading of the steamers of the Brighton and South-Western Companies, and their arrival and departure at the flow of the tide. At first the line of steamers of the Brighton Company plied weekly between Honfleur and Littlehampton, but now there is a daily service of these and the opposition vessels of the South-Western Company. During the month of May in 1868—by no means the most prolific month of the year—there were shipped altogether at this port 12,000 cases of eggs, weighing 800 tons; 15,000 packages of butter, weighing 450 tons; besides fruits, as cherries, strawberries, and early plums, weighing 360 tons. In the autumn the exports are much larger, the shipments of poultry, pears, walnuts, and seed being very considerable.

The province itself includes the départements of Eure, Orne, La Manche, of the Seine Inferieure, which corresponds to what was called Upper, and the Calvados to Lower Normandy. The Seine traverses a portion, and, with the thriving ports of Havre and Honfleur, exercises an important influence upon the description of the products. The Calvados may be taken as a fair sample of the other portions, and therefore we have selected this for our purpose from the reports accompanying the proceeding of the *enquête agricole*. From this source we learn that the Calvados consists of six districts, the names of which are well known in English history, and here the Commission held their sittings—Caen, Bayeux, Falaise, Lisieux, Pont l'Évêque, and Vire; these again are sub-divided into 37 cantons, in all 765 communes. It appears the soil is affected by three distinct geological actions, one part resulting in the greater abundance of the cereals, another in pasturage, and a portion, although small, in woods and copses. The rivers are numerous and abundantly sufficient to supply the needful amount of moisture. The ports are seven in number, and are all situated on the coast with the exception of Caen, which is connected with the sea by a canal traversed in about an hour by steamers which ply daily with passengers and goods backwards and forwards to Havre. It is the capital town of the département, and is remarkable also for the quaint architecture of its streets, and the number and beauty of its churches, one of which has been appropriated for the purposes of a corn market. The town is the resort of the farmers, who are generally an exceedingly well-to-do class, of which there is every sign in the appearance of the country around.

Since the beginning of this century, agriculture, as stated in the report, has made immense progress, and that we can readily believe. Up to that time the property was in the hands of the church and of a few "grand seigneurs," the roads were desperately bad, and there was no easy outlet for the produce; but at the Revolution the change seems to have been marvellous, the law compelled the sale of many estates, the subdivision of all, the communications were improved, education penetrated the dense ignorance of the people in the villages, and the husbandmen and farmers have caught the infection and give fresh skill and intelligence to their occupation. The population continued to increase until within the last thirty years, and since then it has somewhat declined, owing it is said to the superior attractions offered by the large cities for the labouring classes. From this and other causes wages too have risen considerably, in the proportion of 1*l.* to 1*l.* 50*c.*, and those of farm servants have doubled.

The whole superficies of the département covers 552,072 hectares, or 1,380,180 acres; of this arable lands occupy more than one-half. The farms are not generally large, those above 50 hectares requiring a capital of 10,000 francs being rare; and it is seldom they exceed more than half that number, the *petits cultures* do not exceed 20 hectares. Owing to the construction of the railways, the better management of the roads, and the consequent openings for produce, rents have risen one-tenth; the large occupations let for 100 francs per hectare, the moderate for 110, and the small for 130. The *métayage* system, common in other parts of France, is here unknown. The cultivation of the cereals constitutes the chief wealth of the plains; that of colza, attempted at the beginning of this century, has taken a great development, and has led to the adoption of a system of alternate courses. The fallows have been replaced by artificial grasses, which prepare the soil for wheat; the tillage, executed formerly by oxen, is now universally managed by horses, and the farmers of the plains around Caen rear a goodly number of colts for the markets in Paris and elsewhere.

At one time rye was extensively cultivated, but now it has diminished greatly; whereas barley has increased, especially in the lighter soils around Caen and Falaise; flax and hemp have also diminished, and sainfoin, lucerne, and trefoil have increased. The rotation of crops are—for the first year, colza; second, corn; third, sainfoin and other grasses, rye and oats, and in some spots beetroot and potatoes are cultivated. The custom of reaping and leaving a length of straw for the cattle has disappeared, and the harvest is now reaped with the scythe. The only machinery in common use are the thrashing machines; their effect upon wages has not been perceptible, and they necessitate the employment of an additional number of persons. The different kinds of manure used are the natural refuse of the stables and farmyards, oilcake from the colza, guano, the wrac and star fish found on the sea coast.

The breeding and rearing of horses furnishes the chief occupation of the farmers in the district of Caen, and the sheep-farming is most general in the neighbourhood of Falaise; there a farm of 100 hectares generally possesses a flock of 100 to 150 sheep. By the present system of cultivation certain changes have taken place. The colza, which in 1852 occupied 29,985 hectares, has been extended over 40,000 to 50,000 hectares, which bring in not less than 30 to 40 millions of francs. The fallows have completely disappeared. In 1852 it was ascertained that 121,113 hectares were in grass or natural meadow, 317,294 in arable land, and 115,175 devoted to forest, heath, &c. There are now probably 150,000 hectares in grass, since meat, butter, and cheese being articles in great request, all the soil that could be turned to that purpose has been converted into natural meadows. Throughout the département milk, butter, and cheese constitute a considerable agricultural industry. The making of the butter, which is now perfectly understood, and of which the Bessin is the principal centre, does not bring in less than 20 millions of francs to the Calvados; that of cheese produces from 2 to 3 millions. In the district of Pont l'Évêque, and more especially of Lisieux, there is made an excellent cheese called Camembert, which owes its name to a village in the district of Vimoutiers, where it was first produced. The cheeses of Pont l'Évêque, of Livarot, and Mignot have long been celebrated in Paris and all the markets of France. In some cantons the rearing of poultry, and more especially the commerce in eggs, forms an important source of occupation. The *gélinoles* of Caumont in the district of Bayeux, the *chapon* and *poulard* of Crèvecœur in the district of Lisieux, merit an especial mention. The ports along the coast furnish a valuable assistance to the development of this trade; we find it stated that during seven years and a half there were exported in all 340,006,402 kilograms, giving an annual average of 4,534,187 kilograms. Since a kilogram is the weight of 16 ordinary-sized eggs, it follows that there were exported annually by the ports of Calvados 72,546,992 eggs, or more than 6 million dozen. The farms of Calvados do not however alone supply this quantity, since the départements of the Orne and the Mayenne bring their contingent. On the other hand, from Carentan in La Manche the exports are said to be still more considerable, and towards this the districts of Bayeux and Vire contribute their share.

Attention to horticulture has become general, and the growth and sale of fruits of all sorts, fresh and preserved, furnishes a considerable revenue to the inhabitants, particularly around Honfleur. The cultivation of the cider-apple has increased much in all the districts, except Caen, where it is quite unimportant. It is reckoned that in average years the whole of the Calvados produces in cider 2 million hectolitres, and in years of abundance upwards of 4 millions. In valuing the hectolitre at 3 francs, this would give the produce of the soil at from 6 to 12 million francs. It is not unusual in some of the cantons for the farmer to pay the whole of his rent from the crop of apples in his orchard. The produce exported from Havre is generally sent to England, and often even to Russia; but Paris, London, and the United States are the chief consumers of the abundant supplies of animals, butter, eggs, poultry, &c.; and this commerce has been greatly facilitated by the line of railway from Paris to Cherbourg, with branches to Honfleur, Trouville, Le Mans, and Saint Lo. Well may M. de Lavergne—an excellent authority upon all that concerns the agriculture of France—speak in terms of exultation of Normandy as the most favoured portion of his native country! When occasion requires and opportunity arises we shall gladly revisit it.

THE AGRICULTURAL LABOURER.

The following paper was read by Canon GIRDLESTONE at a meeting of the Devon Central Chamber of Agriculture, at Newton Abbot; but the subsequent discussion stood over to an adjourned meeting at Newton:

When, at the beginning of this year, I was for the first time in my life at Newton Abbot, it was as your invited guest. You did me the honour of asking me to be present at the annual dinner of your Chamber, made me most heartily welcome, and gave me, in short, such a warm and cordial reception as I can never forget. Under such circumstances it was, of course, my duty in addressing you to avoid carefully every subject which was likely to lead to difference of opinion. There is no surer mark of bad manners than to risk ruffling, even in the least, what always ought to be the unbroken harmony of a convivial meeting. To-day, however, I appear before you under entirely different circumstances; for we are met together, not for conviviality, but for business, discussion and mutual improvement. You are not now my host, nor am I your guest; but we are one and all members of the same chamber of agriculture, and I am about to address you by your own request on a particular subject, regarding which it is supposed that I am in possession of a certain amount of information and experience. When I thus refer to the honour which you have done me in allowing me to become a member of your chamber, and inviting me to read a paper on the subject of the agricultural labourer, do not, I pray of you, for one moment suppose that I make this reference as a preliminary to throwing amongst you an apple of discord. Nothing can be further from either my wishes or my thoughts. It seldom, however, happens that any two persons can wholly agree upon any subject. It is the most unlikely thing in the world that in such a meeting as this we should all agree on such a subject as that on which my paper is written. But the very object of these meetings is discussion, and there can scarcely be discussion without difference of opinion. The very object of discussion, in short, is to elicit difference of opinion, and so to endeavour to arrive approximately at the truth. When engaged in discussion we cannot too strictly and carefully observe the rules of good temper and mutual forbearance. And, for one, I never could understand why, if such discussions should, as is often the case, be accompanied by very wide divergence of opinion, and even more warmth than is always agreeable, those who have fought valiantly as long as the battle lasted, when it is over should not shake hands over a glass of grog. Thus members of both sides of the House of Commons are found chatting and sipping their tea together immediately after, or even in the midst of a most exciting debate. Thus, also barristers, who, as long as they had their wigs on and were in court, were tearing each other to pieces like a pack of wolves, afterwards dined together as quietly and happily as a flock of lambs. I stoutly protest against allowing differences of opinion on public matters to interfere with the kindness and courtesies of private life. Thus, in this matter of the agricultural labourer, I am quite sure we all wish the same result, though we may differ as to the means of attaining it. We wish to do the best we can for the labourer, though, perhaps, we are not all quite agreed what is the best; and many differ still more widely as to the ways which lead to it. I, then, having my own opinions on this subject, propose to give you a short description of the agricultural labourer as I think he ought to be, leaving you, in the discussion which will follow, to decide whether my picture is correctly drawn, and how far it is realised here and elsewhere. If we differ, let us agree to differ, and be good friends over the agreement. First, as regards the home of the labourer. We have most of us more or less some good horses of our own, and we are no doubt anxious that they should do a good day's work, and do it well and cheerfully. In order to do this one of the first things we do is to secure a good stable. A cold drafty stable, or a stable low, small, badly ventilated, and badly drained, or one in which, without any separation of stalls, all our horses would be huddled together, is there any one of us but, putting all views of humanity out of the question, and merely with

reference to our own advantage, would at once say, "With such a stable my horses are more likely to be in the hands of the farrier than of the ploughman, with such a state of things I shall get no work done?" It is exactly the same with the human animal. Laying aside both Christian and moral considerations, a healthy and comfortable home is essential to the efficiency of the working man, and is consequently of as much importance to the employer as to the employed. The following is my idea of the sort of home a labourer ought to have, if he is to be able to do a really good day's work. A house well roofed, drained, and ventilated, and floored, with a fireplace in every room, and every window made to open, with down stairs a good family room, with handy grate, oven, and boiler, and a scullery at the back, with door to the garden, with upstairs never less than three, and if possible four bedrooms, with a good garden round it, a pigstye, and other conveniences so constructed and screened as to be decent in appearance as well as in reality. The labourer's home should be on the farm if possible, or at any rate as near as can be to his work. A long walk to and from his work is most exhausting to the labourer, and very unnecessarily so, and of course at the same time most damaging to the farmer, who wants the whole strength of those who work for him, and to whom it is of great importance that they should be fresh when they come upon the farm. A moderately sized potato ground, in addition to the garden, is a great advantage to the labourer; whereas if too large it is apt to embarrass and over-fatigue him. If to some one or two cottages on each farm there were also added a cowshed, with facility of pasturage for a cow, and these cottages were reserved as prizes for the most skilled, industrious, and thrifty labourers, the employer would reap as much advantage as the labourer himself from the improved character of both workmen and work, to which such sort of emulation, wherever scope has been given for it, has always led, and is sure to lead. This, then, is my idea of an agricultural labourer's home. As far as providing such a home is concerned it is of course almost entirely a landlord's question. But I have no hesitation in saying, nevertheless, that if I were a farmer, laying aside all regard for the labourer and with a view to my own advantage alone, I should no more think of taking a farm without stipulating for proper and healthy labourers' homes upon it, than I should of being content with stables and cowhouses of such a sort as would be sure to make my horses and cattle unhealthy and unprofitable. The farmers have only to be awakened to a sense of this matter in its true light, and to act upon their knowledge, and the landlords must yield. The result will be for the labourers, decent, healthy, comfortable home; for the farmers, staunch, more skilled, industrious, thrifty, and contented labourers. I pass on from the home of the labourer to his work. This ought, as far as is possible, to consist of piece work. I say as far as possible, because I am well aware of the difficulty there is in bringing many agricultural operations under the denomination of piece-work. Nevertheless, many of those difficulties may by perseverance and good management be overcome, and for his own sake, as well as in the interest of those who work for him, it is well worth the farmer's while to overcome them. For until human nature is very much changed from what it is now, labourers will be found, even without reference to age, to differ very widely from each other. Physical strength and power of endurance, skill, industry, a desire to do an honest day's work, and many other particulars, are points in which there is sure to be an immense amount of difference. Yet, unless the amount of a man's earnings depend upon the amount of work done, it is difficult to see how to avoid paying all these various characters of labourers exactly the same amount of wages, and so inflicting on the farmer both a present and a prospective loss by getting now a less amount of work than he ought for his money, and discouraging improvement in the class for the time to come. It is very important also for all parties, that in every case in which a system of day work is adopted, the number of hours constituting a day's work should be definitely settled and un-

derstood, and that an account of all after-time employment should be accurately kept, and paid for, not by beer or cider or other refreshment, except perhaps in time of harvest, but in money, and in the proportion it bears to a day's work. Now that thrashing is almost entirely done by machinery, it is very difficult to provide wet-weather work for agricultural labourers. Yet when the immense loss of income, which in the changeable climate of Great Britain, and specially in these western counties, accrues to the labourer from bad weather, unless paid by the week, with no deduction for wet days, and the difficulty in which the loss involves him, are considered, it will be obvious that a farmer, who wished his labourers to have well nourished powerful bodies and minds, free from anxiety, will do his best to secure them against the possibility of many day's forced idleness in the course of a year—involving, of course, short commous for themselves and families, or harassing debts at the village shops. Next to work comes wages. In the North of England wages are paid almost entirely in kind, and the result is pronounced by the Women and Children Employment Commissioners to be very good. But then this system is in that locality connected with hiring by the year, the keep of a cow, involving abundance of milk, and many other substantial advantages, which there is no time to mention now, but a full report of which will be found in the report of the commissioners. Unless the whole system were adopted in full, the same results could not be expected to follow. And in general, considering the many abuses to which a system of payment in kind is open, I am still of opinion, as I always have been, that the safest and best way for all parties concerned is to pay wages wholly and solely in the coin of the realm. The worst of all ways is to pay wages in cider or beer. This is nothing more or less than to whet the appetite for a further supply at the public-house. Liquor does not strengthen, it only stimulates. If taken in excess, it debilitates and destroys. Not cider or beer, but beef, is the best manufacturer of muscle. A Devon potato and cider-fed man, with six months' Yorkshire beef in his belly, has been found able to do what he never in his native county could do—as good a day's work as a Yorkshireman born and bred. To the use of cider in the place of a solid nutritious food in the West of England, may be attributed in great measure the rheumatic attacks which cripple up so many of our labourers in the prime of life. The weekly allowance of cider to a Devonshire labourer is valued at from 1s. 6d. to 2s. Now it is clear that out of wages of nine, ten, or even twelve shillings a-week, this is far too much for a married man with a family to spend in drink for himself alone. If given in money instead of in liquor, it would in nine cases out of ten be spent on beef for himself and family, and be vastly more beneficial to all parties, including the farmer, whose object is of course to have able-bodied labourers, with minds free from the anxieties caused by sick wives and children. It may be objected that the labourers are many of them opposed to such a change. So many of them are opposed to the introduction of machinery or any other rational improvement. Our duty is to teach them better, to do at any rate what we know is our duty to them, and they will soon find out that we are consulting their real interest at the same time. I know one large employer of labour in South Devon, whose men as they go to work all leave an empty can at the house, in size proportioned to the number of their families, and on their return in the evening take it away filled with milk as an addition to their wages. Milk is a most wholesome and nutritious diet for any one, but especially for children, and makes the use of rice, another cheap and nutritious article of diet, possible, because palatable. In the midst of plenty of milk, however, there is in most cases no article of diet more scarce or difficult of attainment to the labourer. In my own neighbourhood, generally speaking, he cannot get it at any price. The farmer who follows the example above described, or if he cannot afford to give the milk to his labourers, at least lets them buy as much as they want at cost price, will not only much benefit those who work for him, but will find his own account in a stronger race of men. Wages ought to be paid never less frequently than once a week, and at a stated hour: at an early hour if paid on Saturday, though Friday, as giving the wife a better opportunity of spending the money thriftily, is a much better day for payment. Wages, for obvious reasons, should never be paid at a public house. Though I am afraid it will be difficult to persuade many of my hearers to that effect, yet I feel sure that if, as in the case of domestic servants,

no deduction for bad weather or sickness were made from the wages of agricultural labourer except perhaps to the amount received during sickness from a benefit society, the farmer would save as much in poor rate as he would lose in wages. He would also gain as much as almost the labourer would gain, by the comparative immunity from debt and long-continued sickness, from want of proper nourishment, in which large and repeated deductions from wages almost always involve the labourer. As above stated, I advocate a system of piece work whenever it is possible. But where this is impossible, which must often be the case, why should not there be paid, to some more and to others less, wages according to their ability and skill, as is the case in almost every other trade and profession? The paying all—good or bad, skilled and unskilled, industrious and idle—alike, is a plan which must surely have been invented on purpose to keep all agricultural labourers on the same dull dead level, and to deprive them of all encouragement to improve themselves. Almost all of us, no matter what our employment is, need a stimulus, or else we are apt to sink into the way of going on as we have always done, and as others do. Now it is not to be expected, of course, that farmers should pay their labourers more than the market price. But if the market prices were raised by an improvement in the character of the labourer, the farmer, though he should pay higher wages, would find a more than corresponding advantage in more work done, by fewer hands. The character and habits of the labourer must next be considered. And that these should be of the right sort is fully as important for the farmer as for the labourer himself. If labourers are idle, drunken, unthrifty, always on the verge of the Union and often in it, in debt and difficulty, with bodies debilitated by intemperance and the substitution of stimulating drink for wholesome nutritious food, and minds never free from the anxiety which is the sure accompaniment of an unhappy home and a neglected family—except the poor victims themselves, who suffer more than those who employ them—who, on the other hand, is a greater gainer than the farmer, if having in his employ a lot of labourers the very reverse of those above described? It is clearly to the interest of the farmer, even at a little sacrifice, to do all he can to encourage habits of thrift and industry amongst his labourers. Pronounce decidedly against all sitting at the public house. Never let an act of drunkenness or dishonesty be overlooked. Make it a rule, if possible, that labourers should belong to some friendly society, established on sound principles, in which old-age pay as well as sick pay and funeral expenses are provided for. Make known the rules and advantages of the Post-office Savings Bank, and give every possible encouragement to make use of it. Let farmers' wives and daughters, in conjunction with the clergy and their families, take a personal active interest in clothing and blanket clubs and mothers' meetings, as being all of them more or less instrumentalities which tend to the formation of those thrifty habits, which, when acquired by labourers, are so valuable to their employers. One way in which labourers incur much unnecessary loss is connected with small village shops. It not unfrequently happens—owing, perhaps, not to the shopkeepers, but to those who supply them—that the goods sold in these are very much adulterated as well as dear, and that when long credit is given the accounts are not kept as accurately as could be wished, yet the labourer, being in debt, even though he is fully aware of the disadvantage at which he is laying out his small amount of wages, has no alternative but to continue his custom. There is no better antidote to this than a good co-operative store in every village. These in London and all our large provincial towns are found to be of the greatest advantage, not only to the working classes, but even to the middle classes and gentry. Wherever the same system has been tried in small towns and villages, it has been successful. Not only by this means are unadulterated articles at low price secured, but ready money being an essential part of the system, habits of debt are discountenanced, and the labourers, as many of them as take shares in the stores, find the advantage of such investment so great, as to disincline them to waste their money in other ways. A co-operative store, in which all the inhabitants of a parish should join together for the purchase of the necessaries of life, would be equally beneficial to all classes; would enable farmers, as well as labourers, to lay out their money to the best advantage, as well as encourage thrifty habits in all. After all, however, there is nothing which so much tends to degrade and pauperize the labourer as the habit which to such an alarming ex-

tent prevails almost everywhere, of dependence on the Poor Law. Had there never been a Poor Law in this country there would have been no paupers. The really poor and sick and afflicted, the deserving poor—if I may use the term in contradistinction to the word pauper—those whose condition is owing to no fault of their own but to causes over which they had no control—and the number of such persons is comparatively small, would have been much more amply and cheerfully provided for than now by voluntary benevolence, the genial flow of which would not then, as now, have been checked by the indiscriminate and compulsory maintenance of the undeserving, many in number, as well as the deserving few. The time, it may be hoped, is not far distant, when the growing feeling of the country will be realised by the abolition of the Poor Law. This, which, to an extent which cannot be contemplated without alarm, demoralizes the working classes, presses hard upon the employers, and even to a certain extent tends to demoralize them, for it tempts them, often through mistaken kindness, to the expedient—which is fatal alike to the independence and well being of all parties concerned—of keeping wages low, with the relieving officer as the resort in sickness and old age; whereas a better scale of remuneration for work done would be more than repaid to the employer by the absence of all call for poor rates, and the labourer would be roused by the certainty that if he did not out of his increased resources lay by for a time of need, he could have no legal claim, as now, for a reward for his improvidence. Who is bold enough to deny that a class of labourers, such as I have above described, would be a gain both to themselves and to their employers? Nothing would render greater assistance to the formation of such a class of labourers than education. I am no advocate for over-education. But to be able to make out and cast up a bill, to write a well expressed, correctly spelt, and legible letter, and above all to read with fluency, ease and pleasure, so as to be disposed and able to acquire all such information as is necessary for the formation of the character and habits above described, as well as becoming a skilled workman, is in the advanced and continually advancing condition of agriculture quite indispensable. Whereas some fifty years ago, or even less, land was cultivated on nearly the same system as had prevailed for centuries before, and which required from the labourer neither skill nor knowledge, at the present time agriculture has become a science, and a labourer who has some knowledge of the principles on which the science is based, and skill in the handling of the intricate machinery by which human nature is now so largely supplemented, is much more valuable to his employer. Mr. Edwin Chadwick in his address on the opening of the last session of the National Association for the Promotion of Social Science, goes so far as to say (p. 21): "There are probably more sound mechanical inventions and labour saving, processes unused, than there are used in agriculture, and the barrier to their use is the ignorance of the working classes." The farmer has as much interest in the education of the labourer's children, as the labourer himself has. I say to the farmer, then, determine, even at a small present sacrifice, though I hardly think any sacrifice at all will be involved in doing so, to employ no children except they can bring a certificate from a competent authority that they can at least read fluently, write a good hand, and know enough of arithmetic to make out and cast up a bill. Never tempt them by offers of work to leave school till they have had time to acquire at least the above amount of education. Rather make a condition with those labourers whom you employ, that they must from the earliest age send their children to school. Do not tempt the mothers away to work in the fields, to run on errands, and so force them to keep their children at home to mind the house and the baby. Home is the place for wives and mothers, school for children. Field-work after a given age, and when they can read, write, and keep accounts, is the sphere for boys, domestic service for girls. Not only after such previous teaching will they be more skilled in their several spheres, but, which tends even more perhaps to their value as servants, they will be more likely to be sober, industrious, and trustworthy. This holds still more good as regards religious instruction. Put no obstacle, such for instance as work not absolutely necessary, in the way of a labourer and his family keeping the Sabbath and attending his place of worship. Rather give him any encouragement to do this, and to send his children to Sunday school. Where a certain amount of Sunday work, as for instance tending of cattle and sheep, must be done, the farmer,

who is alive to the value of having a religious man in his employ, will arrange, as far as possible, that each of his labourers should take his turn, and so none entirely miss the blessing of the Sabbath. In those parishes, which in different parts of the country are not few in number, in which the farmers, their wives, and daughters take a personal interest and part in these matters, teaching in the Sunday school, visiting the day school, noticing the needlework and knitting, and in always, by precept and example and personal interest, by encouraging, with little presents and acts a kindness, the parents and children who are doing their duty in these respects, and so setting a mark upon those who neglect it, it is wonderful what a rapid and steady improvement there is in the character of the agricultural labourer, and, consequently, in the cultivation of the land and the prosperity of the farm. There is nothing better for maintaining and carrying forward the amount of education required at school than good loan libraries of interesting and instructive books. None should be allowed to take the books out except members, and the rate of subscription for membership should, of course, be less for labourers than for citizens, shopkeepers, and farmers. Of such paramount importance is it to the farmer—now that agriculture is so much more of a science, business and profession than it was, and that the machinery employed, and which, to a much greater extent than now, must be employed by any farmer who, in the midst of a host of competitors, wishes to hold his own, requiring such skilful and trustworthy management that the labourer should be much better educated than now—that it will be well worth the time and attention of this chamber and other chambers of agriculture in England, to watch carefully the progress through Parliament of the Government Education Bill, with the view of improving it in any respects in which it does not sufficiently meet the wants of the agricultural districts. I have now as far as time permits, though necessarily very shortly and imperfectly, sketched out to you what, as regards his home, his work, his wages, his moral character, his religious and secular training and education—the six features which appear most prominent in his position—the agricultural labourer ought, in my opinion, to be. We are all agreed, I am sure, as I have hinted before, on the value of a well stabled, fed, groomed, and trained horse, or on the shortsightedness of the policy of those who in any way neglect their horses or other stock. A labourer, such as I have above described, is equally, or even more valuable, both as a more effective servant, as a saving of that which, of all burdens, is the most oppressive to the farmer—the poor rate, and as facilitating the use of machinery, and so making a higher class of cultivation possible with fewer hands, and, consequently, less cost. Moreover, unless the condition of the agricultural labourer be brought up to, and maintained more or less at the mark above described, with the present facilities for emigration, and the earnest desires of the colonies—as more than once expressed to me by those eminent ex-colonial governors, Sir William Denison and Sir George Grey—to possess themselves of our best agricultural labourers, the back bone of the country is sure to leave it, and nothing remain but what is nearly worn out. Is it likely that a young, healthy, intelligent labourer, who on landing in Australia would be eagerly sought for at three times the wages he gets here, with an active wife who would nearly double his own earnings, will forego all these immediate advantages, with the certainty, moreover, after a few years' service, of a farm of his own, and cling to a few shillings a week wages, a tumble-down cottage, and the Union for his home as soon as he is crippled up with rheumatism or premature age by over-toil and unwholesome food—is it likely that he will sit still simply because a not after all very unpleasant voyage of a few weeks separates him from a land which, when he reaches it, he will find as rich in soil and better in climate than that which he leaves, while constant communication with the old country may be maintained by post and telegraph? Is it wise in landowners and farmers to sit still, instead of doing all in their power to stay this exodus, as long at least as there is room in old England? Would it not be far wiser to endeavour to attach these most valuable servants to home by making home something more like what it would be if they emigrated to Australia? I do not offer any opinion as to how far the labourers in this district come up to the mark sketched by me. This is a matter of which you, my hearers, are the best judges. All I say is, that, as a mere matter of pounds, shillings and

pence, it would pay well everywhere to bring them up to this mark. In his address already quoted, Mr. Chadwick, p. 17, says: "Mr. Brassey, who has made railways in France, in Italy, in Germany, in Russia, and in India, tells me that, with the exception of about 10 per cent. in one part of Germany, and about 40 per cent. in earthwork in India, he found the higher priced labour of England as cheap as any in the world. And other engineers have told me the like. Now what is the economical result of two having the efficiency of three? It is that you save the food, the clothing, and the house room of the third—in fact, that you save a third capital, or create a fund which may be divided as extra wages between the other two, as in point of fact it is to a great extent, leaving some extra profit to the capitalist." And again, at page 22: "Mr. Paget, the late member for Nottingham, came forward at the recent meeting of the Educational League at Birmingham, and stated that he had for more than 17 years maintained a half-time school, chiefly for the children of the agricultural labourers working on his farm. He avowed that he did this as a matter of business, and it answered him commercially, in the production of more intellectual and better labourers; and his bailif, too, was of opinion that it answered as a matter of business." There are many reforms needed for the benefit of farmers. Game, for instance, is very destructive, and ought to be dealt with, as I think, in a way which would protect the farmer much more thoroughly than is contemplated in the Bill now before Parliament. The incidence of taxation also is a very important subject connected with farming. If, as is supposed, the local taxes fall heavier upon land than upon other kinds of property, the balance ought to be fairly adjusted. It might be well also, as was suggested by Mr. Dashwood in a paper read last year before the Farmers' Club, at the Salisbury Hotel, in London, if the owner were made to pay half the amount of local taxes, instead of all being paid by the occupier, and that all compounding for rates should be abolished. Landowners and labourers would thus acquire such an amount of personal practical knowledge about the rates, and interest in them, as would greatly tend to control extravagance and mismanagement. Leases for a fair term of years, Tenant Right on a fair scale of remuneration for improvements made during his tenure by the occupier, and legislation providing against the very large accumulation of property in single hands, are all subjects which might be dealt with more beneficially to the farmer. Such matters, however, are in the hands of Parliament. I hope a better adjustment of these things may not be too long delayed. Except, however, by ventilating such sort of subjects in these chambers of agriculture, and pressing your views upon your representatives in Parliament, and so upon Parliament itself, you can do little or nothing towards accelerating the always somewhat slow action of legislative bodies. You must patiently bide the time when you will lawfully reap the benefit which you hope reconsideration of these matters will secure to you. On the other hand, the many unquestionable and really solid advantages which I have shown you would accrue to the farmer by improving the condition of the labourer as above described, you can yourself, with your own hands, and without waiting for the legislature to help you, secure for yourselves. If you will really set about the work, over and above conferring an inestimable benefit on the labouring classes and on the country at large, you can yourselves make a large and immediate profit, and no one can hinder you. I have thus far argued this matter solely in a commercial spirit, with a regard simply to profit and loss, to pounds, shillings, and pence. But, though addressing you specifically as one amongst yourselves, a member of a chamber of agriculture, I must not, I cannot forget, that I am a Christian minister speaking to Christian men. I hope the remembrance that such is the case may have saved me throughout from uttering a single word which can justly give offence to any one. I am sure that every one present will strongly sympathize with me when I conclude by reminding you that though, as I have already at length shown you, the labourer, like the horse or any other animal, pays better the better he is housed and fed and generally treated, yet to the labourer we are charged by that Gospel which we profess to believe with a duty of a far higher character. In dealing with those who, unlike the brute creation, are bone of our bone and flesh of our flesh, who are members of the same family as ourselves, of which Christ is the head, who are heirs of immortality, it is pleasant to find that our own personal interest and profit

here are identical with their temporal and eternal welfare, and our duty to them as brothers in Christ. But we must not forget that, even if the reverse were the case, we should, as Christian men, be bound to do our utmost to improve their condition, and could not, at least in God's sight, evade the responsibility, asking "Am I my brother's keeper?"

At the adjourned meeting, Mr. WADE, the chairman, said the principles they were advocating were very important. Some people appeared to argue as though everything had to be done for the working man, and not by the working man. That was a mistake. What was wanted to be done for him was to raise him in the social scale, to make him a more truly independent man, a better labourer, more frugal, a less frequenter to the cider shop, and more constantly home after his day's labour, with his wife and family. He entirely agreed with Canon Girdlestone, that something should be done for the labourer, with the view of providing him with a better house, and he sincerely wished that every working man had at least two good bedrooms. Just now they were hearing a great deal about education, and he asked if they considered a child's education was finished when he left school at thirteen; what prospect was there of a boy learning farming practically, or of becoming a good labourer, or of learning other duties he would be called upon to perform in after life? The fact was, there was no system at present laid down. A farmer at the present moment was less independent of manual labour than ever he was, because he no sooner would correct a boy of 14 or 15 years of age than the lad would say, "I will leave you on Saturday night," and perhaps would go into the town. Legislation was required to deal with this and other difficulties, arising out of the conduct of boys between the ages of 15 and 18. He suggested the boys working on farms should live with and be under the control of their parents, and that they should be paid a graduated scale for their services, similar to that adopted under the Workshops and Factories Act. It was high time some change was effected with regard to the agricultural labourer, for now not more than one labourer in a parish could be found to make faggots, whilst if a farmer wanted a rick to be thatched he had to hire a professional man to do it. This afforded ample proof of the great necessity for adopting some kind of system to ensure the raising of the abilities of the labourer to a higher point than at present.

Mr. WATSON thought that some were disposed to think the tenant-farmer a great deal more independent than he really was. The tenant-farmer, as a rule, was seldom in the habit of acting of his own accord; he had, in fact, a kind of wholesome dread of his betters, and hence it was he seldom took any decisive action of his own. He had carefully considered the subject before the meeting, and he could come to no other conclusion than that the best way to improve the agricultural labourer would be by improving his wages. He would give the labourer the option of having the cider or not. The withdrawal of cider from the men was an attempt, he thought, to make them teetotalers. Teetotalism might be very good in its way, but he had a great objection to its being compulsory.

Mr. KNOWLES thought the great obstacle to the increase of manual labour resulted from the fact of so many thousand acres remaining uncultivated. Many of the large landowners cultivated their land in the outset, but finding it did not pay, let it off. He would ask what was the reason it did not pay? Because it was so overrun with rabbits and hares. He maintained that the owners of coppices and preserves ought to pay much heavier taxes than they did at present. The worthy Canon had commenced firing at little birds, with a view, he supposed, of frightening the big ones, but he trusted that for the future he would direct his attention to higher game.

The Rev. J. M. HAWKER said the light in which cider ought to be given, was not in consideration of any portion of men's wages, but rather with a view of sweetening their labours, for in his opinion cider was one of the most wholesome beverages they could have.

Mr. NORRICOKE did not believe that the labourer either stood in need of cider, or that it did him any good. His experience had taught him this. In fact he (the speaker) was a much better man since he had abstained from drinking cider.

Mr. SOWTON considered that agricultural labourers had much deteriorated since the abolition of parish apprenticeships, and suggested that the legislature should adopt some means to remedy existing evils.

Mr. STOOKE moved: "That this Chamber desires to ex-

press its approval of the generous efforts of the Rev. Canon Girdlestone to improve the condition of the agricultural labourer; but, at the same time, considers that, whilst wages is properly an employer's question, the condition of the home-stead or dwelling of the labourer, as stated by the Rev. Canon, is mainly an owner's question; and this Chamber is also of opinion that the Rev. Canon might, with equal propriety and effect, extend the area of his observations to labourers in general." He did not approve of too much attention being paid to the comforts of the labourer, to the entire exclusion of those of the tenant-farmer. However, if something was not done, it was evident the labourer would emigrate.

Mr. FORD seconded the resolution. He contended that the comforts of the agricultural labourer were equal, if not superior, to those of the towns. He referred the worthy Canon to the deplorable condition of labourers, as regards house accommodation, in the fashionable places of Torquay and Newton and other towns.

The Rev. Canon GIRDLESTONE said they had differed on matters of detail rather than on principle. They were all agreed that the condition of the agricultural labourer required

improvement. He agreed with the Chairman's remarks, with the supplementary remarks as to the carrying out of the practical education of the labourer after leaving school. As to the cider question, he did not object to labourers having cider, but he did object to its being kept back out of their wages. He did not believe in helping the labourer so much as teaching him the way to help himself. When he was last here he attended the Newton Board of Guardians, and he was extremely interested in the manner in which the business was transacted, and it was evident from what he saw that the poor-law was administered with remarkable skill and judgment. This led him, when he returned home, to examine the statistics, comparing those of the Newton Union with those of the Tiverton, and he must say that the comparison was considerably in favour of the former. This arose from the fact that at Tiverton the guardians were pretty well of one calling, whilst at Newton they were various, and, as a result, a greater amount of experience was brought to bear on the administration generally. It would also be seen that indoor relief was more rigidly enforced at Newton, and which he regarded as one of the greatest tests for keeping down pauperism.

The motion was then agreed to.

THE EGG OVENS OF EGYPT.

My guide stops before a low door, which I am informed is the entrance to the egg ovens. The door is slowly opened by a swarthy individual, whose entire clothing consists of a loose kind of shirt and a turban, disclosing to my view a chamber or divan, round which are seated four or five old men smoking vigorously. In the centre of this group are eggs heaped in small pyramids, crates filled with eggs, baskets of eggs, earthen bowls containing eggs, while outside are several donkeys tethered to the walls, each bearing its freight of eggs. One old man, the head, I presume, at first sternly objects to my viewing the process by which, with artificial heat, chickens are produced, asserting his belief that I am only come to spy out their secrets. This I know is only a scheme to extort a large "baksheesh"; but an offer to pay liberally removes every scruple, and I am conducted to the egg ovens. Very much after the fashion of the burrowing mole, I contrive to wriggle through a long dark kind of tunnel, to reach at last a large vaulted chamber, built of sun-dried bricks. The air is hot and oppressive, and I wish I could have left my nose outside.

All round this chamber are small circular openings, which, without actually measuring, are, I should say, about three feet in diameter; each orifice or mouth leads by a short arched passage into an oven about twelve feet in diameter. These ovens are not quite circular, but nearly so; the roofs are domed, and contrived with a kind of fire-chamber over them; the apertures leading to the fire-chambers are the same size as the openings to the ovens, and only large enough to admit a boy to pass through. From each fire-chamber there is likewise a communication with the oven to which it belongs. In the domed roofs of the ovens, and in the roof of the room there are holes that can be opened or closed at pleasure; these serve the twofold purpose of letting out the smoke and letting in air and a dim hazy light.

Egg-hatching, I am informed, is only carried on during three months of the year—April, May, and June. The hatching establishment is called a *maawal*, and the proprietors can set twenty ovens working at the same time, each oven containing about five hundred eggs. Supposing the ovens in full work, there will be about ten thousand eggs hatching at the same time. The eggs are supplied by the peasantry, and there are two systems of purchase. Under one system, the hatcher pays down an agreed sum to the peasant for eggs; under the other, the owner of the eggs leaves them with the hatcher at his own risk, the latter covenanting to return one chicken for every two eggs. The material employed for heating the ovens is called *yelch*, a fuel composed of the offal of animals, worked with straw and water into cakes by women and children in Cairo. This is kept smouldering slowly in the fire-chambers

above the eggs, as well as in troughs made of mud bricks encircling the eggs.

The first oven I was shown contained about 500 eggs, which had only been in three days; these were arranged in circles round a central egg; underneath the eggs was a coarse description of rush-matting. The temperature was 96 degrees Fahrenheit; and here I may remark, that these egg-hatchers know by experience the proper temperature at which the ovens should be kept, even to a degree or two, being guided entirely by their external senses, for they employ no heat-gauge whatever. In oven No. 2 the temperature was rather over 100 degrees Fahrenheit, and the eggs—about the same in number and arrangement as in No. 1—had been in 14 days.

Arriving at No. 3 I could distinctly hear, even before the interior was unclosed, feeble squeaking sounds, as though a large choir of young birds were practising part-singing. In this case, before the oven was opened "the birds began to sing." On putting my head through the aperture, when opened, before me was one of the most interesting sights I ever beheld; for, running and scrambling over the circles of eggs, and gathered together in groups against the walls were woolly little chickens of every shade and colour, while some about half-way out of the egg-shell, and others with only the head protruding, piping their mellow cries. Whether they were cries of joy, complaints of a mother's neglect, or caused by anxiety to escape from their hot prison, must be left to the decision of those more learned in the bird-language of the East than myself. These eggs, I was informed, had been in the oven 21 days, which is about the period of natural incubation, and the temperature, when I saw the chickens, was exactly 130 degs. Fahrenheit. The chickens are taken from the oven during the day; the strong and vigorous are to be sold, the weakly ones being placed in a chamber constructed for the purpose, there to be fed and nursed.

Very few, if any, eggs of domestic poultry (by poultry I must be understood to mean fowls only) are incubated naturally. The chicken-ovens are employed throughout Upper and Lower Egypt. The amount of work accomplished by these primitive, but most effective, contrivances may be gathered from a statement published by order of the government in an Egyptian newspaper, in which the number of establishments for the hatching of fowls' eggs in Lower Egypt is given as 105, and in Upper Egypt as 99. The number of eggs hatched in Lower Egypt is 13,069,733, and the number spoiled 6,255,867. In Upper Egypt the number hatched is 4,349,240, while the number spoiled is 2,529,660.—*Travels in Egypt.*

THE LINCOLNSHIRE AGRICULTURAL SOCIETY.

MEETING AT SLEAFORD.

With its resources and a purse like unto that of Cæsus, if we may judge by the way everything is done, this Society ought to be one of the best and most perfect gatherings in the kingdom; as it will be, if the management will pay a little more attention to trifles. They are, indeed, going a-head in the right direction, as the conduct of the yard was a wonderful improvement to that of last year, when chaos reigned at Lincoln. The conduct of the horse ring was worthy of much praise, for the classes came in orderly and without loss of time, were nicely numbered, and the winners' figures duly hoisted on some capital telegram boards. Then no intruders of any kind were allowed within during the day, and there was no interruption to business caused by any jumping. But if the horses came in without delay they did not go out again in a hurry, for never were judges more dallying. This, though, was according to order, as it was thought that if the award could be spun out for a couple of days it would attract more people. A greater mistake was never made, as there was nothing worth naming left for the next day, whereas if the judges had been allowed to commence at eight instead of ten, and had gone to work like men, they might have got through the classes in ample time for a general parade, and so sent the visitors away pleased and entertained instead of wearied out. The laying out of the yard and shedding, as at Lincoln, was capital, with plenty of room behind the horses for a stroll through, and a famous horse-ring encircled by the strongest of rails, while a grand-staud was in the course of erection, with its patch of scarlet in the centre, like the squire's family pew in some village church. It would be just as easy we think to be ready a day before the fair as a day after, as there is nothing so unsightly and slovenly in a show-ground as to see the mallet and saw in full swing after the visitors are admitted. Again, the public ought not to be kept an hour without a catalogue; and another thing that some one should attend to would be the superintendence of the first-rate boxes where the stallions stood, and impress on the men in possession, who were furnished with locks, keys, and shutters, that they brought their horses to Sleaford not only for a chance of a prize, but for the public to see. As it was, many of the horses, boxed up and locked up as they were, might just as well have been on their way home by express. Further, the prize cards should have been distributed immediately, and posted in the sheddings of cattle, sheep, and pigs, as well as the horses, as they only had the colours put by the side of their numbers, or stuck to the animals' heads, under the ear, on the back or the tail, according to the fancy of those in charge. Then the number of the class on the prize cards, over the horses' heads, was much too small. All this should be rectified, so that the public may gain some little information from a well-got-up shilling catalogue, on which was advertised "Public Dinner Tickets, *in addition to wine*, for four shillings," while the purveyors on the ground were allowed to charge the public three and sixpence for cold meat, a sum for which any one may dine like a gentleman at the Grantham "George."

There was a grand collection of animals, the Shorthorns and horses contending for precedence, the one headed by Bolivar and the other by the Hermit. The latter three years ago we saw with his coat staring, being dragged as it were along by a lad in the dip under the plantation at

the Durdans end of the paddock at Epsom, almost unnoticed, and in an hour afterwards standing on the brow, stripped, with head erect, eye dilated, nostrils distended, and his coat glistening with sweat, covered with a net-work of veins that his heated blood played through—the hero of the day when the betting mania was at its zenith! For this horse, now going for the twenty as the best thorough-bred hunting-stallion, is no other than the Derby winner of '67, that did so much for the Squire of Blankney and the Cathedral of Lincoln.

Doubt and mistrust is thrown on Heaven,
And all its power to chance is given.

With how much more pleasure do we scan his beautiful frame in the ring at Sleaford, a sight alone worth double the charge of admission to gaze on! And we think we are not saying too much when we do say that he has grown into one of the neatest, handsomest, best-proportioned, good-limbed, muscular, short-jointed horses, entirely free from lumber, that we ever saw. The second best is Rapid Rhone, that a first-flight Yorkshireman by the side of the ring tells us was always a favourite of his; and that poor Bullock declared, in tears, he must have won the Derby on had not Lord Glasgow deprived him of the asphalt a friend handed him after being stripped of his whip and spurs. We do not always go hand and heart with our Yorkshire friend in his opinion of a horse, more especially hunters; but we do agree with him about Rapid Rhone, of whom, when shown at Lincoln last year, we thus wrote: "Rapid Rhone by Young Melbourne, dam by Lanercost, was one of the late Lord Glasgow's roans; but is now standing at Blankney, and we recollect seeing him run third for the Derby when Lord Clifden or Macaroni won. He is the colour of a Norfolk trotter, and has a good head, strong neck, and well-laid shoulders, with a nice rise in the withers, a good back and loin and deep rib, strong muscular quarters, arms, and thighs, with knees and hocks near the ground—adding to this plenty of length, he is anything but a bad horse; in fact, the roan has always been a favourite of ours, though his colour is against him." Then, there was Ratacatcher, a well-known prize horse in this county, shown last year at Lincoln, and third at Bury St. Edmunds, where we then described him as "a model of power, barely fifteen two, with legs of iron and great substance below the knee, but taking somewhat after his sire in thickness of shoulder;" while with less flesh he looked better than last year. Odd Trick was also at Lincoln, when we described him in full; if anything there is less of him now. The Lancer we recollect seeing at Leicester; he has a good forehead but is light below the knee, and he falls off behind, with his legs too far away from him. Rallywood, by Newminster, was bred by Lord Falmouth, and has been hunted by Mr. Welby; as he is only four there is every probability of his thickening into something useful; while Broomielaw, that harum-searum restless animal, is as leggy as a fowl, and his middle continually reminds us of the apothecary in Hamlet, who had more physic than fodder. Strathern was in the roll, but did not enter the lists. In a good class of hunting brood mares, with some rubbish in the ruck, the judges again went for blood in awarding an old racing brood mare, Juanita Perez, by

Melbourne, in her nineteenth year, first honours—a lengthy lathy nicely-made mare, too; while the third at Oxford, Heliotrope, who we then said had too much of the coacher, was second. Putting the third in her place, a powerful Irish chesnut mare of breed, would have pleased us better, with Mr. Grove's brown game-looking mare full of hunting character third. Mr. Byron exhibited a mare of nice character, but very deficient below the knee; then Old Marigold, in her twenty-fifth year, looked as well as ever, but, as might be expected, there was not much go in her. She is a grand old mare barring the shoulders; nevertheless, Mr. John Booth says he was never carried better for six seasons; while her foal by The General beat the lot. Mr. Smith's useful old mare by Loutherboung and Mr. Marfleet's bay by Brilliant were, among some others, worthy of note. Mr. Booth was again to the fore with Brian Born, who is now almost as well known in the ring as himself, followed by Mr. Paddison's bay gelding by Gobbo, who last year was noticed as "going very oily and like a hunter, and in another year will take some beating." He now turned the tables on Mr. Clarke's (Sleaford) bay Motley horse that he played second to last year—a lengthy powerful evenly-got-up horse, that does not bring his hind legs well under him in his gallop. It was a great pity, we thought, that, with so grand a ring, the judges or some of the officials did not remove a few of the hurdles that separated the two sets, while the hunters were ridden before them, as they could have seen them extended so much better. Mr. Maxwell's bay mare Adelaide was the reserve number; and Mr. Goodson's thick-set Robin Rough, Mr. Coate's Hero with something taking about him, and Sir H. Bacon's brown, were of hunting form, and could move. In the four-year-olds Mr. Paddison won with a very nice horse by Epicurian, beating the first and second at Islington, Comrade by The Swell, and Borderer by Clausman, both now the property of Mr. T. H. Bayley. Comrade we did not consider a hunter at Islington, but more of a charger or match horse, and we were backed in our opinion by one who, we should say, has given and received higher prices for hunters, taking numbers into consideration, than any man in the kingdom. Mr. Bingham's The Admiral, who came out at Beverley last year, is a horse of breed, but looks more like steeple-chasing or hurdle-racing than hunting, and, like Broomielaw, wants a dose of cod-liver oil, as his corn evidently does not agree with him. Mr. Clarke, of Howden, came in for a commendation for Cracksman, a flash-looking, gentlemanly horse, with four white heels, somewhat of the Sprig-of-Nobility stamp on a smaller scale; while he was highly commended for Chieftain, by Carbineer, who, we think, would have fared better at Beverley, where they were both shown as three-year-olds, had he not gone a little tender. Lord Kesteven's bay mare by Richmond was compact and well put together, but did not succeed in the light-weights, where she was beaten by Upstart, a bay horse of fair form, that could move. Mr. Cross's and Mr. Wyle's were worthy of notice; and Mr. Welfitt's Caller could go, but he is rather coarse. Loiterer, a third at Islington, and a useful horse for general purposes that we should fancy was as slow as a man in his gallop, got the prize here, beating a big brown horse, Grindstone, by Cornerstone, of Mr. Dudding's, that, we think, would be more in his place bearing an officer to and from Knightsbridge and the Horse Guards. Among the others were Mr. Goodson's Robin Rough, Mr. Nell's Shylock, mentioned in a previous class, for the same horses were shown on several occasions. Lothair, the best three-year-old, by a thorough-bred horse, was of a gaudy colour, and light of bone but a sweet oily goer; and Speculation was a very showy one. Mr. Brewster's

filly Patch by The Earl of Surrey was of good form, with peculiar formed pasterns, but a loose easy goer. The two-year-olds, yearlings, and foals were well represented with many promising things amongst them. The hackneys were not in such great force as the hunters. Fireaway, a very showy rich chesnut from Downham Market, and who has often shown himself in a ring before, wore the prize-ribbon for roadster stallions, and Young Quicksilver, a horse who beat Mr. Pearl's Ambition at Lincoln last year, was second in a class of ten, including a very fashionable flourishing grand parade sort of three-year-old of Mr. Milward's, while Thugarton was first in the ponies not exceeding fourteen, beating a rather clever black four-year-old cob, and a very clever bay with a long mane of Mr. Vincent's, called Welby. There were a few roadster mares, Peg being of the right stamp, and the well-built Sally of Sleaford knew how to use her legs, as a fading old dowager of form and character of Mr. Powers, came in for a high commendation. The beautifully made old grey mare Beda was first for both cobs and hackneys, not having anything very grand to oppose her. In the ponies under thirteen hands the winner turned up in a nice one by Croton Oil, beating a dun of Colonel Astley's that we fancy we have seen his owner driving round the ring at Islington, and a handsome little white one of Mr. Seels, with several others.

The agricultural classes were not strong, but the horse of the day, Honest Tom, was first in the stallions, while the second, a grey with middling feet, some thought ought not to have beaten Mr. Mannings's gaudy coloured Young Champion, the second prize at Oxford. There were eleven in the class, but most of them under lock and key. There were some very useful draught brood mares with foals of power and substance, and Royal Duchess, the first at Manchester as a two-year-old, and first at Oxford this year, had only one to beat here, Mr. Wyles' Flower, a niceish roan filly. Royal Duchess was got by Mr. Kirkby's Champion, who went for honours in the stallion class. There were three pairs of fair draught horses, but not equally matched, which is very often the case, while there was a capital team of roans under excellent command, who walked over for a red waggon, there being no opposition. Five two-year-old fillies, with a good one or two among them; two neatish yearling fillies; four or five colt foals of fair promise, and a nice cart filly, with half-a-dozen ordinary animals in the extra stock made up the agricultural horses.

The show of Shorthorns was grand and a credit to any yard, comprising many animals of note; amongst these the Manchester and Oxford bull Bolivar, who won the champion prize, though the Marquis of Exeter's Telemachus, quite a beauty in mould, substance, and quality, was the reserve number, Heydon Duke third, and Bythis fourth—was how the judges placed them in a class of seventeen. Robin, bred by the late Mr. Foljambe, has great style and character, Baron Torr being very much off his legs, while Charlie was wonderfully got up, and is, we believe, an own or half-brother to Bolivar. Telemachus, of whom we can scarcely say too much, as there was a prize for everything, came in for the two-year-old premium with only two to oppose him, and the judges also awarded him an additional prize as the best bull in the three classes; while Heydon Dukewas the champion yearling, Bythis being disqualified as a Royal winner. Travelling, however, does not seem to agree with the Duke, or his trainer has not the knack of keeping him in condition like Bythis. The Duke of Morton is a lengthy animal, bought at Mr. Hodgkinson's sale; Mr. Lynn's bull calf is a famous one that would hold his own anywhere, while Mr. Betts' is a nice one, Lord Aberdeen a promising young nobleman with good hair, and the Stan-

ard Bearer is a very useful animal. The Queen of Rosalea, with her grand form, has winning ways; for she fixed the eye of the judges in spite of Lady Anne's sweet head and kind eye, her wonderful barrel and blooming looks—the reserve in a capital class, and a prize-taker as a three-year-old heifer, having had a calf in a very good lot. Amongst a moderate lot, Magnolia, a first-prize cow at Peterborough and a perfect specimen of a Shorthorn, was first here a long way. Mr. How was again to the fore with his gem the beautiful Windsor Butterfly, Mr. Searson's second having a good frame and quality, while the judges took some time to decide between Lord Braybrooke's Memory and Lady Pigot's La Belle. The Countess of Yarborough, who was second at Oxford, was the best yearling heifer, and the blood red Vesper Queen, with her taking form and pretty loin, came in for a second instead of a third as at Oxford. Then it was a near thing between Lady Pigot's Dame Swift and Mr. Poljambe's Consort, both excellent animals. The heifer calves under one were a very pretty lot, Fleurdelis being better in her frame than quality, while the second was a very nice one, but sharp in her hair, and Prize Rose, a first at Peterborough, a trifle flat in her sides but with grand quarters. There was a very smart red ox, but the judges did not advise his being sent on to Smithfield.

In a good show of sheep Mr. Borton led off by playing first and second in the shearings, and two shear rams or older, though the Oxford shearing only came in for a high commendation, being, as they said, lame, but as we said quite out of his place at the Royal Show; while the awards in the ewes were the same as at Oxford. The Lincoln shearing rams were useful sheep, but the two-shear were better, the first and second being very even. The three-shear were an average class, the first and second being both very good. Still the Lincolns were strongest in the ewes, which were capital, and the shearing gimmers extraordinarily good; while the shearing wethers were uneven, and the ewe lambs indifferent, but in the extra stock there was a five-shear ewe that had kept her wool and mutton together wonderfully well. For the challenge cup and fifteen guineas the two sets of judges (Lincoln and Leicester) stuck to their sheep like Britishers to their guns, and there being three on each side, the old game of pull devil pull baker was tried; but as neither party proved the stronger, they departed without giving a decision; though Mr. Borton wished to appoint an umpire, or have the guineas divided; but Mr. Torr did not see it. The show of pigs was strong in the white breeds, with about half-a-dozen Berkshires scattered through the entry.

JUDGES.

SHORTHORNS.—W. Sanday, Holme Pierrepont, Nottingham; C. Howard, Biddenham, Bedford; G. Drewry, Holker Grange, Lancashire.

LEICESTER SHEEP AND PIGS.—G. Mann, Scawsby, Doncaster; R. Woods, Osberton Grange, Worksop; J. Spencer, Snaresdon Lodge, Ashby-de-la-Zouch.

LONGWOOL SHEEP.—W. Chatterton, Tathwell Cottage, Louth; J. O. Daintree, The Grange, Lotworth, Huntingdon; J. L. Needham, Huttoft Grange, Alford.

HORSES.—**Hunters:** J. E. Bennett, Husband's Bosworth Grange, Rugby; T. Elerby, Whitwell, York; H. Thurnall, Royston. **Hunters and Roadsters:** C. Wood, South Dalton, Beverley; H. Beevor, Blythe, Worksop; S. Robson, Louth. **Agricultural horses:** J. B. Watts, Melcombe Horsey, Dorchester; J. Rowland, Eastville, Boston; S. Smeeton, Kirton, Boston.

WOOL.—G. E. Townend, Bradford.

POULTRY.—W. B. Tegetmeier, London.

CATTLE.

SHORTHORNS.

Best bull,—Champion prize of £30, C. W. Brierley,

Rhodes House, Middleton, Manchester. Highly commended: The Marquis of Exeter, Burghley Park, Stamford.

Bull, three years old or upwards.—First prize, £15, Messrs. Dudding, Panton, Wragby; second of £5, T. Statter, jun., Stand Hall, Whitefield, Manchester.

Two-year-old bull.—First prize, £15, the Marquis of Exeter; second of £7, Earl Brownlow, Belton Park.

Yearling bull.—First prize, £15, Lord Braybrooke, Saffron Walden; second of £7, W. W. Slye, Beaumont Grange, Lancaster; third of £3, P. Brown, Glentworth Hall, Lincoln. Commended: Messrs. Dudding.

Best bull.—Additional prize of £15, the Marquis of Exeter.

Bull calf under a year old.—First prize, £10, J. Lynn, Stroxtun; second of £7, W. Bett, Benniworth, Wragby; third of £3, R. Wood, Clapton.

Bull, above one and not exceeding four years old, which has served cows during the present year, or the owner of which will undertake that he shall serve cows in Lincolnshire during the next year at a charge of not exceeding £1 ls. each.—First prize, £20, P. Brown, Glentworth Hall, Lincoln; second of £10, Earl Brownlow; third of £5, Messrs. Dudding.

Bull of any age.—The challenge cup, value 20 guineas, W. C. Brierley.

Cow or heifer, in milk or in calf.—The champion prize of £25, Lady Pigot, Branches Park.

Cow, more than four years old, having produced a calf within nine months of the time of showing.—First prize, £20, R. Searson, Crammore Lodge, Market Deeping; second of £10, Messrs. Dudding.

Owner and breeder of the Shorthorn cow, not exceeding four years old, which shall exhibit the greatest dairy properties, with aptitude to fatten.—Silver cup, value £10, J. Lynn.

Three-year-old heifer, having produced a calf.—First prize, £10, J. How, Broughton, Huntingdon; second of £5, R. Searson. Highly commended: R. Searson. Commended: J. Lynn.

Two-year-old heifer.—First prize, £10, J. How; second of £7, R. Searson; third of £3, Lady Pigot. Highly commended: Lord Braybrooke, Saffron Walden. Commended: W. Bradburn, Wednesfield, Wolverhampton.

One-year-old heifer.—First prize, £10, Messrs. Dudding; second of £7, J. How; third of £3, F. J. S. Poljambe, Osberton Hall, Worksop. Highly commended: Lady Pigot.

She calf, under one year old.—First prize, £7, F. J. S. Poljambe; second of £4, E. Paddison, Ingleby, Lincoln; third of £2, J. Lynn. Commended: Lady Pigot and Messrs. Dudding.

Pair of bullocks.—A piece of plate or £10, Colonel Reeve, Leadenham, Grantham. Second prize not awarded.

Milch cow, having produced a calf, the property of a cottager.—First prize, £5, J. Nix, Ropsley, Grantham; second of £2, G. Watkin, Lenton.

Heifer, under two years old, bred by and the property of the exhibitor, as in previous class.—Prize, £5, G. Brunby, Hems-well, Kirton Lindsey.

SHEEP.

LEICESTERS.

Shearing ram.—First prize, £10, to J. Borton, of Barton House, Malton; second of £5, J. Borton. Commended, J. Borton.

Two-shear or older ram.—First prize, £10, J. Borton; second of £5, J. Borton. Highly commended, G. Turner, jun., Alexton Hall, Uppingham.

Pen of five ewes or gimmers.—First prize, £10, T. H. Hutchinson, Manor House, Catterick; second of £5, J. Borton.

OTHER LONG-WOOLS.

Shearing ram.—First prize, £15, R. Wright, Nocton Heath, Sleaford; second of £10, R. Wright; third of £5, J. H. Casswell, Langiton, Falkingham. Highly commended, R. Wright; commended, R. Wright and F. Sardeson, Cranwell, Sleaford.

Two-shear ram.—First prize, £10, Messrs. Dudding; second of £5, Messrs. Dudding. Highly commended, J. Byron, Kirkby Green, Sleaford.

Three-shear or older ram.—First prize, £10, Messrs. Dudding; second of £5, T. Cartwright, Dunstan Pillar, Lincoln. Highly commended, R. Wright.

Pen of 5 ewes.—First prize, £10, C. Clarke, Ashby-de-la-Launde, Sleaford; second of £5, C. Clarke.

Pen of 5 ewes, the property of an occupier of not more than 200 acres.—First prize, £7, R. Toynebe, Bracebridge, Lincoln; second of 3, W. Roe, North Searle, Newark.

Pen of 5 shearing gimmers.—First prize, £10, T. Cartwright; second of £5, J. Byron.

Pen of 5 shearing gimmers, the property of an occupier of not more than 200 acres.—Prize of £7, R. Toynebe.

Pen of 5 shearing wethers.—First prize, £10, J. Byron; second of 5 gs., C. Lister, Coleby.

For the best pen of ten she lambs.—First prize, £5, C. Clarke; second of £2, R. N. Morley, Leadenham, Grantham.

Extra Stock.—Prize of £1, J. Byron (Two-shear wether); prize of £1, - Sardeson (Pen of 3 ewes).

HORSES.

Thoroughbred stallion for hunters.—First prize, £20, H. Chaplin, M.P., Blankney Hall, Lincoln (Hermit); second of £10, Lord Glasgow's executors (Rapid Rhone).

Best mare for breeding hunters, with foal at foot or having been served in the season of 1870.—First prize, £15, G. H. Sanday, Holme Pierrepont, Nottingham; second of £7, W. Tindall, Ashfield House, Lincoln; third of £3, H. Chaplin, M.P. Commended: R. Graves, jun., Liawood.

Hunting gelding or mare of five, six, or seven years old.—First prize, £20, J. B. Booth, Killerby, Catterick; second of £10, E. Paddison.

Hunting gelding or mare five years old, pedigree taken into consideration.—First prize, £10, J. Benrose, Caythorpe, Grantham.

Gelding or mare, four years old, calculated to make a hunter.—First prize, £15, E. Paddison; second of £10, T. H. D. Bayly, Biggleswade. Highly commended: W. H. Clark, Hook. Commended: T. H. D. Bayly, T. Crots, jun., Melton Mowbray; and S. M. Wellitt.

Hunter, four years old or upwards, up to 14 stone.—Prize £10, S. J. Wellitt.

Hunter, four years old or upwards, up to carrying 12 but not up to 14 stone.—First prize, £10, W. Godson, Normanby-by-Stow. Commended: Lord Kesteven, Casewick.

Hunting gelding or filly, three years old, by a thoroughbred horse.—First prize, a whip value £5 and £20, R. G. F. Howard, Temple Bruer, Lincoln; second of £10, M. Wilson. Commended: Captain W. Singleton.

Hunting colt, two years old.—Prize, £5, F. Frudd, Dorrington. The class highly commended.

Hunting colt, two years old.—First prize, 10gs., F. Frudd, second of £5, R. Johnson, Westborough. The class highly commended.

Hunting colt, one year old.—First prize, £10, C. Clark, Ashby-de-la-Launde; second of £5, F. W. Alix, Willoughby Hall, Grantham. Commended: J. P. Oliver, Walcott, and G. Coates, Great Coates.

Hunting filly, two years old.—First prize, £10, J. T. Pawlett, Rippingale; second of £5, G. Hill, Edenham.

Hunting foal by a thoroughbred horse.—First prize, £20, W. H. Clark, Howden; second of £5, T. Wheatley, Ashfield House, Lincoln. Commended: G. Willows, Swallow, Caistor.

Foal by Nottingham.—A cup value £20, G. Willows.

Gelding or mare, the cleverest jumper.—First prize, £10, J. Greenham, Blankney; second of £5, F. Frudd.

Stallion for roadsters.—First prize, £10, B. Mitchell, Crowle Hall, Downham Market (Fireway); second of £5, T. Upton, West Walton, Wisbeck (Young Quicksilver). Highly commended: B. Balderston, Mount Pleasant, Boston (Norfolk Hero), and Rd. Milward, Thurgarton Priory, Southwell (Don Carlos).

Mare for breeding roadsters, with foal at foot, or having been served in the season of 1870.—First prize, £7, S. Gibson, Barton-on-Umber; second of £3, J. M. Phillips, Rowston.

The horse whose action in harness is best, special consideration being given to pace.—First prize, £10, Rev. W. S. White, Potterhanworth; second of £5, P. Hornsby, Grantham.

Weight-carrying cob, not exceeding eight years old, and not under 14½ hands nor above 15 hands in height.—First prize, £10, J. Hornsby, Grantham; second of £5, Wm. E. Chapman, Horbling, Fakingham.

Hackney not under 14 hands nor above 15.1 in height.—Prize, £5, J. Hornsby, Grantham.

Pony above 13 and not exceeding 14 hands in height.—First prize, 10gs., R. Milward; second of £5, J. Martin, Wainfleet, Boston.

Pony under 13 hands in height.—Prize, £5, J. Eaton, Farnfield, Southwell.

Stallion for draught horses.—First prize, £20, Wm. Welcher, Mouse Hall, Tofts, Brandon (Honest Tom); second of £10, I. Wilson, Saxilly, Lincoln (Young Champion). Commended: B. Balderston, Mount Pleasant, Sibsey, Boston (Wiltshire Champion).

Stallion for draught horses two years old.—Prize, £10, C. Sharpley, Kelstern, Louth (Le Bon).

Mare for breeding draught horses, with foal at foot, &c.—First prize, £10, R. Allett, Little Hale Fen, Sleaford; second of £5, A. Jackson, Bicker Bar, Spalding; third of £3, F. and W. Kingrose, Langford Moor, Newark. Commended: R. Allett.

Cart filly, three years old.—Prize, £5, C. Lister, Coleby Lodge, Lincoln. Commended: Robt. Wyles, Little Ponton, Grantham.

Cart filly, two years old.—Prize, £5, R. Hopper, North Bank, Whittlesey. Commended: J. Hubbard, Ewerby, Sleaford.

Cart filly, one year old.—Prize, £5, C. M. Ward, Washingborough, Lincoln.

Cart colt foal.—Prize, £3, — Birkitt, of West Ashby, Horncastle.

Cart filly foal.—Prize, £3, J. Chatterton, Hagworthingham, Spilsby.

Pair of draught horses, geldings or mares, under 8 years old.—Prize, 10gs., G. Woolhouse, Nocton Grange, Lincoln.

Team of either three or four horses suitable for agricultural purposes.—Prize, £15, Wm. Pilkington, Brauncwell, Sleaford; £3 to driver.

PIGS.

Boar of the large breed, not less than 12 months old.—First prize, £10, Str T. Whichcote, Bart., Aswarby Park, Sleaford; second of £5, Messrs. Duckering, Northorpe.

Boar of large breed, not exceeding 12 months old.—First prize, £5, Messrs. Duckering; second of £2, Messrs. Duckering.

Boar of the small breed, not less than 12 months old.—First prize, £10, G. P. Watson, Londonthorpe, Grantham; second of £5, Wm. Hatton, Addingham, Leeds.

Boar of the small breed, not exceeding 12 months old.—First prize, £5, W. Hatton; second of £2, J. Lynn, Stroton. Berkshire boar.—Prize, £5, Messrs. Duckering.

Sow of the large breed.—First prize, £5, to Messrs. Duckering; second of £3, W. Hatton.

Sow of the small breed.—First prize, £5, W. Hatton; second of £3, W. Hatton.

Berkshire sow.—Prize, £5, W. Richardson, Ashby Puerornm, Horncastle.

Three breeding pigs of the same litter, large breed, not exceeding 6 months old.—Prize, £5, Wm. Goose, Frampton, Boston.

Three pigs of the small breed.—Prize, £5, to G. P. Watson.

WOOL, SEEDS, AND ROOTS.

Three fleeces of hogg wool.—First prize, £3, R. Wright, Nocton Heath; second of £2, R. Wright.

Three fleeces of ewe or wether wool.—No entry.

Collection of seeds and roots.—Prize, £15, to James Carter and Co., Holborn, London.

IMPLEMENTS.

JUDGES.—J. Hicken, Dunchurch.

J. Coleman, Escrick.

Major Grantham, Spilsby.

The best stand of agricultural implements exhibited by a maker.—First prize, £10, Hornsby and Son, Grantham; second of £5, Ransomes, Sims, and Head, Ipswich.

The best stand of agricultural implements exhibited by an agent.—First prize, £10, Amies, Barford, and Co., Peterborough; second of £5, S. Williams, Sleaford.

R. Mason and Sons, Alford, £1 for sack lifting and weighing machine combined.

Hayes and Son, Stamford and Peterborough, £2 for carts.

George Cheavin, Boston, £1 for water filter.

Penney and Co., Lincoln, £1 for patent corn screen.

Vickers, Snowden, and Morris, £2 for double furrow plough, horsehoe, and drill.

William Barton, Bcston, £1 for cooking stove.

J. Williams, Sleaford, £1 10s. for milk preserving vessel and a churn.

J. Barlow, Kirkby Laythorpe, £1 for wood plough with bean mill.

Amies, Barford, and Co., Peterborough, £1 for horse rake, £2 for elevator, £2 for grinding mill and dressing machine, and 10s. for iron lamb hurdle.

T. Watson, Scopwick, £1 for gearing for four horses.

R. S. Baker, Lym, 10s. for horse rake.

J. Lingard, Caythorpe, 10s. for cart and waggon.

J. Cooke and Co., Lincoln, £2 for ploughs and waggon.

Isaac Spright, Brigg, £1 for horse hoe.

J. Conitas, Spittlegate, Grantham, £2 for drills and horse hoe.

William Ashton, Horncastle, £2 for drags, cultivators, and jacks.

Ashby, Jeffery, and Luke, Stamford, £1 for horse rake and chaff cutter.

R. Medley, North Raucedby, £1 for a cart.

W. and F. Walker, Lithby, near Bingham, Notts, £1 for two drills.

T. Allcock, Ratcliffe, Notts, £1 for chaff cutter.

William Watkinson, Louth, £1 for liquid manure drill, and £1 for brick and tile making machine.

W. R. Harris, Sleaford, £1 for waggons, and £1 for hay-maker.

T. Ashley, Louth, prize for steam cultivating tackle.

Hornsby and Sons, Grantham, £2 for turnip cutters, £2 for root pulpers, £2 for drills and ploughs, and £1 for knife grinding machine.

E. Tong, Lincoln, £2 for drills.

George Robinson, Sutterton, Fen, £1 for waggon.

William Ball, Rothwell, Kettering, £2 for waggon, £2 for cart, and £1 for ploughs.

THE DINNER

took place on the Thursday, Mr. W. E. Welby, M.P., in the chair.

The Hon. A. L. MELVILLE said: When at a *table d'hôte* in Paris, where one sits down next to the last comer, it happened that he got next to American, and as he always took the opportunity of talking to any one he sat near, whether at a dinner table or in a railway carriage, he fell into conversation with his neighbour, who told him he came from the United States, and after having gone through England and other countries, had at last got to Paris. He had seen a great deal, but he had not seen the thing he came to see, something he had been told of but could not believe, "that one man had put his money in another man's land." He (Mr. Melville) replied that the English tenant-farmers did that to their great interest, and he invited him to come and see his farm at Lincoln, when he would soon show him that such really was the case. His new friend came in about three weeks "to see one man put his money in another man's land." He took him to Mr. Doughty's, who was well-known, and who showed him his books and bills for £500, £800, or £1,200 paid by tenant-farmers. He was still not satisfied, however, and in going past Canwick they saw a man drilling on land occupied by a tenant-

farmer, Mr. Tong. It was Colonel Sibthorp's land, and the stranger was convinced, but was surprised to see Mr. Tong putting seed into Colonel Sibthorp's land. In America, he said, they put it into their own land; if they had got no land they bought some; and if they had no money to buy land they put their horses in the carts and went West, where they could get land at half-a-crown an acre, but they never put money in other men's land.

Lord KESTEVEN said he was at the Oxford show the whole of the week, but there he did not see anything like the display in one department. They had not half so good horses as they had here, and they did not ride them half so well. Thus Lincolnshire was proud both of its horses and riders. In another field also they had a competition as to who should be first in hunting. At the Oxford meeting a prize was given for the best cultivated farm; there were 21 competitors, and the prize was won by a lady, a native of Lincolnshire.

The CHAIRMAN said those who have managed this show have kept one object in view, namely, the promotion of the science of agriculture and the welfare of all classes connected with it. With that view we, almost alone of all such societies, allot funds to honest and intelligent labour, and also devote a portion of our income to giving to masters the benefit of chemical analysis, the same as is done at the Royal and other similar societies. With the same object in view, we not only attempt to make the show as attractive as we can, but as far as possible to carry its operations into every corner of the county. I would add that we must bear in mind that we have not to-day—as we had last year—met in a large centre of the county like the city of Lincoln. I believe, as far as the excellence of the show is concerned, we can challenge comparison with last year; but I confess my misgivings, notwithstanding the manner in which this tent is filled and the company present to-day, as to whether, in a financial point of view, the funds of the Society will not be severely trencned on. I say this because I wish it to be understood that the Society cannot be kept up without the cordial support of the whole county. Next year the meeting will be held at Brigg—I have reason to hope it will be as successful as this year; the year after it remains to be decided where the meeting shall be held.

Mr. CHARLES BRAMLEY said Mr. Melville had remarked that the tenant farmers put their money in the land, but why did they do it? because they were encouraged by the landlord. If that was not the case, he did not believe there was a tenant farmer in Lincolnshire who would put his hand so readily in his pocket.

Mr. TORR said labour was the true source of wealth, as without good labourers the efforts of the farmer were nullified, and that without good labourers and a good landlord he would advise no one to be a farmer. Believing as he did that all present appreciated the value of good labourers, he felt sure that with good landlords and good labourers no leases were required. At this meeting there had been seen one of the finest exhibitions of steam engines ever brought together. These were economizers of labour; they were intended to husband, not to supplant labour, and he believed that no Lincolnshire labourers would think of injuring reaping or mowing machinery. He believed the summer management of sheep in a large portion of Oxfordshire was far superior to that of Lincolnshire.

HIGHLAND AND AGRICULTURAL SOCIETY OF SCOTLAND.

MEETING AT DUMFRIES.

The judges of stock commenced their duties on Tuesday. The entries are Galloways, 64; Polled Angus, 46; Shorthorns, 61; Ayrshire, 154; Highland, 20; fat stock, &c., 29—in all, 374. Horses for agricultural purposes, 120; extra sections, 51—in all, 171. Sheep: Cheviots, 91; blackfaced, 59; Border Leicester, 69; Leicester, 17; Long-wooled, 19; Southdowns, 12; Short-wooled, 40; extra, 15—in all, 322. Pigs, 39; poultry, 134; dairy produce, 130; implements, 1,875.

The total number of entries is the third highest ever witnessed under the auspices of the Society—the two highest being in Edinburgh last year, and Glasgow in 1859.

The exhibition of Galloways, as it invariably is in the south of Scotland, was large and good. After long deliberation on the part of the judges, Squire Dacre, shown from Knells, Carlisle, and bred by Mr. Graham, Parcelstown, was set aside to head the list. To be only

three years old this is really a rare bull. He carried off, besides numerous local premiums, the first at Aberdeen Highland Society's show in 1868, and the second at Edinburgh last year. He has splendid long quarters, with good back and rib, and shows great weight for his age. The second, bred by the late Mr. Graham, Braidlee, is only three years old, but he had little chance with the one placed before him. While the Galloway bulls were decidedly a good show, the cows and heifers were even more numerous, and, if possible, of finer quality. Besides three champion cows of previous shows entered for gold medals, there were fifteen cows staled, the majority of them good animals. This class occupied the judges a long time. The place of honour was latterly given to a three-year-old cow shown by Mr. Cunningham, and also bred by Mr. Graham, Parcelstown. She was second as a two-year-old heifer at Edinburgh last year, and has reached the top of the tree, so to speak, very early. In addition to having even quarters, so characteristic of the breed, Theresa II presents a sweetness and feminine appearance generally which the judges could not get over. The second is seven years old, and was bred at Brandledys, Dumfries. She is, of course, fully heavier than the young cow by which she was beaten, but is not so fine.

The entries of Polled Angus have been more numerous at former exhibitions of the Society; but notwithstanding the entire absence of Tillyfour cattle, the quality has never been surpassed, if indeed it ever has been equalled. To award the premiums in the aged-bull class took the judges nearly three-quarters of an hour, so close and keen was the competition. The choice of the judges ultimately fell on Palmerston, four years old, shown and bred by Mr. Walker, Portlethen, Aberdeen. He is very evenly fleshed, large, and well fed, with good points—beautiful head, shoulder, and neck. He took the third prize as a two-year-old at the Highland Society's show at Aberdeen, as also the first and silver medal at Stonehaven last year. The famous three-year-old bull March, from Westertown, Fochabers, Morayshire, bred by Mr. Brown, ran so close for the palm that many people looking on thought he would have once more come in the victor. When this fine bull first came before the public at Aberdeen in 1868, he obtained the highest honours the Highland Society could then bestow, and golden opinions were early formed as to his future career. Previous anticipations were fully realized when he beat all comers at Manchester last year. From some mysterious cause, however, though he came direct to Edinburgh last year, under the highest honours obtainable from the Royal Society of England show, the Highland Society judges of 1869 left him out in the cold. This year March was in the eyes of the judges and many others within a hair's breadth of shutting the door in his face for future competition at the National Society's exhibitions, by taking the chief prize from the aged bulls, of which he is one of the youngest. Sir George Macpherson Grant has the honour of breeding the two foremost bulls among the two-year-olds.

As was to have been expected from the locality, the show of Shorthorns was somewhat under what it is at the Society's exhibitions held where this popular breed predominates to a greater extent than it does in Dumfries and neighbouring counties. These remarks, however, apply more to numbers than to the quality of the animals entered. The judging of the six classes of this breed occupied about four hours—a fact which speaks loudly for the quality and equality of the various lots. The oldest bull in the yard was assigned the first prize among the aged bulls. He is over seven years, and is well known in the principal showyards in England, his more recent honours in which were the second prize at Oxford

last week, and a similar place at Manchester in 1869. This is Edgar. It was early evident that the three-year-old bull Baronet, from Burnside, Fochabers, bred by the Duke of Buccleuch, after Royal Errant, was to come close on the old bull. Many people did not hesitate to give it as their decided opinion that Baronet should have been first, and thus repeat his success of last year at Edinburgh, Aberdeen, Banff, Huntly, and Elgin. A good deal of surprise was occasioned by the defeat of the three-year-old white bull from Litch Haddo, Aberdeenshire, with which Dr. William Cochran carried the challenge cup at Aberdeen last week, and that was expected by many good judges to go far up in the list at Dumfries. Coming to the two-year-olds, we meet the observed of all observers in the now renowned bull Scotsman, from Newton of Struthers, Morayshire, which attracted so much notice at Oxford. Yearling bulls are not good as a class, though there are a few good beasts. The first prize animal is from the herd of Mr. Torr, Lincolnshire. He has in every sense of the term an ugly head, and he is not so broad and full behind as could be desired in a first prize beast. Good blood, however, is evident in his veins, while he is beautifully skinned and true round the heart, rib, back, and shoulder. The second bull is more massive, and was by not a few thought the more deserving animal of the two. He was bred by Mr. Lamb, Cumberland, and had for grandsire the first prize bull Edgar. Last year there were only four cows of the Shorthorn breed exhibited, and this year there are four times as many. The first prize cow is four years old, and was bred by Mr. Torr, Lincolnshire. She carried the first prize as a two-year-old at Lincoln, and has a good level back and loin, but is rather inclined to patchiness at the rump. The second was bred by Mr. Lawson, Darlington, and handles quite as well as the first. The third was third last year at the Highland Society's show. The first prize two-year-old heifer was bred by the exhibitor, Mr. Scott, Manben, Elgin, and carried the first prize as a calf at the Aberdeen show of this Society in 1868, and the third as a yearling last year. She shows her points to fine advantage, as does also the second, which was bred at Keavil, and got second honours last year, beating then the first of to-day. Both are light roans, and handle almost alike indifferently; otherwise they are good; but their skins are very thick, especially that of the second. The third was bred and shown by the Duke of Buccleuch.

Seldom has there been seen a finer show of Ayrshire stock, and the judges had great difficulty in arriving at conclusions in almost every one of the classes. Indeed, it was confessed by all the judges that they had never seen such a remarkably good lot of young Ayrshires. Of the forty who were brought out into the ring, that shown by Mr. James Brown, Cartleburn, Kilwinning, was judged most worthy of the first prize. Topsy was first at Ayr in her class, and received the premium as the largest and best quey in the yard. She has a wide forehead, mellow eye, fashionable horn, good rib, and is broad across the torr bones. A brown heifer shown by Mr. J. Carruthers, Lockerbie, was placed second. She is a magnificent animal all over the fore-end, but rather deficient behind. The yearling heifers were also very good as a class, and the first prize one, belonging to Mr. A. M'Dowall, Stranraer, is a beautiful specimen, with a nice pile of hair.

The shaggy Highland breed is not so largely represented as if the exhibition had been farther to the north-west. The display of cattle under the head of crosses and extra stock is rarely of much merit at the Highland Society, and this year proves no exception. In fact, there is little inducement to show in these classes, only a few medals being offered for prizes.

The horses for agricultural purposes are undoubtedly a very fine show; and in the distribution of the awards there was more than one surprise. Principal Williams, Edinburgh, accompanied the judges, and made a careful examination of all the competing horses, in order to decide whether they were sound or not before the awards were given.

There has seldom been a more magnificent display of Cheviots. Among more than forty entries we find Mr. Brydon, Moffat, once more at the top of the list for aged tups. He got three of the four tickets in this class, and deservedly, for animals bred by himself. As Mr. Brydon among Cheviots, so Mr. Archibald, Overshiel, Stow, among Blackfaced, is invincible. Mr. Archibald has for several years carried everything before him for blackfaced sheep at these shows, and this year he has repeated his former victories with animals of a high order of his own breeding. They are well woolled, bare-faced and bare-legged, with beautifully turned horns, and square bodies—all well-known characteristics of this hardy breed. Border Leicesters are a fair show, especially the shearing tups, which were mostly bred by the exhibitors. Leicesters are not nearly such a good show as they sometimes are under the auspices of the Highland Society. The first prize shearing tup was bred by Mr. Anslie, Costerton, and Mr. Lyal's sheep were reared by himself from stock he has had for some time. Mr. Gibson's long wools, bred by himself, are heavy, and much admired. Southdowns are not very numerous. The Altyre ones were home-bred, and Mr. Gordon's were also bred by the exhibitor. These gained several prizes at Aberdeen last week. Mr. Scot Skirving won with good ewes of his own breeding. The other classes of sheep were about an average show.

If there was overfeeding in the showyard, it was, as it often is, visible among pigs. Messrs. Ducker- ing's were most successful, and the large boar was a winner at Oxford.

JUDGES.

CATTLE.—Galloway: James Grierson, Brandelleys, Crockettford; Allan C. Pagan, Innergeldie, Comrie. Polled Angus: Robert Hector, Montrose; Alex. Paterson, Mulben, Keith. Shorthorn: L. C. Crisp, Hawkhill, Alwihk; Robert Hardie, Harrietfield, Kelso; John Unthank, Netherseales, Penrith. Ayrshire: Robert Guthrie, Crossburn, Troon; John Macadam, Blairover, Drymen; J. Waugh, St. John's Kirk, Biggar. Highland: Donald McIntyre, Tighnablair, Comrie; John Macfarlane, Faslane, Hlensburgh; Peter Robertson, Achilty, Dingwall. Fat stock: Alex. Young, Keir Mains, Dunblane; Mr. Hugh Muirhead, butcher, Dumfries.

HORSES.—Draught horses: James Cumbrough, Blairtunnock, Campsie; Robert Jack, North Gyle, Corstorphine; Alex. Wyllie, Bolton, Haddington. Veterinary inspector: Professor Williams, Edinburgh. Extra horses: John Curror, Comiston, Edinburgh; John Anstruther Thomson, of Charlton, Colinsburgh. Veterinary inspector: Robert Paterson, V.S., Dumfries.

SHEEP.—Cheviots: William Aitchison, Linhope, Hawick; Robert Paterson, Bighouse, Tyndrum; William Thompson, Belvalle, Coldstream. Blackfaced: David Foyer, Knowhead, Campsie; Donald McIntyre, Tighnablair, Comrie; Donald Stewart, Achalader, Tyndrum. Leicesters and Long-Woolled: Joseph Bell, Scalehill, Lazonybury, Penrith; Thomas Ferguson, Kinnochtry, Coupar-Angus; John Wilson, Edington Mains, Chrinside. Southdown and Short-Woolled: William Borthwick, Whitehaven Castle, Whitehaven; John H. Buckley, The Cottage, Loughborough.

SWINE.—Thomas D. Findlay, Easterhill, Glasgow; John McLaren, Millhill, Inchture.

POULTRY.—Thomas Raines, Bridgehaugh, Stirling; David Stratton, Edinburgh.

DAIRY PRODUCE.—R. A. Dickson, Dumfries; James Fulton, 47, Argyle-street, Glasgow; T. Gibson, Princes-street, Edinburgh.

IMPLEMENTS.—Professor Macquorn Rankine, honorary consulting engineer to the Society; John Gibson, Woolmet, chairman of the Society's Machinery Committee; Alex. Slight, Edinburgh, practical engineer to the Society; Professor Wilson, Edinburgh; Thomas Mlyn, Niddrie Mains, Liberton; John Munro, Fairnington, Kelso; Adam Curror, The Lec, Edinburgh; Robert Binnie, Seton Mains, Longniddry; William Ford, Hardengreen, Dalkeith; John Ord, of Muirhouseclaw, Nisbet, Kelso.

PRIZE LIST.

CATTLE.

GALLOWAYS.

Bulls calved before 1st January, 1868.—First prize, J. Fisher, Knells, Carlisle; second, Sir F. Ulric Graham, Bart., Longtown; third, J. Graham, Parcelstown, Westlinton, Carlisle; commended, J. Cunningham, Tarbreoch, Dalbeattie.

Bulls calved after 1st January, 1868.—First prize, J. Thomson, Blaikett, Crockettford, Dumfries; second, P. Morton, Laws Hall, Longtown; third, R. Jardine, Balgray, Lockerbie.

Bulls calved after 1st January, 1869.—First prize, T. Biggar, Chapelton, Dalbeattie; second and third, W. Kair, of Whitehaugh, New Castleton; commended, J. Cunningham, Tarbreoch, Dalbeattie.

Cows of any age.—First prize, J. Cunningham, Tarbreoch, Dalbeattie; second, W. and J. Shennan, Balg, Kirkcubright; third, J. Gifford, Torhousekie, Newton-Stewart; commended, T. Biggar, Chapelton, Dalbeattie.

Heifers calved after 1st January, 1868.—First, second, and third prizes, the Duke of Buccleuch and Queensberry, K.G., Tibbers, Thornhill.

Heifers calved after 1st January, 1869.—First prize, T. Biggar, Chapelton, Dalbeattie; second, J. Cunningham, Tarbreoch, Dalbeattie; third, R. Wallace, Langbarns, Kirkcubright.

POLLED ANGUS OR ABERDEEN.

Bulls calved before 1st January, 1869.—First prize, R. Walker, Portlithen, Aberdeen; second, G. Brown, Westerton, Fochabers; third, W. J. Tayler, Rothiemay House Huntly; commended, J. Scott, East Tulloch, Stonehaven.

Bulls calved after 1st January, 1868.—First prize, Sir G. Macpherson Grant of Ballindalloch, Bart., Ballindalloch; second, Colonel C. Fraser, of Castle Fraser, Aberdeen; third, W. D. Fordyce of Brucklay, M.P., Aberdeen; commended, J. Scott, East Tulloch, Stonehaven.

Bulls calved after 1st January, 1869.—First prize, G. Brown, Westerton, Fochabers; second, Col. C. Fraser of Castle Fraser; third, J. Scott, East Tulloch, Stonehaven; commended, T. Ferguson, Kinnochtry, Coupar-Angus.

Cows of any age.—First prize, Colonel C. Fraser of Castle Fraser, Aberdeen; second, Sir G. Macpherson Grant of Ballindalloch, Bart., Ballindalloch; third, J. Skinner, Drummin, Ballindalloch; commended, W. M'Combie of Easter Skene, Skene, Aberdeen.

Heifers calved after 1st January, 1868.—First prize, Sir G. Macpherson Grant of Ballindalloch, Bart., Ballindalloch; second and third, Colonel C. Fraser of Castle Fraser, Aberdeen; commended, Sir G. Macpherson Grant of Ballindalloch, Bart.

Heifers calved after 1st January, 1869.—First and third prizes, J. Skinner, Drummin, Ballindalloch; second, G. Brown, Westerton, Fochabers; commended, the Earl of Dunmore, Dunmore, Stirling.

SHORTHORNS.

Bulls calved before 1st January, 1868.—First prize, C. R. Saunders, Nunwick Hall, Penrith; second, J. Bruce, Burnside, Fochabers; third, Sir T. Buchan Hepburn of Smeaton, Bart., Prestonkirk; commended, T. Marshall, Howes, Annan.

Bulls calved after 1st January, 1868.—First prize, R. Bruce, Newton of Struthers, Forres; second, R. Binnie, Seton Mains, Longniddry; third, J. Beattie, Newbie House, Annan.

Bulls calved after 1st January, 1869.—First prize, J. Beattie, Newbie House, Annan; second, J. Bell, Fans, Earlston; third, Sir David Baird of Newbyth, Bart., Prestoukirk; commended, J. Johnstone, Halleaths, Lochmaben.

Cows of any age.—First prize, J. Beattie, Newbie House, Annan; second, J. Currie, Halkerston, Gorebridge; third, W. Lambert, Elvington Hall, Haydon Bridge; commended, S. Campbell, Kineller, Blackburn, Aberdeen.

Heifers calved after 1st January, 1868.—First prize, R. Scott, Maubeen, Elgin; second, J. Beattie, Newbie House, Annan; third, the Duke of Buccleuch and Queensberry, K.G., Dalkeith Park, Dalkeith.

Heifers calved after 1st January, 1869.—First prize, Lord Kinnaird, Rossie Priory, Inchture; second, J. Wilson, Woodhorn Manor, Morpeth; third and commended, J. Beattie, Newbie House, Annan.

AYRSHIRE.

Bulls calved before 1st January, 1868.—First prize, R. Wilson, Forehouse, Kilbarhan; second, W. Macadam, Kerpulloch, Balfron; third, J. Meikle, Seafield, Bathgate.

Bulls calved after 1st January, 1868.—First prize, T. Ballantyne, Netherton, East Kilbride; second, J. Fleming, Meadowbank Cottage, Strathaven; third, J. Parker, Broomlands, Irvine; commended, J. Hewetson, Achenbainzie, Thornhill.

Bulls calved after 1st January, 1869.—First prize, J. Meikle, Seafield, Bathgate; second, J. Parker, Broomlands, Irvine; third, D. C. Willison, Whitecleugh, Douglas; commended, G. Dunlop, Castle Farm, Stewarton.

Cows in-milk, calved before 1st January, 1867.—First prize, R. Wilson, Forehouse, Kilbarhan; second, J. Moffat, sen. and jun., Gateside, Kirkconnel; third and commended, J. Fleming, Meadowbank Cottage, Strathaven.

Cows in-milk, calved after 1st January, 1867.—First prize, J. Fleming, Meadowbank Cottage, Strathaven; second, R. Wilson, Forehouse, Kilbarhan; third, J. Mitchell, Lochingarroch, New Cunnock; commended, J. Meikle, Seafield, Bathgate.

Cows in-calf, of any age.—First prize, J. Fleming, Meadowbank Cottage, Strathaven; second, G. Dunlop, Castle Farm, Stewarton; third, R. Wilson, Forehouse, Kilbarhan; commended, R. M'Kean, Lumloch, Bishopbriggs.

Heifers calved after 1st January, 1868.—First prize, J. Brown, Cartleburn, Kilwinning; second, J. Carruthers, Heithal, Lockerbie; third, J. Fleming, Meadowbank Cottage, Strathaven; commended, A. Kerr, Castle Hill, Durrisdeer.

Heifers calved after 1st January, 1869.—First prize, A. M'Dowall, Auchtrahue, Stranraer; second, J. Meikle, Seafield, Bathgate; third, G. Dunlop, Castle Farm, Stewarton; commended, J. Fleming, Meadowbank Cottage, Strathaven.

HIGHLAND.

Bulls calved before 1st January, 1868.—D. M'Laren, Corrychrone, Callander; second, J. Stewart, Duntulm, Portree; third, J. M'Kechnie, jun., Glenmore, Oban; commended, J. Stewart, Duntulm, Portree.

Cows of any age.—First prize, the Earl of Seafield, Castle Grant, Grantown.

Heifers calved after 1st January, 1867.—First prize, J. Malcolm, Poltalloch, Callton Mor, Lochgilphead; second and third, J. Stewart, Duntulm, Portree; commended, J. Malcolm, of Poltalloch, Callton Mor, Lochgilphead.

Heifers calved after 1st January, 1868.—First and second prizes, J. Malcolm; third, the Earl Seafield, Castle Grant, Grantown; commended, J. Malcolm.

FAT STOCK.

Galloway oxen, calved after 1st January, 1867.—First prize, R. Jardine, of Castlemilk, M.P., Lockerbie; second, J. Routledge, Old Mill, Portwilliam, Wigtownshire; third, R. Jardine; commended, J. Millar, of Priestlands, Troqueer, Dumfries.

Galloway oxen, calved after 1st January, 1868.—First, second, third, and commended, T. Biggar, Chapelton, Dalbeattie.

Highland oxen calved after 1st January, 1866.—First and second prizes, J. Dalgleish, of Ardnamurchan, West Grange, Culross; third, G. Henderson, Garroch, Dumfries; commended, G. Henderson.

Highland oxen calved after 1st January, 1867.—First and second prizes, J. and W. Martin, Newmarket, Aberdeen.

Oxen of any other pure or cross breed calved after 1st January, 1867.—First prize, the Earl of Dunmore, Stirling; second, the Duke of Buccleuch and Queensberry, K.G., Tibbers, Thornhill.

Oxen of any other pure or cross breed calved after the 1st January, 1868.—First prize, R. Bruce, Newton of Struthers, Forres; second and third, J. Birkett, Broom Rigg, Ainstable, Penrith.

Galloway heifers calved after 1st January, 1867.—Prize, The Duke of Buccleuch and Queensberry, K.G., Tibbers, Thornhill.

Heifers of any other pure or cross breed calved after 1st January, 1867.—Prize, J. Brown, Cassielauds, Dumfries.

EXTRA CATTLE.

Galloway.—Commended, P. Dudgeon, Cargen, Dumfries. Alderney.—Commended, W. Ritchie, of Middleton, Gorebridge; Miss Hope Johnstone, of Annandale, Marchbank Wood, Moffat.

HORSES.

FOR AGRICULTURAL PURPOSES.

Stallions foaled before 1st January 1867.—First prize, Peter Crawford, Dumgoyack, Strathblane; second, David Riddell, Kilbowie, Dumtocher; third, William Moffat, Shirva, Kirkin-tulloch; commended, John Macdonald, Porterfield, Renfrew.

Entire colts foaled after 1st January, 1867.—First prize, Peter M'Robie, Sunnyside, Aberdeen; second, Sir William G. Gordon Cumming, of Alyre, Bart., Forres; third, Robert Brewster, Barnbeth, Bridge of Weir; commended, Samuel Clark, Manswrae, Kilbarhan.

Entire colts foaled after 1st January, 1868.—First prize, Robert M'Kean, Lumloch, Bishopbriggs; second, Archibald Yuill, 33, Cathedral Street, Glasgow; third, Samuel Clark, Manswrae, Kilbarhan; commended, Lawrence Drew, Merryton, Hamilton.

Entire colts foaled after 1st January, 1869.—First prize, David Riddell, Kilbowie, Dumtocher; second, John Robertson, West Mitchellton, Lochwinnoch; third, Robert Frederick, Drumflower, Glenluce; commended, James Nicol Fleming, of Knockdon, Maybole.

Mares (with foal at foot) foaled before 1st January, 1867.—First prize, Adam Smith, Stevenson Mains, Haddington; second, Thomas Marshall, Howes, Annan; commended, John Mitchell, Poundland, Dunscore.

Mares in foal, foaled before 1st January, 1867.—First prize, Sir William Stirling-Maxwell, of Keir, Bart., Dumblane; second, John Graham, Rosebank, Mid-Calder; third, Abram Kerr, Castlehill, Durrisdeer; commended, James Young, Niddrie, Winchburgh.

Fillies foaled after 1st January, 1867.—First prize, Robert M'Kean, Lumloch, Bishopbriggs; second, A. Buchanan, Garscadden Mains, New Kilpatrick; third, J. N. Fleming, of Knockdon, Maybole; commended, Lawrence Drew, Merryton, Hamilton.

Mares or geldings foaled before 1st January, 1865, suitable for field.—Prize, Michael Teenan, Lochside, Dumfries.

Mares or geldings foaled between 1st January, 1865, and 1st January, 1866, suitable for field.—First prize, James Gillespie, Craigie, Cramond; second, John J. M. Borthwick, Georgefield, Langholm; third, William Dickie, Balgerran Castle-Douglas.

Mares or geldings foaled before 1st January, 1866, suitable for carriage.—Prize, John Rithet, Pennersanghs, Ecclefechan.

Mares or geldings between 12 and 14 hands high.—First prize, Robert Scot Skirving, Camptoun, Drem; second, James Hewetson, Auchenbainzie, Thornhill; third, William Davidson, Sibbaldie Mills, Lockesbie; commended, John Smith, Bonshawsie, Ecclefechan.

Mares or geldings, 12 hands and under.—First prize, Patrick Dudgeon, of Cargen, Dumfries; second, Thomas Coultts Trotter, Champleurie, Linlithgow; third, Miss Scot Skirving, Camptoun; commended, William Ritchie, of Middleton, Gorebridge.

EXTRA HORSES.

Carriage or saddle.—Commended, William Francis Hunter Arundell, of Barjarg Tower, Dumfries; Major Fletcher, Keltoun House, Dumfries; John Richardson, Dryfesdale Gate, Lockerbie; Robert Wallace, Langbarns, Kirkcudbright.

Clydesdale.—Commended, David Kennedy, Newlands, Dumfries.

Fillies foaled after 1st January, 1868.—First prize, J. N. Fleming, of Knockdon, Maybole; second, Lawrence Drew, Merryton, Hamilton; third, Abram Kerr, Castlehill, Durrisdeer; commended, Robert C. M'Culloch, Kirkland of Longcastle, Kirkiner.

Fillies foaled after 1st January, 1869.—First prize, J. N. Fleming, of Knockdon, Maybole; second, Alexander H. M'Clean, Auchnel, Stranraer; third and commended, William and James Sheenan, Balig, Kirkcudbright.

EXTRA SECTIONS.

Draught geldings foaled before 1st January, 1866.—First prize, Archibald Johnston, Lochburn, Maryhill; second and third, the Duke of Buccleuch and Queensberry, K.G., Tibbers, Thornhill; commended, Thomas Gibbons, Burnfoot-on-Esk, Longtown.

Draught geldings foaled between 1st January, 1866, and 1st January, 1867.—Prize, The Duke of Buccleuch and Queensberry, K.G., Holestane, Thornhill.

Mares or geldings foaled before 1st January, 1865, suitable for field.—Prize, Michael Teenan, Lochside, Dumfries.

S H E E P.

CHEVIOT.

Tups above one shear.—First and second prizes, J. Brydon, Kinnelhead, Moffat; third, T. Elliot, Hindhope, Jedburgh; commended, J. Brydon, jun., Holm of Dalquhairn, New Galway.

Dimont or shearing tups.—First prize, J. Brydon, Kinnelhead, Moffat; second and third, T. Elliot, Hindhope, Jedburgh; commended, G. McCall, Burance, Lockerbie.

Ewes above one shear, with lambs.—First prize, J. Brydon, Kinnelhead, Moffat; second, T. Welsh, Ericstane, Moffat; third, T. Elliot, Hindhope, Jedburgh; commended, J. Archibald, Glengelt, Lauder.

Best lambs.—First prize, J. Archibald; second, J. Brydon. Shearing ewes or gimmers.—First prize, T. Elliot, Hindhope, Jedburgh; second, J. Brydon, Kinnelhead, Moffat; third, Sir G. G. Montgomery, Bart., M.P., Stobo Castle, Stobo; commended, T. C. Borthwick, Hoprig, Langholm.

BLACKFACED.

Tups above one shear.—First and second prizes, J. Archibald, Overshiels, Stow; third and commended, C. Howatson of Dornel, Daldorch House, Mauchline.

Dimont or shearing tups.—First and second prizes, J. Archibald, Overshiels, Stow; third, J. Moffat, senior and junior, Gateside, Kirkconnel, Saquhar; commended, C. Howatson of Dornel, Daldorch House, Mauchline.

Ewes above one shear, with lambs.—First prize, J. Archibald, Overshiels, Stow; second, J. Moffat, senior and junior, Gateside, Kirkconnel, Saquhar; third, J. Malcolm, Poltalloch, Callton Mor, Lochgiphead; commended, C. Howatson of Dornel, Daldorch House, Mauchline.

Lambs.—First prize, J. Archibald; second, J. Moffat.

BORDER LEICESTER.

Tups above one shear.—First prize, J. Lees, Marvingston, Haddington; second, J. Nisbet, Lambden, Greenlaw; third, W. Lambert, Elvington Hall, Haydon Bridge; commended, the Representatives of the late T. Watson, Esperston, Gorebridge.

Dimont or shearing tups.—First prize, G. Torrance, Sisterpath, Dunse; second, T. Simson, Blainsie, Lauder; third, J. Lees, Marvingston, Haddington; commended, J. Nisbet, Lambden, Greenlaw, Dunse.

Ewes above one shear.—First prize, G. Simson, Courthill, Kelso; second, J. and G. Laing, Wark, Coldstream; third, A. Smith, Castlemains, Gifford; commended, L. Drew, Merryton, Hamilton.

Shearing ewes or gimmers.—First prize, G. Torrance, Sisterpath, Dunse; second, G. Simson, Courthill, Kelso; third, J. Lees, Marvingston, Haddington; commended, The Marquis of Tweeddale, K.T., Yester, Haddington.

LEICESTER.

Tups above one shear.—First prize, T. Wilkin, Tinwald Downs, Dumfries; second, J. Mackenzie, Barnhill, Dumfries; third, C. Lyall, Old Montrose, Montrose; commended, J. Mackenzie, Barnhill, Dumfries.

Dimont or shearing tups.—First prize, A. Smith, Castlemains, Gifford; second, R. Jefferson, Preston Hows, Whitehaven; third, the Representatives of the late T. Watson, Esperston, Gorebridge; commended, R. Jefferson, Preston Hows, Whitehaven.

Ewes above one shear.—R. Jefferson, Preston Hows, Whitehaven.

Shearing ewes or gimmers.—First prize, R. Jefferson, Preston Hows, Whitehaven; second, C. Lyall, Old Montrose, Montrose.

LONG WOOLLED OTHER THAN LEICESTER.

Tups of any age.—First prize, T. Wilkin, Tinwald Downs,

Dumfries; second and third, J. Gibson, Woolmet, Dalkeith; commended, J. Gibson, Woolmet, Dalkeith.

Ewes of any age, or gimmers.—First prize, J. Gibson, Woolmet, Dalkeith; second, W. Normau, Hall Bank, Aspatia; third, J. B. Irving, Whitehill, Lockerbie.

SOUTHDOWN.

Tups of any age.—First and second prizes, Sir W. G. Gordon Cumming of Altyre, Bart., Forres; third and commended, J. Gordon, Parkhill, Aberdeen.

Ewes of any age, or gimmers.—First prize and commended, J. Gordon, Parkhill, Aberdeen; second and third, R. S. Skirving, Camptoun, Drem.

SHORT-WOOLLED OTHER THAN SOUTHDOWN.

Tups of any age.—First and second prizes, J. Gibson, Woolmet, Dalkeith; third and commended, The Earl of Strathmoore, Glamis Castle, Glamis.

Ewes of any age, or gimmers.—First and second prizes, The Earl of Strathmoore, Glamis Castle, Glamis; third and commended, J. Gibson, Woolmet, Dalkeith.

EXTRA SECTIONS.

Cheviot shearing wethers.—First prize, R. Jardine of Castlemilk, M.P., Lockerbie; second, T. Biggar, Chapelton, Dalbeattie; third, R. D. Barre Cuninghame of Hensol, Castle Douglas; commended, J. McGill, Rotchell, Dumfries.

Blackfaced wethers of any age.—First prize, The Earl of Strathmoore, Glamis Castle, Glamis; second, Sir W. Forbes, Bart., Craigeivar, Fintray House, Aberdeen; commended, G. Hewetson, Auchinleck, Newton-Stewart.

Half-bred hogs.—First prize, T. Biggar, Chapelton, Dalbeattie; second and third, R. Jardine of Castlemilk, M.P., Lockerbie.

EXTRA SHEEP.

Cheviot.—Commended, R. D. Barre Cuninghame of Hensol, Castle Douglas.

Blackfaced.—Commended, Miss Hope Johnstone of Annandale, Marchbank Wood, Moffat.

Cotswold.—Commended, J. Gibson, Woolmet, Dalkeith.

Shropshire.—Commended, The Earl of Strathmoore, Glamis Castle, Glamis.

Lincoln.—Commended, J. B. Irving of Whitehill, Lockerbie.

Cross-bred hogs.—First and third prizes, R. Jardine of Castlemilk, M.P., Lockerbie; second, J. McGill, Rotchell, Dumfries; commended, T. Biggar, Chapelton, Dalbeattie.

PIGS.

Boars, large breed.—First prize, R. E. Duckering and Sons, Northorpe, Kirton Lindsey; second, G. Mangles, Great Givendale, Ripon.

Boars, small breed.—First prize, G. Mangles; second, Sir W. Forbes of Craigeivar, Bart., Fintray House, Aberdeen; third, G. Mangles; commended, R. E. Duckering and Sons.

Sows, large breed.—Prize, R. E. Duckering and Sons.

Sows, small breed.—First prize, R. E. Duckering and Sons; second, G. Mangles; third, T. Wilkin, Tiwald Downs, Dumfries; commended, R. Philp, Royal Hotel, Bridge of Allan.

Pens of three pigs not exceeding eight months old, large breed.—First prize, R. E. Duckering and Sons; second, G. Mangles; third, N. Milne, Dryhope, Selkirk; commended, N. Milne.

Pens of three pigs not exceeding eight months old, small breed.—First prize, R. E. Duckering and Sons; second, G. Mangles; third, J. B. Story, jun., Milnhead, Dumfries; commended, R. Philp.

Extra pigs.—Commended, R. E. Duckering and Sons.

DAIRY PRODUCE.

Cured butter.—First prize, D. McFarlane, Balmuldy, Bishopbriggs; second, D. McLaren, Middleton, Strathblane, Milngavie; third, A. Lithgow, Drumtall, East Kilbride; commended, J. Wilson, Cntlins, Lockerbie.

Powdered Butter.—First prize, A. Lithgow; second, D. McLaren; third, D. McFarlane; commended, J. Wilson.

Fresh butter.—First prize, D. McLaren; second, J. Wilson; third, A. Lithgow; commended, the Duke of Buccleuch and Queensberry, K.G., Holestane, Thornhill.

Sweet milk cheese, Cheddar variety.—First prize, D. Frederick, High Ardwell, Dumbreldon, Stranraer; second, J. Cowper, Mid-Kelton, Castle Douglas; third, J. McClue, Enoch, Dinvin, Portpatrick; commended, A. McGuffie, Barhill, Stonekirk, Stranraer.

IMPLEMENTS.

SILVER MEDALS.—T. Corbett, Shrewsbury, for collection of farm implements; F. Morton and Co. (Limited), Liverpool, for collection of fencing; J. G. Rollins, London, for collection of pumps, hay-racks, &c.; Thornton, Currie, and Co., Edinburgh, for collection of articles of rubber manufacture; Waverley Manufacturing Company, Dalkeith, for sewing-machines; L. R. Mactaggart, Edinburgh, for horse-rake and mowers and reapers; J. Pringle, Edinburgh, Berwick, and Kelso, for collection of farm implements; Richmond and Chandler, Salford, Manchester, for collection of chaff-cutters; A. Boyd, Knockhardy, Ruthwell, Annan, for broadcast sowing-machine, and combined drill for sowing turnips; Brigham and Bickerton, Berwick-on-Tweed, for collection of reaping-machines; Carnthers and Allan, Dumfries, for portable sheep-dipping apparatus; J. Drummond, Cumnock, for collection of thrashing-machines, cheese presses, and card mills; G. Finlayson, Abroath, for sowing and reaping machines; Gibson and Tait, Fountainbridge, Edinburgh, for collection of gates, fencing; J. Gordon, Castle Douglas, for collection of ploughs; J. Gregory, South Shields, for single horse reaping-machine; Halliday and Thompson, Dumfries, for collection of reapers, grubbers, &c.; Haughton and Thompson, Carlisle, for collection of hay-rakes and corn-dressers; A. Jack and Sons, Maybole, for collection of mowers, reapers, and rollers; Kemp, Murray, and Nicholson, Stirling, for collection of reapers, mowers, grubbers, &c.; Lillie and Elder, Berwick-on-Tweed, for collection of reapers, mowers, grubbers, &c.; Lindsay and Anderson, Dumfries, for collection of fire-clay articles and designs for workmen's houses in brick; Mackay and Fairbairn, Sciennes, Edinburgh, for gates, fencing, &c.; A. and J. Main and Co., Glasgow, for collection of fencing, wire strainers, &c.; R. Mitchell and Son, Peterhead, for collection of ploughs; G. W. Murray and Co., Banff, for collection of ploughs, &c.; Piekley, Sims, and Co. (Limited), Leigh, Lancashire, for chaff-cutters, mowers and horse-rakes, &c.; T. Pirie and Co., Aberdeen, for collection of ploughs; B. Reid and Co., Aberdeen, for seed-drills, manure distributors, &c.; G. Sellar and Son, Huntly, for ploughs; T. Sheriff, Dunbar, for sowing-machines, &c.; W. Shivas, Old Machar, for ploughs; Leighe and Smith, London, for Garrard's rick-cover; A. Walker, Gorebridge, for reaping-machine; B. and S. Massey, Manchester, for steam-hammers; North British Rubber Company, Edinburgh, for improved rubber valve, and collection generally.

MEDIUM SILVER MEDALS.—T. Bradford and Co., Manchester and London, for collection of washing machines, &c.; F. Campbell, Dumfries, for collection of wagonettes and dogcarts; J. Dand, Carlisle, for collection of horse-shoes; De Leon and Andre, London, for collection of type machines; J. Fallas and Co., Dumfries, for collection of harness; E. Gray, Sheffield, for collection of cast and rolled steel implements; F. J. Heap, Manchester, for collection of earth closets; E. Hoatson, Dumfries, for collection of broughtams; W. W. Kennedy, Edinburgh, for collection of sewing and knitting machines; Kimball and Morton, Glasgow, for collection of sewing machines; T. Mackenzie and Sons, Cork, for collection of knife-grinders, &c.; J. C. Milligan, Castle Douglas, for collection of saddlery; W. Mitchell and Co., Manchester, for collection of knife-sharpeners; Moules Patent Earth Closet Company (Limited), London, for collection of earth commodes; D. Rae, Newton-Stewart, for collection of harness; J. Richardson, Carlisle, for collection of fanners and dressing machines; Shiels and McDonald, Edinburgh, for collection of carriages; W. Sinton, Jedburgh, for collection of churns; Ingham, Taylor, and Wheatley, Manchester, for collection of washing machines; J. and T. Young, Ayr, for collection of reapers, mowers, and engines; J. Hislop, Coatfield, Haddington, for wagonette and Whitechapel cart; T. Hunter, Maybole, for Armstrong's harrows; W. McCormick, Dumfries, for steel moulds; G. T. Stirling, for Whitechapel cart and wagonette; J. Baker, Wisbeach, Cambridgeshire, for collection of fanners; Barr and M'Janet, Ardrossan, for collection of fire-clay articles; P. Brown, Pencaitland, Frauent, for reaping machine; W. and A. Douglas, Stranraer, for reaping machine; H. Field and Son, Glasgow, for collection of wringers, boilers, and freezers; J. Glover, Gelston, Castle-Douglas, for collection of sheep-bars and sowing machine; A. Guthrie, Craigo, Montrose, for ploughs; A. Hogarth, Kelso, for reaping machines; D. Hunter, Dumfries, for thrashing machines; M. Jack, Cra-

mond, for collection of spades, &c.; H. and G. Kearsley, Ripon, for reaping machines; J. Kerr, Dumfries, for farm-cart and sowing-machine, also for collection of ploughs and sowing machine. Law, Duncan, and Co., Shettleston, Glasgow, for collection of farm implements; J. B. A. M'Kinnel, Dumfries, for collection, and especially for patent turnip-cutters.

MINOR SILVER MEDALS.—J. R. Stiles, London, for collection of refrigerators; W. Hudspeth, Haltwhistle, Northumberland, for earthenware pipes; W. Carson, Carlisle, for potato separator; T. M'Cririck, Cumnock, for churning-machines; J. M'Kie, Woodhead, Penpont, Thornhill, for double mould plough; E. Martin, Closeburn, Thornhill, for collection of swing ploughs and harrows; C. Rigg and Son, Saughar, for set of drainage tools; T. Rogerson, Loehmaben, for harrows and grubber; J. Watt, Biggar, for broadcast sowing-machine; D. Williamson, Cample Bridge, Thornhill, for carts and pulper; Wingate and Lowe, Alloa, for collection of meat-coolers and turnip-slicers; W. Milligan, Dumfries, for collection of plants and flowers; Little and Ballantyne, Carlisle, for collection of agricultural seeds, plants, &c.; J. Dickson and Sons, Edinburgh, for seeds and plants; T. H. Oney, Dumfries, for collection of seeds and plants.

RECOMMENDED FOR TRIAL.—R. L. Mactaggart, Edinburgh, for self-delivery reaper, mowing-machine, self-acting horse-rake, and combined reaper and mower; R. Hornsby and Sons, Grantham, for governor self-raker reaper; G. M'Cartney and Co., Cumnock, for three or four horse-power thrashing-machine.

THE DINNER

took place on Wednesday evening. The EARL OF DALKEITH, who presided, said he might refer to the fact that this was the third best show that had taken place under the auspices of the Society. The show in Glasgow in 1857 was the largest, and the Edinburgh Show was next, Dumfries being the third best as regarded stock, and second as regarded implements. He thought they might congratulate themselves on this position of matters. In regard to the implement department, which was very useful to agriculturists, it was unfortunate that the space allotted to implements was not a little more, but by the judicious arrangements which had been made by the secretary, visitors had been enabled to see the implements pretty well. With reference to the stock, he must call attention to the Galloways, Shorthorns, and Ayrshires, which were very good, and superior to many that had been seen at previous shows. The sheep, too, were particularly good, while the Border Leicesters and Cheviots had never been excelled. The draught horses were very superior, and there were a great many of them. The saddle and other horses hardly came up to the mark; but he thought the country could produce better.

Mr. JACOB WILSON, in reply for the National Agricultural Societies of England and Ireland, recommended some sort of international show every ten years, in order that Scotch and English breeders and farmers might interchange more thoroughly and effectively their ideas on feeding and breeding, and farm cultivation. He and other agriculturists in England had looked forward to the report of the Highland Society's Committee on steam-cultivation in East-Lothian; and he was sorry at the terms of the report, because he knew that steam-cultivation had received an impetus from Scotland, if not from the county of Dumfries itself. He hoped that many Scotch makers would come forward and compete next year for the £1,000 which the Royal Society offered for the best system of steam-cultivation.

The Duke of Buccleuch said that the fact of his being a successful competitor was no fault of his own. Why did not any of them beat him? Never venture, never win. They could never tell the value of their stock until it was measured with others. He had shown stock, and had been beaten, and had accepted the defeat because it was deserved. He agreed with Major Walker that breeders did not show stock in order to get prizes, but for the purpose of exhibiting what they had, and what really was the stock of the country. Many people nowadays were going in for crosses. They were profitable and seductive. He was afraid that by going so much into crossing they would have nothing else, and he wanted to keep up the pure blood. If crossing were carried too far, animals would be deteriorated. They would get the weaknesses of all, without the strength and purity of any one of them,

What he wanted to do was to keep up the purity of the breeds. He could not farm the whole of his land, and he was compelled to let it out to those excellent agriculturists who had now farmed the land for years. They had grown upon this, and he might say that his tenantry and himself were like one family. What hurt one hurt the others, and what rejoiced one was a source of joy to the others. Long might they continue so! He was not going to humbug them, however, and say "You are the finest set of fellows in the world," for that was as much as to say that the tenantry of Scotland were perfect.

That was the *argumentum in absurdum*. Neither were they the best agriculturists in the world. No doubt they had to contend against the climate; but, by the way, he thought too much had been said of the climate. It was an excuse for everything. For instance, a farmer allowed his hay to rot, and it was the climate; he soaked his potatoes and turnips, and the climate again was to blame; he forgot to plough at the proper time, and the climate was blamed for that folly also. He might say that when he got to the south of Scotland he was proud of the tenantry.

BRIDLINGTON AGRICULTURAL SOCIETY.

This Society, one of the oldest of its class in Yorkshire, continues successfully the sphere of its operations. The thirty-fifth anniversary was celebrated on Wednesday, July 27, and the show was perfectly successful. The weather was fine, the attendance of company numerous, and the display of stock of a superior description.

The entry of cattle was double that of last year, and the sheep and pigs, although numerically small, were yet above average merit; while the class for hackney mares or geldings of any age brought no less than twenty-one animals to the post.

The following were judges: For sheep, cattle, pigs, and agricultural horses—W. Bartholomew, Waddington Heath, Lincoln; John Clark, North Ferriby, Brough; and Thomas Dodds, Mount Pleasant, Wakefield. For hunting, coaching, and roadster horses—Jacob Smith, Humberston, Borough-bridge; John Wood, Market Overton, Oakham; and Francis Jones, Cheltenham.

PRIZE LIST.

E.E.P.

Shearling ram, E. Riley, Kipling Cotes Farm, Beverley; second, E. Rily.

Three shearling rams, E. Riley; second, J. J. Simpson, Pilmour House, Hunmanby.

Aged ram, E. Riley; second, G. Bourdass, Bridlington.

Five Shearling gimmers, E. Riley.

Fat wether, ewe or gimmer, F. Day, Carnaby

EXTRA STOCK.—G. Taylor, Sewerby Cottage, Bridlington, for ten cross-bred sheep.

SHORTHORNS.

Two years old or aged bull, F. C. and E. G. Warren, Manor Farm, Dunnington, Siggleshorpe; second, T. Franks, Fylingdales, for Hopewell.

Yearling bull, W. Linton, Sheriff Hutton, for Lord Irwin, he also taking the cup for the best animal in the Shorthorn classes; second, J. S. Jordan, Elmswell, for Nestor.

Cow in calf or milk, W. Linton; second, F. Joreau's executors, Eastburn.

Two years old heifer, Rev. Y. Lloyd-Greame, Sewerby House, Bridlington.

Yearling heifer, T. Hornby, Flotmanby; second, G. Taylor.

Heifer calf under twelve months old, W. Linton; second, T. Hornby.

Fat ox of any age, G. Taylor.

Fat cow or heifer of any age, Rev. Y. Lloyd-Greame.

HORSES.

Hunting mare and foal, G. C. Jarratt, Harpham; second, J. Smith, Marton Lodge, Bridlington.

Three years old hunting gelding, Sir G. Cholmley, Boynton; second, R. Wise, Sewerby Field, Bridlington.

Two years old hunting gelding or filly, T. Woodcock, Tibthorpe; second, F. Leighton, Osgodby.

One year old hunting gelding or filly, T. Cranswick, Rudston; second, G. C. Jarratt.

Three years old hunting filly, Sir G. Cholmley; second, J. S. Darrell, West Ayton.

Coaching mare and foal, J. Smith; second, J. Johnson, Brigham.

Two years old coaching gelding or filly, W. Coleman, Fraisthorpe; second, J. Taylor, jun., Burton Agnes.

One year old coaching gelding or filly, Mr. Piercy, Garton, Driffild; second, M. Rounding, Fraisthorpe.

Three years old coaching filly, J. Johnson; second, R. Lowish, Haisthorpe.

Hackney mare and foal, W. Major, Sledmere; second, F. Jordan's executors.

Two years old hackney gelding or filly, T. B. Wilson, Folkton; second, H. Crompton, Rnston Parva.

Mare and foal for agricultural purposes, Mrs. Smith, Bempton; second, W. Milner, Lissett.

Horse or mare for agricultural purposes, G. Angus, Beeford Grange; second, H. C. Babington, Bridlington.

Two years old agricultural gelding or filly, G. Angus; second, J. Smith.

One year old agricultural gelding or filly, R. Davison, Bempton.

Pair of horses, either sex, for agricultural purposes, J. Simpson.

Nag or mare pony, not exceeding 12 hands high, W. F. Watkinson, Hull; second, J. W. Jordan, North Burton.

Stallion for hunters, H. S. Constable, Wassand; second, W. Shaw, Skipton.

Stallion for roadsters, T. Brown, Butterwick; second, P. Triffitt, Holme-on-Spalding Moor.

Stallion for coach horses, J. Stockdale, Skerne; second, W. Ilance, Garton.

Stallion for agricultural purposes, W. Simpkin, Burton Agnes; second, J. Johnson, Bempton.

Four years old hunting mare or gelding, W. Myers, Ulrome; second, W. Stephenson, Cottingham.

SPECIAL PRIZES.

A silver cup, for the best hunting mare or gelding four years old or upwards, Henry Jewison, Raisthorpe; second, J. S. Darrell, West Ayton.

A silver cup, for the best three years old coaching gelding, R. Omler, Park House, Genbling; second, J. Thompson, Mount Pleasant, Bishop Burton.

A silver cup, for the best hackney mare or gelding of any age, J. Robson, Rose Villa, Old Malton; second, W. Stephenson, Cottingham.

A silver cup, for the best hunting mare or gelding four years old and upwards, J. S. Darrell; second, J. Robson.

A silver cup, for ponies not exceeding 14 hands high, W. Simpkin, Burton Agnes; second, Mr. Medcalf, Bridlington.

PIGS.

Boar, large breed, G. Chapman, Seamer; second, G. Chapman.

Sow or gilt, large breed, J. Thompson, Seamer; second, G. Chapman.

Boar, middle breed, G. Chapman; second, G. Chapman.

Sow or gilt, middle breed, G. Chapman; second, G. Chapman.

Cottager's pig, R. Atkinson, Seamer.

EXTRA STOCK.—J. Thompson, Seamer.

THE YORKSHIRE AGRICULTURAL SOCIETY.
MEETING AT WAKEFIELD.

The horse, as the character of our reports will serve to show, is becoming more and more the hero of these occasions; as, indeed, at the North Country meetings a very large proportion of the visitors would seem to have no other object in view. The talk of people as they journey to and fro—for no one who could possibly avoid it ever thought of staying in Wakefield—turns almost altogether on the four-year-old class or the entry for the Badsworth Hunt Cup. Nor did the disposition of the show-ground serve very materially to correct this propensity. So admirably arranged, as usual, was the trial ring, that men settled themselves by its side forthwith, or took their seats in the Stand, resolved not to have their attention in any way distracted from the great business of the day. There was, to be sure, in an adjoining inclosure a very creditable display, as times go, of Shorthorn cattle, but it would be almost impossible to convey an idea of how little interest was taken in this section of the proceedings. Some dozen or two of listless-looking gentlemen watched the wards, tolerably proof against the attractions of the other circle; but even these spoke more of stock just shipped for Cauada than of the animals paraded before them. Further afield there were Leicesters and Lincolns, and big whites and Berkshires, but beyond an anxious exhibitor or so, it is doubtful whether anybody ever inspected such "kind of cattle," unless he had lost his way on a run through the horse boxes. He must have been a very keen hand who faced the opposite hill where the implement stands were arranged; as, in fact, however good the intention, he would most probably be stopped in the outset by a glimpse of the Captain on Borderer, or of his "very faithful servant" vainly endeavouring to get Don Juan's head into its proper place.

As usual the shedding and boxes were capital, for horses cannot be better cared for than at the Yorkshire Agricultural Society's meeting. But those who have to get these up go to work in a very different way, as regards £ s. d., to that of the Royal Society's people. For at Beverley last year it cost this Society £356 13s. 9d. for boxes and stalls for 359 horses, while the Royal Society in the same year at Manchester pay £1,185 9s. 1d. for housing 396 entries! Verily there is nothing easier than squandering money; but surely a £100 or two may be spared out of this as prizes for thorough-bred stallions and hunters without stinting the workmen, during the erection, of iced champagne or any other delicacy of the season. The Wakefield horse ring might have been better going with a little tan, as it was very slippery in places, while there was not quite the care paid to the numbering of the horses as we have seen, for several came in without any number, and others only ticketed on one side the head, while many numbers were flapping about like the direction on a flying hamper, and others so crumpled as to be quite illegible. In other respects everything was in the customary apple-pie order. Instead of two sets of judges going to work on the first day, as of yore, there was only one, as the agricultural bench did not commence their duties until the Thursday. As the public pay more than double on the first day, we think they should be shown as much as could be, time being precious, for many a familiar show-going face that was in the stand or round the ring on the Wednesday was not

to be met with on the Thursday. As a show, for Yorkshire even, it was good, but not so grand in many classes as we have seen. For instance, there have been better thorough-bred, coaching and roadster stallions, and hunting and roadster brood mares, and we think a better lot of hunters at Beverley. We are not judging them by the winner of the Badsworth prize, as if he were the best they were poor indeed, for his action in his slow paces is that of a hack or machiner. In a gig or dog cart we will allow he would be grand, but no one would cry shame on seeing him between the shafts, as in his gallop he labours and does not get his forelegs away, but goes as round as a Dutch cheese—action that looks more like turning a churn than living with hounds. We have had on Oliver Cromwell's helmet, and slept in the same bed as Queen Elizabeth, as well as shaken hands with the man that refused two thousand guineas for a cow, but never did we dream of travelling from London to Wakefield to see a neat gig horse awarded a hundred guinea hunter prize. "The Cap'un is getting fond of his mount, and you bay will have the prize, if the auld 'un ever tires of riding him round," says one. "Ah! he is a good 'un is you bay. You cannot stick a bad 'un into Master Sammy," rejoins another. Then the Captain mounts horse after horse, and our neighbours prophesy each will have the "prize," for the Captain is as fond of a ride as a lad on a round-about, and to these interminable gyrations smacking of the whirlpool, are we indebted for the extraordinary verdict given in for the Badsworth Hunt cup, as we think such doings would muddle the heads of Minos, Rhadamanthus, and Eacus, saying nothing of any ordinary men. It is a grand class, this for the cup, with at least fifty horses, and many very taking ones as hunters. The judges have a difficult task before them, and go boldly to work by drafting at one fell swoop more than half of them, though some of the drafted strike us as looking more like hunters than several left in; but such is the chance of war. Round they go again, and ten more have got their tickets of leave, that neat quiet horseman, Mr Jacob Smith, trying all he knows, with his fine hands, to win the eye of a judge; but it's no go, and out he goes as their whipper-in, without creating a "sensation," although mounted on a lofty chesnut of that name. Six more are on the retiring list, Mr. Jewison's chesnut mare Marigold being one of them, and as good a galloper as any of the fifty. Now eight are left in to fight it out: Loiterer, Julius, Cowthorpe, Don Juan, Young Artillery, Brian Boru, The Knight, and Chorister. The Captain is up again, on the powerful-framed fiddle-headed Knight, of Drillfield and Bridlington renown, and now Mr. Elliott, a good horseman, jumps up, but never did we see any man try so hard to be on bad terms with his mounts. As there are whispers as to the Knight's wind, a rare dressing the poor fiddle-headed fellow comes in for. It was an unseemly sight in a show-ring, and such things ought to be left to the veterinarian, as it must be tantalizing in the extreme for an owner to see his horse kicked, thumped, jagged, and jerked about as the Knight was. Now they are on to Julius, by Orpheus, not unknown to the show-yard, but more often in the entries than in the flesh. Here he comes going with his nose poked out, more like a crocodile than a hunter, and his white heels never under him; in fact, he is a washy sort of loose framed horse, that

when extended, looking at his nose and heels, if it be possible to take them in at once, seems as long as the Great Eastern, and to take almost as much time to wear round. Then Juan, a better framed nag, although we fancied they both went gingerly behind, more especially after standing still, is all wrong in his neck, and as his head is not in the right place, in form he cannot be a hunter, as we have said from the day he was first shown. He is very well steered by "Auld Bob." The white-legged bay goes all round like a hunter, and if Loiterer could move like the second at Manchester we would sing his praises all the day long, for the Young Artillery horse wants just a dash more blood; but, nevertheless, he is a most useful one, and, no doubt about it, the best goer of the eight, while many think he will be there or thereabouts, although to give Chorister, the second at Ripon, his due, the judges never mounted him. The Captain appears to be over sweet on the Young Artillery horse, and prevails on Mr. Elliott to get up, who commences with one of his ferocious jerks, to see if he can pull the horse off his legs, we suppose, or try if his mouth is of iron, brass, or adamantite rock. The lengthy short-legged powerful Cowthorpe, though a bit shelly, a loose goer, and of a bad colour, is a big-framed growing animal, in his fifth year, that we shall expect to see again in better form. Brian Boru the judges don't take to, or send along like his owner, who rides sixteen stone. But it's over, and Mr. Booth leads him away something after the fashion Sam Chifney did Young Rowland after a Derby of our younger days. Colonel Markham's old grey was of a rare mould, but we have not space to give a word for all the good looking ones or prize horses we ticked, and as we could not catch the numbers of some it would be unfair, but we have no doubt another set of judges might select half-a-dozen or more among them and give quite as much satisfaction as those put on the prize list.

With nineteen in the flesh out of an entry of twenty-six, the four-year-olds made a very good show, including Comrade and Borderer, the first and second at Islington, and Mr. Paddison's bay by Epicurean, who beat Comrade and Borderer at Sleaford, Comrade playing second and Borderer only coming for a commendation. The Islington horses are now the property of the Master of the Rufford, and Borderer here turns the tables on both his rivals, as we described him when second at Islington as "a very good-looking, hunting-like horse of Mr. Booth's," since when he has greatly improved, while Comrade we described as more of a charger. Still the Sleaford bench reward the charger as a hunter, and only commended Borderer, while here Comrade is drafted, not that that matters much, as with him goes a thorough-bred, hunting-like horse, with great thighs, that the judges do not condescend to look at, although as slashing a goer as ever came into a show-yard. This is Goucaway, by Cape Flyaway, and the property of Lord Feversham. Then Sir George Cholmley's Brunswick looked like a used-up swell that never had any life or go in him; while Mr. Kendall's Falcon could move, though raw and common-looking, and he was honoured by being kept in by the judges, for which act of courtesy Falcon had a great inclination to treat them as four-corner pins, and attempted several swoops among them. The third, with a name now getting as common as Albert, is a big lazy, deep-topped, bad shouldered horse and no mover, that looks like laying on you if he fell, so that you would "always find a protector in Lothair," as they say in the play. It may be added, that on the objection of Mr. Clarke, of Howden, Comrade was disqualified by the Sleaford Veterinarian as lame, although two at least of the Judges are ready to say he was not. The first and second four-year-old fillies were fair samples, the first having more power and the second the best action; while the

third of Mr. Robson's had not much form, and Mr. Wellitt's Colleen was remarkable for great bargey buttocks besides going wide behind. Dandy, a gentlemanly-looking three-year-old, by Angelus, has a little too much light under him towards the stifle; but the second was a deep-framed one; and the third a powerful-looking colt, but lacking quality, and a trifle deficient in bone below the knee for his grand top. The three-year-old fillies were poor, and only half a dozen of them, the third, Miss Annie, having taken a second at Thirsk. The two-year-olds were a trifle better, Portland being a lathy colt, with breed; and Hugh, by Strathern, of fair form; while Tom Benact was a rather leggy brown, showing blood, but shortish in his quarters. The celebrated Go-ahead was again in the fore in hunting brood mares; but Heliotrope, who we said when third at Oxford and second at Sleaford had a slice too much of the coacher in her, was unnoticed. The second and third were nice mares, the third falling off a trifle in her quarters, but she has great quality with a nice forehead. The thoroughbred stallions, always an interesting class, are not quite up to Yorkshire form, but still comprise Stampedo by Alarm, Grand Master by The Great Unknown, Volturco by Codrington, The Provost by Dundee, Bertie by Newminster, Schuloff by The Cossack, Laughing Stock by Stockwell, Sincerity by Red Hart, Poynton by Poynton, Precceptor by Rataplan, Rowsham by King Tom, Spendthrift by Wild Dayrell, and Ancient Briton by Cothelstone. Cragune, a grey coachy-looking animal was also in the class; but Redoubt, and Vansittart by Young Melbourne were absentees. The contest was between Stampedo, Sincerity, Laughing Stock, and Grand Master. The first on the list is Stampedo, with the white face of his sire, and a winner, if we recollect, of the Northamptonshire Stakes, that we afterwards saw sold at the old Tattersall's, accompanied by his dam and an Irish Birdcatcher mare that went to Eltham. He was then in training, and Captain Skipworth now puts away his long tail with his stick to show Mr. Elliott and Mr. Parrington—own brother to Secretary who is acting for the absentee, Mr. Milne—his curby hocks, which when in training were fearfully blemished. But he is not the first that could go with such infirmities for Master Frederic a steeplechaser and hurdle racer, about whom there was such a row, was one of many, we recollect, with much worse hocks than Stampedo, that could go through dirt like a Ransome or a Howard, as could that wiry gelding British Yeoman, that Jem Mason loved to ride, and that, like Stampedo, inherited none of the best hocks from his dam. But these are exceptions to the legion of beautifully-made horses which, as with Achilles, are invulnerable everywhere but just in that most important part. If it were not for his hocks, the white-faced brown, with his quality, must have won in a canter, what with his grand, lengthy, muscular frame, good short limbs, and really capital foreleg-action—so different from Laughing Stock's fibbing pump-handle work, which is all very well when running up and down a market-place as a bait for a London dealer. Sincerity looked better than at Oxford, but wants a little more quality; as we quite agree with transposing the Oxford verdict, and putting him before Laughing Stock, a horse that we do not believe in at all. The nicely-formed Grand Master we have seen in better company take a higher place; but he goes more hobbling than ever. Then Sir George Cholmley appears to have a fondness for wide, straddling hind-leg-action and weak, curby hocks, as he is now the owner of the otherwise good-looking and taking Volturco. There is something taking about old Schuloff, while Bertie looks more like getting racing galloways than weight-carrying hunters, and Cape Flyaway has some quality and good points, if heavy at the points of his shoulders, and with his tail not set

on but tucked into his rump like that of a rocking-horse. Poynton is a coach-horse; Wrosham has bad ankles, and we are not in love with him; while the wiry-looking Ancient Briton is also bad in his ankles, and with his light, hollow-backed middle and length of leg, anything but a show-horse. The others rather weakened the class than strengthened it, except in numbers. On the whole, hocks and all, we go with the verdict.

There were only eight coaching stallions to twenty-one at Beverley last year; but then the stylish-looking well-known Emperor, who was second there, was here, without doubt, at the head of the poll; while the third at Beverley, Tramp, took the same position here, having to make room for Richmond, a very level good-limbed promising three-year-old of Mr. Holmes', out of his old mare Betsy, who took the all-England prize at Battersea. The mares only mustered four, the first being a nicely-formed one, and a winner of a few prizes; while the second was of a good mould on a short leg. There were several capital specimens in the two-and-three-year-old coaching geldings and fillies; in fact, the bad were scarce, but then they did not muster more than sixteen in all. The roadsters, in force, were about half as strong as at Beverley, there being only ten stallions to seventeen there, and a horse, Lord Derby, unnoticed at Beverley, was placed first here. He is of fair form, a little over at his shoulder-point, and back at his knees; but he can move. Shepherd F. Knapp, the well-known American trotter, who now stands at Myton Hall, was thought by the Beverley bench to be the best in a much superior lot; a verdict that many coincided with, but here he was scarcely noticed! He is a horse that wants showing, and when the Major purchased him we think he should have bargained for "Mac" also, as if he be not properly shown, it is something like having Punch and expecting him to be funny without engaging the gentleman who does the hoity-toity business. Commander-in-Chief is a big brown three-year-old, on a short leg, that struck us as being too large for the purpose, and deficient of roadster character; and we were better pleased with the size, form, and action of Blazeaway, who went all round; or Bay President from Malton, a horse of quality, form, and action, who has that peculiar rattling or chuckling noise in the sheath when run up and down. In a class of four our great aversion, Hammering Polly from Sledmere, was the chosen.

The three-year-old roadster, hackney, or pony geldings and fillies were an ordinary lot, that one may get a sight of every day, as the ploughman said of the vegetables when handing up his plate to the squire for the fourth helping of beef. "Don't you eat vegetables, John?" "No, zur; I can get a sight of them every day in the week." In a very good class Mr. Hornsby's grand old mare Bada had to play second to Fugleman, a lengthy strong cob in roadsters, up to fourteen stone; while in those up to twelve stone, the neat lady-like mare Marguerite, with park action, won; the second being a powerful cob of Mr. Holmes', that with another dash of blood would be more valuable, though still a very useful animal; the third was a nice one, and Mr. Hornsby's, Odd Trick, was anything but a bad one. There was a good class of ponies under fourteen and a-half, and three little things under twelve and a-half hands.

Of agricultural horses there was a good display, commencing with a grand class of eighteen stallions. Lincolnshire, a one-eared horse and a great prize-taker in Yorkshire, that beat Honest Tom at Beverley last year, being quite lost and almost appearing as a pony among them. But certainly it struck us that these horses, though active, were more dray horses than farm horses. The first, Nonsuch, has as good a head as was ever put on a cart horse, for he has less of the dray horse than the

others and a grand forehead, with a capital middle on good short limbs, and if there be anything to attract the eye from his beautiful even form it is a rather goosey rump. He beat Lincolnshire at Thirk the other day. The second, Clydesdale Tom, is a deep, thick-set, short-legged horse, not a lively mover, especially behind; while the third, Active, was a powerful handsome roan.

In the three-year-olds Royal Duchess, who we noticed in our Sleaford and Oxford report was first, the second being an active filly of fair form but rather high on the leg, while Bonny is a very powerful lass. In a capital mixed class of four-year-old fillies and geldings, with some really handsome animals among them, Diamond, a winner we were told of a hundred prizes, and a deep, lengthy, short-legged black mare, quite a model, that the most particular would scarcely wish to alter, went to the fore as active as a kitten; followed by Warwick, a beautifully-made chestnut, whom we have seen before, and Mr. Brierley had also a very handsome grey, Sensation, who moved as light as a coach horse, and that we noticed at Birmingham, is a little back at the knee and deficient of bone. The third, Nancy, another grey, is a very good-looking one as well as a mover, but injured about one of her hocks. There was a small but good class of black brood mares and foals—real Yorkshire—with one chestnut among them, viz., Mr. Statter's Fanuy, by Lincolnshire, that was first at Beverley last year, but now unnoticed. Mr. Hutchinson's Darling was a model, if all right.

As times go we have said the Wakefield was a creditable show of Shorthorns, but no doubt it is a weak year, in the way at least of exhibition stock; while there are authorities who maintain that although we breed more we do not breed such grand specimens of the Durham as we did. Or put it in another light, the absence of such a name as that of Mr. Booth from the lists makes a great hole that is not easily filled up; although clearly the best show Shorthorn of his time was at Wakefield. This is Mr. Brierley's Bolivar, who came on from Oxford and Sleaford in rare bloom, and in turn took the first prize of his class, another prize as the best of all the bulls, and the £50 cup as the best Shorthorn in any of the classes. He had, in truth, but one competitor, and this was Queen of Rosalea for the cup, a cow that at six years old is still improving in the most marvellous manner, tining rather than growing coarse as she once threatened to, and now presenting a very handsome if not actually elegant appearance. But then Mr. Ward is a most wonderful manager. He is now out with his troop for the season, bound still further north, and the more they travel the more they are knocked about, only all the better do they look; so that there must be something very sound in the system. Thus we never fancied Bythis so much as we did at Wakefield, for he really seems to have got more level in the interim, although of course the Oxford "mistake" was corrected at Sleaford, where three such men as Mr. Drewry, Mr. Sanday, and Mr. Charles Howard, placed Heydon Duke before Bythis. But the Yorkshire Society once more afforded a Court of Appeal, more particularly as the three Royal prize yearlings were all sent on, and a fresh bench placed these precisely as they had finished at Oxford—that is, Bythis *first*, Lord Irwin *second*, and Heydon Duke *third*. It should be stated, moreover, that neither Mr. Atkinson nor Mr. Parker had previously seen any of these animals, while the third judge, Mr. George Garne, who knew the three well enough, kept his opinions to himself until his colleagues had declared, and then the decision was found to be unanimous. Nor are we disposed to quarrel with this. As our Sleaford report of last week said, "travelling does not seem to agree with Heydon Duke, or his trainer has not the knack of keeping him in condition," and never certainly

has a beast gone to pieces so rapidly. He showed more faults at Wakefield than we should have imagined he could have developed; he has lost his flesh, fallen terribly flat in his sides, got bare above, and but for a certain style and quality could scarcely have finished where he did. We always liked Mr. Linton's white, a very neat young bull that has only to thicken to grow into the best of the three yet. At the same time, we are quite willing to allow that the Oxford "mistake" is now by no means so glaring as it then appeared to be, while by public appraisal the merits of the two bulls are so far exactly equal. Thus at Saffron Walden, Heydon Duke beat Bythis, at Oxford Bythis beat Heydon Duke, at Sleaford Heydon Duke beat Bythis, and at Wakefield Bythis beat Heydon Duke. Never was there a finer illustration of turn and about; but it should end here, at least for the present, and the Duke be booked back for Essex by the next Express up.

In the old class Lord St. Leouards from Mr. Fawkes' herd, a good deep bull of fine character, but not very level, beat Bolivar's half-brother Charlie for second, although the red has grown into a very handsome beast forward, if he fails behind, standing very in and bad on his hocks. The judges added no commendation in the return for this class of five only, and so left out Robin, a stylish but slack bull that was put above Charlie at the Lincolnshire show in the previous week. With nice discrimination the council gave the smallest money prize for bulls to the worst lot, that of two-year-olds, where the very moderate Baron Hubback won, although we infinitely prefer the second, Prince Leopold, who is fulfilling all his early promise, and growing into a straight, lengthy, broad bull, combining some fashion with much use. With Mr. Stratton out of the way the bull calves were very much in the same order as at Oxford, Mr. Dudding's "lengthy and stylish" Robin Hood again winning, and the Oxford Butterflies having the next best of it. Then Lady Ann was again next to Queen of Rosalea; but Lady's Slipper, an extraordinary cow at eleven years old, who has preserved much of her shape, has a great bag, and is again in-calf, was put out by a plain, paunchy, white heifer, very narrow and mean behind—the worst decision of the day; although the judges had the grace to highly commend Lady's Slipper and a couple of nice cows from Mr. Bradburn's herd. The Double Butterfly three-year-old, or two off, does not look like training on; and Windsor's Butterfly, her second, a coarse heifer with not much of the Butterfly about her, still again beat some of the home-bred Butterflies, of which they seemed to have picked over a sample for Wakefield, some of the entry not being sent. Vesper Queen, the third in the grand Royal class of yearlings, with her two five-hundred-guineas superiors shipped off, here succeeded to first place; and a thick good-bodied heifer she is, but with her head tapering away very narrow to her nose, and somewhat mean in the finish off of her quarters. The Branches Dame Swift is coarse and common, and not nearly so good to look on as Mr. Brierley's Scrapp, or the highly commended Concert from Osberton, where they are getting on again with another herd. Their Fleur-de-Lis, indeed, the best heifer calf at Sleaford, was here a close second to Baron Oxford's Duchess, first at Oxford; while a very handsome telling heifer, bred by Major Stapylton, was third in a class so generally good that everything shown was commended. And then the dam of the best heifer-calf, Duchess of Lancaster 2nd, was declared to be the best dairy cow; the Foljambe Rosebud, which was best at Beverley, being now nothing more than bag and bones, or a bag of bones, and, of course, not as such to be esteemed by Shorthorn judges. The Alderneys or Jerseys were nearly all fawns, and nearly all coarse in their character. Is there anything in this, for Mr.

Duncey's fawns were generally coarse? and they seem to breed a number of their own Alderneys in Yorkshire.

The Leicester judges came back to the Royal reading, and put Mr. Borton's ram, first at Oxford and nowhere at Sleaford, first again here, with the Sleaford first now second. The judges considered a sheep shown by Mr. George Turner, jun., to be a particularly good ram in a not particularly good class, but they gave Mr. Borton all the prizes, took little note of Mr. Hutchinson's, or the rams exhibited by other well-known breeders, as we are inclined to think with them, or rather as we said of the Leicesters at Oxford, they do not this year show any very remarkable merit; although Sir Tatton Sykes takes the first shearling for the season at quite "an average" good figure. In the old rams the Royal Blue Cap was beaten by a five-year-old sheep of Mr. Sanday's, an extraordinary ram certainly at his age, with a capital touch, and really keeping his wool well for his time of life, while he has a deal of breeding, if not backed by any great size. The Holme Pierrepont best sheep of last season took nothing, and the good ram with which young Mr. Turner was made reserve at Oxford was nowhere now, the third prize going to another entry from the same flock; but the judging here, as in the previous class, was no doubt occasionally a little wild. The Brandsby ewes are as beautiful and as high-bred as ever; a long way, according to Mr. Torr, the best Leicesters on the ground; and Mr. Hutchinson and Mr. Borton were once more just one above the other, as they were at Oxford and Sleaford, with some of the same ewes. The competition in the Lincoln classes was very limited; and Messrs. Wright, Dudding, and Cartwright, continue to maintain, in the three classes of shearling rams, old rams, and ewes, very much the positions they have held so far during the season. Mr. Gunnell from Cambridgeshire made no entry; and Mr. Marshall, like Mr. Booth, seems to have "sold out." Still this was a very meritorious exhibition, while to the remarkable merit of the old Lincoln rams we spoke at Oxford, as the judges did here. With the aid of an equally active colleague, Mr. Henry Overman came all the way from Norfolk for some half hour's work, as by the time some of the other "sets" were beginning the short-wool men had finished. They could see nothing particular amongst the Shropshires but Lord Chesham's neat smart sheep, which took every prize for which they were entered, and, of course, the goblet for the best of all the rams; although nothing was sent from Latimer into the old class, where the best sheep, as it was, had a deal too much wool. The Yorkshire Society employs no shearing inspector, but Mr. Parrington might originate an amendment that it is said will shortly be required of the Royal Agricultural Society. This is that servants be engaged by the management to lead the sheep out before the judges, as it is contended that the presence of a well-known shepherd directly identifies the owner of a sheep, and no doubt it does. For our part, we really cannot see why all stock, excepting bulls, stallions, and riding-horses, should not be shown by "Society's men;" at any rate, the experiment would be worth trying. At the same time, we are not so sure but that it might occasionally result in some very startling transpositions.

We have frequently cited a very excellent rule of this Society whereby any judge who has acted at the Royal meeting shall not be eligible in the same year for the Yorkshire; but the direction thought fit to break through this enactment in the matter of pigs, and Mr. Fisher was again in office. Of course there could be no better man, but if laws are not to be held of general observance they will very soon come to be worth little or nothing. Not, however, that the awards went precisely as at Oxford, a

Royal winner or so being occasionally put out, although almost all the best pigs came on. Thus we had Messrs. Eden, Duckering, Hatton, Fox and Nield again in prominent places on the prize-list, if with the exhibition telling more of Yorkshire bacon. The large pigs were horribly coarse, and the smaller sorts of whites far preferable. Indeed the best boar in the show was declared to be a young white of Mr. Eden's that was first at Manchester, and the best sow Messrs. Duckering's Berkshire! It is not so many years since that a black pig would have been an object of ridicule at a North Country meeting, but the Yorkshire fanciers are clearly getting free from such a prejudice, as although Black Bess was bred in Essex all the other Berkshires were born hereabouts, in Wakefield, York, and Halifax, and the judges commended the class!

The exhibition of implements was made up, according to the catalogue, in this way: Machinery in Motion.—Clayton and Shuttleworth, Humphries, Tuxford, Hornsby, Ruston and Proctor, Ransomes and Sims, Lewin, Marshall and Co., Foster and Co., Robey, Robinson, Wilson, Bradley and Craven, Ashby, Amies and Barford, and Marsden; while the stands ran on in this order: Roberts, Shackleton, Hill, Fowler and Co., Brown and Maude, Fiskin, Hunt, Picksley and Sims, Beverley Waggon Company, Clay, Crosskill, Sawney, Hydes and Wigfull, Barker, Howard, Coleman and Co., Stead, Vickers and Co., Cooke and Co., Bushell, Richmond and Chandler, Kearsley, Sanderson, Tong, Ashton, Mattison, Woods and Co., Bamlett, Thackray, Beckwith, Baker, Wray, Mason, Sherwood, Kitmer, Burgess and Key, Wade, Edwards and Son, Markall, Rainforth and Son, Green and Son, Penny and Co., Coultas, Harrison, Robey, Le Butt, Smith, Hopperton, Middleton, Eastwood, Rhodes, Ingham, Waide, Edgecombe, Mitchell, Bradford, Piggott, Jones, Bigg, Carson, Smith, Thorn, Barker, Hingate, Puckering, Hartley, Wales, Firmin, Roberts, Taylor, Smith, Boyall, Betsley, Davis, Greenwood, Spoug, Lyon, Sampson, Keighley, Cheavin, Taylor, Knowles, Smith, Belcher and Co., Reyner, Richardson, Native Guano Company, Drilfield Cake Company, Matthews, Carter, Inman.

But horses and hounds sadly interfere with machinery in or out of motion at a Yorkshire show; and at Wakefield, moreover, as at Oxford, there was no need to run the gauntlet of the implements to get at the stock, so that, if there could be any cool shade hereabouts, the cunning artificer in metal and wood must have, like Tityrus, realized the *recubans sub tegmine*, and have felt ready, for want of something better to do, to challenge chaff-cutting Melibœus to a song.

JUDGES.

CATTLE.—G. Atkinson, Hall Farm, Seaham; G. Garne, Churchill Heath, Chipping Norton; W. Parker, Carleton Hill, Penrith.

SHEEP.—Long-woolled: W. Torr, Aylesby Manor, Grimsby; J. Wood, Stanwick Park House, Darlington. Short-woolled: H. Overman, Weasenham, Brandon; P. Purves, Brampton, Huntingdon.

PIGS.—W. Goodrick, Corbridge-on-Tyne; J. Fisher, Wood House, Cross Hills.

HORSES.—Hunters and Roadsters: J. M. K. Elliott, Heathcote, Towcester; J. Farrington, Brancepeth; J. H. Skipworth, Howsham, Brigg. Coaching and Agricultural: B. Spraggon, Nafferton, Stocksfield-on-Tyne; W. Robinson, Hutton Hall, Darlington; W. Godson, Normanby-by-Stowe.

WOOL.—I. Clayton, Stainley House, Ripley.

HOUNDS.—Major Dowker; Viscount Galway; J. Farrington.

VETERINARY INSPECTOR.—Professor Spooner.

SHORTHORNS.

Bull of any age above three years.—First prize, £30, C. W. Brierley, Rhodes House, Middleton, Manchester (Bolivar);

second of £10, W. Fison and Co., Greenholm, Burley-in-Wharfedale (Lord St. Leonards); third of £5, T. Statter, jun., Stand Hall, Whitefield, Manchester (Charlie).

Bull above two and not exceeding three years old.—First prize, £20, Col. Towneley, Towneley, Burnley (Baron Hubbard); second of £10, Crawshaw and Blakeley, Headfield, Dewsbury (Prince Leopold); third of £5, W. C. Worsley, Hovingham (Duke of Roxburgh).

Bull above one and not exceeding two years old.—First prize, £30, Lady Pigot, Branches Park, Newmarket (Bythis); second of £10, Wm. Linton, Sheriff Hutton (Lord Irwin); third of £5, Lord Braybrooke, Audley End (Heyden Duke). Highly commended: Earl Faversham, Duncombe Park (Colonist). Commended: W. Bradburn, Wednesfield, Wolverhampton (White Satin).

Bull calf above five and not exceeding twelve months old.—First prize, £10, Messrs. Dudding, Pantou House, Wragby (Robin Hood); second of £5, Col. Towneley (Oxford Buttery); third of £2, Col. Towneley (Maid of Oxford's Baronet). Highly commended: Major Stapylton, Myton Hall (Lord of the Manor).

A silver cup, value £10, for the best bull in the show, to Bolivar.

Cow of any age above three years, in calf or milk.—First prize, £25, Lady Pigot (Queen of Rosalea); second of £10, J. How, Broughton (Lady Ann); third of £5, J. R. Tennant, Seacroft Lodge, Leeds (White Rosa). Highly commended: J. W. Botcherby, Middleton-one-Row (Betsy Gwynne), H. J. Robinson, The Cliff, Leyburn (Lady's Slipper), and W. Bradburn (Miss Muehy and Miss Chesterfield).

Heifer not exceeding three years old, in calf or milk.—First prize, £20, R. Eastwood, Thorneyholme, Clitheroe (Double Butterfly 2nd); second of £10, J. How (Windsor's Butterfly); third of £5, J. Outhwaite, Baines (Vivandiere). Highly commended: J. R. Tennant (Lady Frederick), and Colonel Towneley (Alice Wharfedale's Butterfly). Commended: W. Bradburn (Red Rose).

Heifer not exceeding two years old.—First prize, £20, J. How (Vesper Queen); second of £10, Lady Pigot (Dame Swift); third of £5, C. W. Brierley (Seraph). Commended: J. R. Tennant (Daisy) and Lord Bolton, Bolton Hall, Leyburn (Prestonia).

Heifer calf above five and not exceeding twelve months old.—First prize, £10, Col. Towneley (Baron Oxford's Duchess); second of £5, F. J. S. Foljame, M.P., Osberton Hall, Worksop (Fleur-de-lis); third of £2, Major Stapylton (Rose of Myton). Commended: B. Baxter, Elslack Hall, Skipton (Lady Hudson Baxter 2nd), and Major Stapylton (Honesty). A silver cup, value £50, for the best Shorthorn, to Bolivar.

DAIRY CATTLE.

Cow for dairy purposes.—First prize, £10, Col. Towneley (Duchess of Lancaster 2nd); second of £5, J. T. Robinson, Leekby Palace, Thirsk (Dairymaid); third of £2, H. Crossley, Broomfield, Halifax. Commended: H. Crossley.

Alderney or Jersey cow or heifer, in-calf or milk.—First prize, a silver cup, value 10 guineas, Major Stapylton; second of £2, J. Rhodes. The class commended.

Guernsey cow or heifer, in-calf or milk.—First prize, a silver cup, value 10 guineas, the West Riding Asylum, Wakefield.

SHEEP.

LEICESTERS.

Shearling ram.—First prize, £20, J. Borton, Barton House, Barton-le-Street; second of £10, J. Borton; third of £5, J. Borton. Highly commended: G. Turner, jun. Commended: J. Borton.

Leicester aged ram.—First prize, £15, G. H. Sunday, Holme Pierrepont; second of £7, J. Borton; third of £3, G. Turner, jun., Alexton Hall, Uppingham. Commended: J. Borton.

Leicester shearling gimmers.—First prize, £20, S. Wiley, Brandsby; second of £10, T. H. Hutchinson, Manor House, Catterick; third of £5, J. Borton. Commended: E. Riley, Kipling Cotes Farm, Beverley.

LINCOLNS.

Shearling ram.—First prize, £15, R. Wright, Nocton Heath, Lincoln; second of £7, R. Wright; third of £3, C. Lister, Coleby Lodge, Lincoln. Highly commended: R. Wright.

Lincoln aged ram.—First prize, £10, Messrs. Dudding; second of £5, T. Cartwright, Dunstan Pillar, Lincoln.

Lincoln shearing gimmer.—First prize, £10, T. Cartwright; second of £5, T. Cartwright.

SHROPSHIRE DOWNS.

Shearing ram.—First prize, £15, Lord Chesham, Latimer, Chesham; second of £7, Lord Chesham; third of £3, W. Baker, Moor Barns, Atherstone.

Shropshire Down aged ram.—First prize, £10, W. Baker; second of £5, Lord Wenlock, Escrick Park.

A silver goblet, value £5, for the best ram to Lord Chesham. Shropshire Down shearing gimmers.—First prize, £10, Lord Chesham; second of £5, T. Horton, Harnage Grange, Shrewsbury.

MOUNTAIN OR BLACK-FACED.

Shearing ram.—First prize, £10, J. M. Green, Black Hill, Keighley; second of £5, J. Peel, Knowlmere, Clitheroe.

Mountain aged ram.—First prize, £7, J. Peel; second of £3, J. Peel.

Mountain ewes.—First prize, £7, J. Peel; second of £3, J. Peel.

PIGS.

Twelve months old and upwards.

Boar of large breed.—First prize, £5, P. Eden, Cross Lane, Salford; second of £2, R. E. Duckering and Son, Northorpe, Kirton Lindsey; third of £1, R. E. Duckering and Son. Highly commended: W. Lister, Armley, Leeds.

Sow, large breed.—First prize, £5, R. E. Duckering and Son; second of £2, R. E. Duckering and Son; third of £1, W. Hatton, Addington, Leeds.

Boar, small breed.—First prize, £5, R. E. Duckering and Son; second of £2, H. Nield, The Grange, Worsley, Manchester; third of £1, P. Eden. Highly commended: G. Mangles, Givendale, Ripon.

Sow, small breed.—First prize, £5, W. Hatton; second of £2, T. Nicholson, York. Highly commended: Viscount Galway, M.P.

Boar, black or Berkshire breed.—First prize, £5, F. Walton; second of £2, West Riding Asylum, Wakefield; third of £1, H. Crossley, Broomfield, Halifax.

Sow, black or Berkshire breed.—First prize, £5, R. E. Duckering and Son; second of £2, West Riding Asylum; third of £1, H. Crossley. The class commended.

Boars of any breed not qualified to compete in previous classes.—First prize, £5, J. E. Fox, Great Horton, Bradford; second of £2, S. Appleby, Armley; third of £1, C. Roberts, Wakefield.

Sows of any breed not qualified to compete in previous classes.—First prize, £5, P. Eden, Salford; second of £2, J. C. Taylor, Outlands; third of £1, R. E. Duckering and Son. Highly commended: W. Hatton, Leeds.

Pig, not exceeding twelve months old.—First prize, £3, G. Chapman, Seamer; second, £1, R. E. Duckering and Son, Kirton Lindsey. Commended: C. W. Graham, Leeds.

Sow, large breed.—First prize, £3, P. Eden; second, £1, R. E. Duckering. Commended: F. Walton, Halifax.

Boar, small breed.—First prize, £3, P. Eden; second, £1, Viscount Galway, M.P., Serlby Hall, Bawtry. Highly commended: J. Umpleby, Guiseley.

Sow, small breed.—First prize, £3, C. R. N. Beswicke-Royds, Littleborough; second, £1, Crawshaw and Blakeley, Headfield, Dewsbury. Highly commended: W. Greetham. The class commended.

Boars, black or Berkshire breed.—Prize, £3, G. Knowlson, Thormanby, Thirsk.

Sow, black or Berkshire breed.—First prize, £3, and second, £1, J. Oldroyd, Fixby Park, Huddersfield.

Pen of three store pigs, of any breed, from four to nine months old.—First prize, £3, J. Bullock, Bradford; second, £1, West Riding Asylum. Highly commended: W. Routledge, York, and R. E. Duckering. The class commended.

A silver cup, value £10, to P. Eden, for small white (Young Prince), as the best boar in the show.

A silver cup, value £10, for the best sow in the show to Messrs. Duckering, for Berkshire (Black Bess).

HORSES.

Thorough-bred stallion, for getting weight-carrying hunters.—First prize, £30, A. Beaumont, Honley, Huddersfield (Stamper); second, £10, J. Casson, Burgh-by-Sands, Carlisle, (Sincerity); third, £5, W. Moffatt, Kirklington Park, Carlisle, (Laughing Stock).

Coaching stallion.—First prize, £20, W. Laverack, Everthorpe Grange, Brough (Emperor); second, £7, G. Holmes, Bar House, Beverley (Richmond); third, £3, J. Hind, Rowland Hall, Howden (Tramp).

Roadster stallion.—First prize, £20, J. Leake, Drewton, Brough (Lord Derby); second, £7, P. Kirby, North Duffield, Selby (Commander-in-Chief); third, £3, W. Axe, Doncaster (Blaze-away).

Agricultural stallion.—First prize, £20, J. Forshaw, Burley-in-Wharfedale, Leeds (Nonsuch); second, £7, M. Reed, Chester-le-street, Durham (Clydesdale Tom); third, £3, W. Johnson, Hatfield, Doncaster (Active). Commended: M. Strickland, Tadcaster (Lincolnshire).

Hunting brood mare and foal.—First prize, £15, J. T. Robinson, Lecky Palace, Thirsk; second, £7, J. Clark, Beeston, Leeds; third, £3, H. W. Jackson, Wakefield. The class commended.

Coaching brood mare and foal.—First prize, £10, J. Johnson, Brigham, Driffield; second, £5, S. Frank, Brandsly, York.

Roadster brood mare and foal.—First prize, £10, W. Major, Sledmere, York; second, £5, J. Clark, Leeds. Commended: T. Statter, jun., Whitefield, Manchester.

Agricultural brood mare and foal.—First prize, £10, T. Makin, South Millford; second of £5, T. Upton, Tadcaster. Commended: W. Hutchinson, Howden, and W. and R. Jewitt, Howden.

HORSES FOR AGRICULTURAL AND DRAY PURPOSES.

Two years old gelding or filly.—First prize, £7, T. Duckett, Bentley, Doncaster; second of £3, T. Baum, Pontefract. Commended: G. Atkinson, Seaham.

Three years old gelding or filly.—First prize, £8, C. Lister, Lincoln; second of £4, Reed, Chester-le-street, Durham; third of £2, J. Wood, Beeston Royds, Leeds. Commended: S. Barker, Marr, Doncaster.

Four years old and upwards agricultural gelding or filly.—First prize, £15, S. Thompson, Skipwith, Selby; second of £10, C. W. Brierley, Middleton; third of £5, J. Clark, Beeston.

Four years old gelding or mare, suitable for dray purposes.—First prize, £15, C. W. Brierley; second of £7, T. Statter, jun.; third of £3, S. Barker.

COACH HORSES.

Two years old gelding or filly.—First prize, £12, T. Plummer, Birdforth, Easingwold; second of £6, R. Prince, Chapel Haddersley, Selby; third of £3, J. H. Harris, Houndalee, Morpeth.

Three years old coaching gelding.—First prize, £15, J. Thompson, Bishop Burton; second of £7, J. Johnson, Bingham, Driffield; third of £3, T. Plummer.

Three years old coaching filly, £10, W. Wadsworth, Dunnington; second of £5, T. Rennison, Holme-on-Spalding Moor.

ROADSTERS, HACKNEYS, AND PONIES.

Three years old gelding or filly.—First prize, £10, W. Moffat, Kirklington Park, Carlisle; second of £5, T. Shearman, Warnsworth, Doncaster. Commended: J. C. Forth, Featherstone Hall, Pontefract.

Hackney or roadster, of any age or sex, equal to carry 14 stones.—First prize, £10, C. Stephenson, Newcastle-on-Tyne (Fugleman); second of £7, J. Hornsby, Grantham (Beda); third of £4, J. Robson, Malton (Miss Patty).

Hackney or roadster, of any age or sex, equal to carry 12 stones.—First prize, £10, Sir Lionel M. S. Pilkington, Bart., Chevot Park, Wakefield (Marguerite); second, G. Holmes, Bar House, Beverley (Polly); third, G. Burton, Thorpe Wilowby, Selby.

Ponies, any age or sex, not less than 12½ and not exceeding 14½ hands high.—First prize, £8, J. S. Darrel, West Aytton, York; second of £4, W. Hill, Doncaster; third of £2, W. Simpkin, Burton Agnes, Hull. Highly commended: R. Milward, Thurgarton Priory, Southwell. The class commended.

Ponies, any age or sex, not exceeding 12½ hands high.—First prize, £6, F. W. Watkinson, Hull; second of £3, E. Green, Wakefield; third of £1, Crawshaw and Blakeley, Headfield, Dewsbury.

HUNTERS.

Two years old geldings or fillies.—First prize, £12, J. B. Barkworth, Raywell, Brough; second of £6, J. Cattle, Barton-le-Street, Maldon; third of £3, R. Brunton, Marton, Middlesbro'. Commended: T. B. Ireland, Tadcaster.

Three years old hunting gelding.—First prize, £15, Sir G. Cholmley, Bart., Howsham House, York (Dandy); second of £7, S. Wiley, Brandsby, York; third of £3, H. Brunton (Joe Bennett).

Three years old hunting fillies.—First prize, £10, R. Jackson, Normanby, Middlesbro' (Omi); second of £5, Sir G. Cholmley (Carnation). Commended: G. Knowlson, Thormanby, Easingwold (Miss Annie).

Four years old hunting geldings.—First prize, £20, T. H. D. Bayly, Ickwell House, Biggleswade (Borderer); second of £10, E. Paddison, Ingleby, Lincoln; third of £5, J. B. Barkworth (Lothair).

Four years old hunting filly.—First prize, £15, J. Bulman, East Greystone, Gainford (Sally); second of £7, S. B. Robson, Windle Beck, Ganton (Maid of Derwent).

Hunter, gelding or mare, five years old and upwards, and qualified to carry at least twelve stones with hounds.—First prize, the Badsworth Hunt Cup, value 100 guineas, S. J. Wellitt, Tathwell Hall, Louth (Loiterer); second of £50, Sir G. Cholmley (Julius); third of £25, H. Jewison, Raisthorpe (The Knight); fourth of £15, Sir G. Cholmley (Don Juan); fifth of £10, T. H. Foden, Givendale Grange, Ripon (Young

Artillery); sixth of £5, J. B. Booth, Killerby Hall, Catterick (Brian Boru).

WOOL.

Five hogg fleeces, long wool.—First prize, £5, M. Tomlinson, Cowthorpe, Wetherby; second of £3, C. Barroby, Baldersby, Thirsk; third of £2, C. Barroby.

HOUNDS.

Entered Hounds.—Dogs: First prize, £20, The Burton (Striver, Vanquisher, Gallant, and Prompter); second of £10, The Broeklesby (Bentinck, Finder, Royal, and Rampart).

Bitches: First prize, £20, The Burton (Sportive, Heeuba, Bashful, and Tidings); second of £10, The York and Ainsty (Timely, Nosegay, Novelty, and Liberty).

Unentered Hounds.—Dogs: First prize, £10, and second of £5, The York and Ainsty (Beadsman and Damper).

Bitches: First prize, £10, The York and Ainsty (Fair Maid); second of £5, The Burton (Careful).

Stallions.—Prize of £5, The York and Ainsty (Racer).

Brood Bitches.—Prize of £5, The Broeklesby (Gaiety).

At the meeting of the Council the only deputation was from York; and it was decided to hold the meeting in that city in 1871.

THE BATH AND WEST OF ENGLAND SOCIETY, AND SOUTHERN COUNTIES ASSOCIATION.

A meeting of the Council was held at the White Lion Hotel, Bristol, under the presidency of the Earl of Cork and Orrery. There were also present Sir J. T. B. Duckworth, Bart., Hon. and Rev. J. T. Boscawen, Messrs. T. D. Acland, M.P., J. D. Allen, R. G. Badoock, R. Bremridge, R. Brent, C. Bush, R. H. Bush, W. A. Bruce, J. Dav, F. W. Dymond, T. Danger, E. S. Drewe, A. F. Milton Druce, J. T. Davy, M. Farrant, H. Fookes, Jonathan Gray, C. Gordon, J. Hole, H. P. Jones, J. F. Lennard, H. A. F. Luttrell, J. Lush, H. G. Moyses, H. St. John Maule, H. Middleton, T. Phillpotts, J. Ramsden, W. R. Scott, R. J. Spiers, R. Trood, E. W. Williams, H. Williams, H. Spackman (Official Superintendent), W. Smith (Official Accountant), and J. Goodwin (Secretary and Editor).

Mr. HERBERT WILLIAMS, as chairman of the Finance Committee, took the opportunity of congratulating the members on the very satisfactory position of the Society, and the success which had attended its operations during the past year. He concluded by moving that £1,500 additional stock be purchased in the name of the Trustees, thus raising the funded capital to 47,000. This proposition was seconded by Mr. C. BUSH, and carried.

The Committee appointed to inquire whether any saving could be effected in the cost of producing the Journal, having, at a former meeting, recommended that only one Journal should be published in the year, now further reported that, after an interview with Mr. Dorrell, representing the firm of Messrs. Clowes and Son, the Society's printers, they had arrived at the conclusion that it was impossible to effect any sensible reduction in the cost per sheet upon the present number of copies printed. With reference to the expense of illustrations, they reported that this might, of course, be cut down, but they feared that a reduction in the attractiveness of the Journal might operate prejudicially on the interests of the Society. This head of expenditure would, however, be closely watched by the Journal Committee. The report was received and adopted. Colonel Luttrell and Mr. Herbert Williams were added to the Journal Committee.

The Committees and Stewards of the several departments at the Taunton Meeting were nominated for re-appointment for the current year, with the addition of the name of Mr. C. Edwards to the Finance Committee; Mr. Milton Druce to

the Stock Prize Sheet Committee; Mr. Grenfell to the Implement Regulations Committee; and Sir John Duckworth, Colonel Lennard, Mr. Jonathan Gray, Mr. Ramsden, and Mr. Gordon to the Railway Arrangements Committee. The Arts Committee was also re-appointed; Dr. Scott and Mr. E. W. Williams being nominated as stewards of No. 1 section, and Mr. John Daw and Mr. Ramsden as stewards of No. 2 section.

The constitution of the Judges Selection Committee led to a discussion which ended in the affirmation of the principle that no one being himself a breeder of stock, or having intimate connections with any such breeder, is eligible to serve on this committee where the strictest impartiality and secrecy are absolutely indispensable as a guarantee of good faith to exhibitors and the public.

GUILDFORD MEETING, 1871.—For this meeting grants of money were taken to enable the several committees to arrange and mature their prize sheets on a scale of greater liberality and completeness than hitherto attempted by the Society. The Guildford Local Committee also announced their intention to offer liberal special prizes.

A proposal by Mr. Gordon, seconded by Dr. Scott, to hold the Council Meetings for the current year at Salisbury, was withdrawn, after a very general expression of opinion that Bristol is the most generally convenient and accessible centre.

The Council unaniously voted a complete set of the Society's Transactions, from the year 1852 to the present time, to the Library of the Taunton and Somerset Institution, in commemoration of the Society's second visit to the town, and of the hearty and cordial reception afforded by the inhabitants.

The following new members were elected:—The Hon. Capt. Hood, M.P., Crickett St. Thomas, Chard; the Hon. H. H. Jolliffe, Heath House, Petersfield; Major-Gen. Charles Riddell, Athenicum Club, London; H. A. Adair, Mountlands, Taunton; T. Bradford, Fleet Street, London; J. Carpenter, Lady Down, Trowbridge; T. Marriott Dodington, Combe, Dulverton; T. Fooks, Totnell Corner, Sherborne; J. Gollidge, Whaddon Grove, Trowbridge; T. Hyatt, Shepton Mallet; W. S. Loder, Bathwick Lodge, Bath; J. Redman, Whaddon, Trowbridge; J. C. Sutton, Shirley, Southampton; T. P. Waltham, Kilton Farm, Bridgwater; R. Warren Childokeford, Blandford.

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

MONTHLY COUNCIL: Wednesday, August 3.—Present, the Earl of Powis, trustee, in the chair; Lord Walsingham, Sir Massey Lopes, Bart., M.P.; Sir A. K. Macdonald, Bart.; Sir Watkin W. Wynn, Bart., M.P.; Mr. Acland, M.P.; Mr. Barnett, Mr. Cantrell, Colonel Challoner, Mr. Davies, Mr. Druce, Mr. Braudreth Gibbs, Mr. Jonas, Colonel Kingscote, M.P.; Mr. Leeds, Mr. Pain, Mr. Randell, Mr. Ransome, Mr. Shuttleworth, Mr. Thompson, Mr. Whitehead, and Dr. Voelcker.

The following new members were elected:—

Bennett, Alfred W., Wharton, Ross.
Compton, Thomas, Fisherton Delamere, Heytesbury.
Crofts, Lieutenant Richard B., R.N., Great Cozens, Ware.
Giles, John, Bradford House, Chaddeley, Corbett, Kidderminster.
Harding, Thos. King, Marden Bradley, Bath.
Hill, John, Severnstoke, Worcester.
Hope, Thos. R. Henfry, Rhyll.
Jackson, George, Tattenhall Hall, Tattenhall, Chester.
Jeyes, Francis C., Buxworth, Northamptonshire.
Kynnersley, C. T. Sneyd, High Fields, Uttoxeter.
Laurence, Wm., Brockworth Park, Gloucester.
Martin, Joseph, Highfield House, Littleport.
Middleditch, E. Taylor, Blansdon House, Highworth.
Noek, Charles, Norton, Shifnal.
Pickering, James, Whitby, Chester.
Riddell, Major-General Charles J. B., Oaklands, Chudleigh, Devon.
Robinson, Wm. Wembdon, Bridgwater.
Scott, Louis G., 79, Eaton Square, S.W.
Snow, Thomas Owen, Lack Hall, Chester.
Stanton, Rev. J. John, Lovington Vicarage, Bath.
Swinnerton, Wm. Weston, Styvechall Grange, Coventry.
Torr, Thos. Joseph, Dunmaer House, Basingstoke.

The following recommendations of special Councils held in the showyard were unanimously adopted:—

- (1.) That as only £3 had been awarded by the judges in Section IX. Class 3, the remaining amount of £7 be specially given for churms adapted to small occupations.
- (2.) That a third prize of £25 be given to Mr. R. Craddock, for the reserve number and highly commended farm occupied by him.
- (3.) That the country meeting for 1871 should be held in the week commencing July 10, instead of that beginning July 17.

FINANCE.—Colonel Kingscote, M.P., presented the report, from which it appeared that the Secretary's receipts during the past month had been examined by the committee, and by Messrs. Quilter, Ball & Co., the Society's accountants, and had been found correct. The balance in the hands of the bankers on July 31 was £7,608 7s. 4d., the sum of £3,800 remaining on deposit. Cheques to the amount of £9,176 17s. 1d. were ordered to be drawn. The committee recommended that the Secretary be authorised to transfer £2,000 from the deposit to the current account; and that the office be closed at 2 p.m. on Saturdays from after the first Council meeting following the country meeting, until the April Council meeting. The committee also reported that on the appeal against the parish rating of the Society's house, the assessment was reduced from £280 to £160 per annum.—This report was adopted.

JOURNAL.—Mr. Thompson (chairman) reported that the judges had withheld the prize offered for the best essay on the preparation, preservation, and use of sprouted grain as food for horses, cattle, and sheep, based on practical experience, the candidates not having com-

plied with the conditions on which the prize was offered. It was also reported that the judges had awarded the prize offered for the best description of the most improved form of kiln for burning lime for agricultural purposes to the writer of the essay bearing the motto "Improved Perpetual." This report having been adopted, the chairman announced that the prize essay had been written by Mr. Charles Turner, C.E., of Maguolia Cottage, Shirley, near Southampton.

IMPLEMENT.—Mr. B. T. Braudreth Gibbs reported that the committee had discussed the conditions to be added to the Wolverhampton prize-sheet, and that they recommended that the secretary be instructed to draw up a draft of those agreed upon, and to circulate a preliminary proof amongst the exhibitors of steam-cultivating machinery, inviting suggestions thereon, so that a complete prize-sheet may be published in November. This report was adopted, subject to a proposed regulation prohibiting exhibitors from entering duplicate implements being postponed for further consideration.

GENERAL OXFORD.—Lord Walsingham reported that the committee had examined the Oxford accounts, and recommended them for payment. This report was adopted.

GENERAL WOLVERHAMPTON.—Mr. D. R. Davies presented the report of the committee, recommending that Mr. R. H. Masfen be requested to accept the office of steward of forage for the Wolverhampton meeting, and that the secretary be instructed to supply him with the particulars of quantities likely to be required. It was also reported that an agreement and plan had been arranged between the mayor and town-clerk of Wolverhampton, on behalf of the corporation, and the honorary director and the secretary on behalf of the Society; and the committee recommended that the common seal of the Society and the signature of the secretary be affixed to the said agreement. This report was adopted.

SHOWYARD CONTRACTS.—Mr. C. Randell reported the recommendation of the committee that so much of the plan of the Wolverhampton showyard recommended by Mr. Gibbs, as shows the land required and the situation of the entrances and implement sheds, be adopted, leaving the completion of the plan to be afterwards settled by the honorary director and the surveyor. The surveyor's report on the showyard works at Oxford had been received, and the committee recommended the payment of the fourth instalment of the contractor's account, the sum due for additions to the permanent plant, and the surveyor's account for travelling expenses and salary. The committee submitted the following comparative statement of the cost of showyard works, and of the sums paid by exhibitors at the last three country meetings of the Society:—

	Cost of Showyard Works.	Paid by Exhibitors.
Leicester, 1868.....	£1,290	£2,041
Manchester, 1869.....	5,476	2,724
Oxford, 1870.....	5,396	2,774

—showing that the cost of showyard works at each place bears very nearly the same proportion to the amount paid by the exhibitors. An application having been made to the surveyor to furnish to the "Société des Agriculteurs de France" plans of the Royal Agricultural Society's showyard works, the committee recommended that the Secretary be requested to ascertain whether they are asked for on behalf of the Society, or for the use of intending

contractors. In the former case, the committee recommended that such plans be furnished at the cost of the Royal Agricultural Society. This report was adopted, after a conversation on the position of the entrance to the Wolverhampton showyard, Mr. Thompson being in favour of a central entrance, as at Oxford, and considering this the general opinion; while Mr. Randell maintained that the position of the entrances at Oxford entailed a loss to implement exhibitors, and was adopted in that case only because the form of the ground rendered it a necessity. The Secretary was authorised to sign and seal an agreement with the Corporation of Wolverhampton, and a supplementary agreement with the Society's contractor.

Mr. C. WHITEHEAD moved—"That prizes be offered for implements and machinery used in the cultivation and management of hops." In support of his motion he urged the agricultural and economic importance of hop cultivation, and stated that while the cost of cultivation had formerly been estimated at more than £30 per acre, recent improvements in implements and machinery had reduced this cost to the extent of £5 or £6 per acre; he therefore expected that the stimulus which would be given by the Society offering prizes for implements and machinery used in the cultivation and management of hops would still further reduce the cost of production, and enable English growers to compete on more even terms with those foreign and colonial hop farmers who had the great advantages of cheaper labour and more favourable climate. Amongst the implements for which prizes might be offered by the Society he mentioned a plough or digging machine which would supersede the hand labour with the "spud," at present the general but costly method of turning over the soil, and would ameliorate the physical condition of the labourers in the hop growing counties, which are at present notorious for the labouring men being prematurely bent in consequence of this "spud" labour. As specimens of other *desiderata*, he mentioned a machine for packing hops, and an adaptation of steam for drying them, and he concluded by stating that in the event of the Council accepting his motion, and referring the details to the implement committee, he would have pleasure in rendering any assistance in his power. The motion having been seconded by Mr. T. Pain, who urged that the subject was too important for delay, a discussion ensued in which Lord Walsingham and Mr. Shuttleworth suggested that the details should be left to the implement committee, Mr. Ransome preferring

that the subject should be dealt with as a whole irrespective of the Society's classification. Finally, the principle of Mr. Whitehead's motion having been adopted, it was referred, on the suggestion of the Chairman, to the implement committee to consider what prizes for implements and machinery for the cultivation of hops can be inserted in the Society's prize-lists.

Mr. T. Pain, having called the attention of the Council to the implement entries at Oxford which had no reference whatever to agriculture, and also to the number of duplicate entries, a discussion ensued, in which Lord Walsingham, Mr. Thompson, and Mr. Randell urged that by prohibiting the exhibition of duplicate articles, the inconvenience would be removed, without drawing too hard a line. Mr. Ransome and Mr. Shuttleworth suggested that so large a subject should be allowed to stand over for more ample discussion in November; while Lord Powis, Colonel Challoner, and other members of Council, advocated the admission into the showyard of certain articles not strictly agricultural, such as carriages, &c., for the convenience of farmers and others living in sequestered parts of the country. The distinction between the two portions of the subject having been insisted upon by the Chairman, who agreed with a suggestion from Lord Walsingham that, although it might be advisable to prohibit the exhibition of duplicates, an exception should be made in favour of implements belonging to the classes for trial, in each year, it was finally moved by Mr. Thompson, seconded by Mr. Ransome, and carried unanimously, "That the implement committee be requested to consider and report in November, whether any and what restrictions should in future be imposed on the exhibition of duplicate implements, especially by agents, and on the exhibition of miscellaneous articles."

On the motion of Lord Walsingham, seconded by Mr. Thompson, it was unanimously resolved that the thanks of the Council be specially conveyed to Mr. J. Mason, late High Sheriff of Oxfordshire, for his liberality in offering the prize of a silver cup, value 100 guineas, for the best-managed farm in the Oxford district.

Protests from exhibitors of live stock were reported upon by the senior steward, and the Secretary was instructed to communicate with the several persons concerned, in accordance with the terms of the report.

The Council, having granted the usual leave of absence so the Secretary and clerks, adjourned over the recess until Wednesday, November 2.

ROYAL AGRICULTURAL SOCIETY OF IRELAND.

MEETING AT BALLINASLOE.

There is something particularly satisfactory in the continued prosperity of the Societies of Agriculture. There is now scarcely an institution of the kind, but that with anything like proper management is flourishing exceedingly. And yet it is not so long since that many of these associations were in a very languishing condition. They seemed chiefly to rely upon as directly to court a certain unwholesome sort of patronage. They were overlaid by the great people of the district, and if the Duke did not come to the dinner they stared ruin in the face. By this time there is often enough no dinner to go to, and if his Grace visits the show he walks about very much like any other man, handles the Shorthorns, criticises the horse judges, and possibly ventures to buy a Southdown shearling on his own account. Some twenty years since the exception was to attend the ploughing

match or the stock show, and the rule to be just in time for "the banquet," where sundry long orations were delivered, at which country-folks cheered and townspeople laughed. The leading societies of the kingdom, like the Royal, the Yorkshire, and the West of England, have gradually abandoned such entertainments, and yet they have never been doing so well. The reason of this is sufficiently plain. The actual business of such occasions has come more and more to be encouraged, the practical element has been developed, and taking five hundred pounds at the gates does a deal more good than would a donation of double the amount from the Lord-Lieutenant of the county.

Nevertheless, there is at this very moment one such national institution whose case comes in marked contrast to that of its fellows. The Royal Agricultural Society o

Ireland is evidently in a bad way, as perhaps the worst show ever held under its auspices has just been celebrated at Ballinasloe. The entries were small, and, with an exception or so, the sample indifferent. On the first blush it would look as if the uncertainty engendered by the new Land Bill had put the farmers out of heart, and that in such a state of transition they had resolved to do as little as possible. But it is not so. The stock, cattle, sheep, and pigs are not only increasing in numbers, but rising in reputation. Shorthorn fanciers will tell you that they have some of our best strains of blood in Ireland, and that the effect of this is already apparent. At the annual banquet the other evening—for they still hold to such festivals in Ireland—the Lord Lieutenant said, “I would wish to call attention to the stock of this country, which has had such great reputation of recent years, which produces such wealth to the country, and which is so eagerly sought for on the other side of the Irish Channel. I believe that the stock in Ireland has been greatly increasing, and consequently the wealth of the country, in regard to stock, has also increased very considerably during the past few years. I am not able to give you many statistics, but I can give you a few figures. With regard to the stock of this country during the last year, I find that the value of stock in Ireland has increased over the value in 1869 by nearly half a million sterling. If we go into the subject further, we shall find that the number of cattle increased by nearly 67,000 since last year, and what is still more remarkable is, the number of pigs in the country, an important item to the poor farmer, has increased by about 367,468.” And yet, in the face of this, the national Agricultural Society of the sister kingdom is fast going to the bad. With the stock increasing so extensively, the Society can get up no show of stock. The costly Shorthorn, the much-lauded Roscommon sheep, and that poor man's friend, the pig, all alike hold aloof from a meeting the object of which is to do them and their breeders every proper honour.

If not overlaid by great people, the management here is made to depend too much upon the amateur element. The practical farmer is, as a rule, carefully kept at arm's-length. He is taught to feel that he has at best only an outside interest in the proceedings, and he has become indifferent accordingly. The Royal Agricultural Society of England was at one period fast drifting into the same state of things; when the fact of a tenant farmer offering an opinion at a general meeting was regarded as an impertinence, and the proposal to put a farmer on the council as an act of rebellion. But a better spirit prevailed, and the wholesome constitution of the Society was recovered. Practical men, that is men who live by their business, now have quite their fair share and weight in all that is done in Hanover Square, while none of course are of more service when on duty at the show. In Ireland there would seem to be a very legion of Stewards, who are very active in getting into each other's way, if they do not accomplish much more. And this leads on the point as to how strong a proportion of these gentlemen in office are farmers, and how many are mere amateurs, agents, or otherwise? The same question of course would apply to the organisation of the Council, and this we ask in mere ignorance, as our experience has been rather of the meetings than the internal arrangements of the Society. If, however, as we are inclined to suspect, the direction has been confined almost exclusively to the gentlemen and their people, there can be little wonder that the Society has advanced so slowly. Every man likes to have something of a voice and a hand in the management of his own business, and here in England we have gradually come to see that the working of an agricultural association is especially the

business of agriculturists. When his Excellency turns to his own county he will remember that the Northamptonshire Agricultural Society is mainly under the management of the Northamptonshire farmers. The working committee is a committee of working men, who are always ready to welcome the landlords to their councils, but who are by no means prepared to stand aside while others do their work for them. Nay, to the credit of the country-gentlemen, this is never attempted. They pay their subscriptions; many of them make entries of stock, and some occasionally hold office on the ground, but in the Lord Lieutenant's own home the occupiers rather than the owners are responsible for the success of their Agricultural Society.

“I believe that the Land Act will set at rest the land agitation in Ireland. It is my honest conviction that good landlords will not be seriously affected by the measure; that their influence will not be diminished, but rather increased; and that the influence of their order will be much greater in consequence of the checks and restrictions which will now be placed on those whose conduct towards the tenants has hitherto lowered them in general estimation.” So says her Majesty's representative when addressing a company of agriculturists; and at such an era in the history of the country it would be very lamentable, as it would be a very bad sign if such an institution as the national Agricultural Society were suffered to fall through. It would seem to argue that the landlords and tenants in Ireland could not work together for one common object, that they had no confidence in, and no desire for communion one with the other. And yet the fortunes of the Society are coming very much to this. Ballinasloe is not an exceptionally bad show, as such an accident might happen anywhere; but for years these meetings have been gradually but certainly declining in interest and influence. The presence, in fact, of the Lord-Lieutenant has alone of late served to give any importance to the occasion; while however able a man like Lord Spencer may deport himself, however sound and encouraging may be the tone of his remarks, it must still be uphill work to compliment a country through the agency of an institution, which his well-practiced eye would tell him was so unmistakable a failure.

The sheds and fittings-up were admirable, and the best that the Society ever had; the area fenced in containing about eight acres; but despite the puff preliminary, this was about the worst show in point of numbers of Shorthorns ever known. It is now exactly twenty-five years since the Society held its show here (in 1845), when eighty-nine Shorthorns of all ages were shown; while the entry for the year 1870 was but fifty-six, with five of these making no appearance, so that but just over fifty were brought forward. Indeed, had not Mr. Gauly, the Irish cattle salesmaster and auctioneer, have come to the rescue, and brought in no less than seventeen for the several sections, the Irish Royal Shorthorn Show would have dwindled down to thirty-four. Such well-known breeders as Messrs. Barns, Pratt, Tynte, Welsted, Jones, Woods, Groves, and a host of others, made no sign, and not a single animal from England or Scotland was entered, notwithstanding that Ballinasloe lies in the centre of a fine grazing and arable country, and is approachable from every direction, by both railway and canal. There must be something radically wrong in the conduct of Irish agricultural matters, as there would seem to be too many non-practical honorary officials flourishing about, decorated with several coloured ribbons, and too few working men. In fact, an official prize list is never even prepared, and the press must get it as best they may. The managing men do not seem to know their own minds, and there are so many conflicting interests to reconcile, that any attempt at arranging matters in a busi-

ness-like manner is paralysed. Early in last year it was arranged to hold this season's show in Dublin; but in the migratory arrangements the right fell to the province of Connaught, and by great exertion the decision was rescinded. The sooner that the Society adopts some more steady course the better, for it is perfectly apparent now that its days are numbered, unless the Royal Agricultural and Royal Dublin Societies amalgamate, for the jealousies and eliquism that prevail will end most disastrously to one or the other, and the country be thrown back an age in its most vital function.

In the old Shorthorn bull section, Mr. Chaloner's Sovereign and Mr. Smith's Lictor met again with the old result: they have been so repeatedly before the public that it is needless to recapitulate their separate points, and we need only say that Sovereign took on this occasion the Purdon Challenge Cup. In the next section Mr. Smith's Lictor holds the first position, as gained at the Dublin Royal Spring Meeting; but Mr. Cosby's Colonel Frank and Mr. Moffet's Dey of Algiers change places since that meeting, and Major D'Arcy's St. Valentine takes a new prize, the Bristol Cup, to be competed for locally. Nine yearling bulls formed the next section; but the judges made a grievous mistake in putting Mr. Reynell's Prince Arthur Patrick first, as he is a weak-backed bull with bad crops, while N. M. Archall's unplaced Sam was much better. The baby bulls were three, of which Mr. Massy's Baronet, put first, and Mr. Ganly's unplaced Prince of Rosedale have good pedigrees, and are nice things enough; but Mr. Cosby gives no pedigree with his King Herod. In the aged cows Mr. Ganly shows no less than five, taking all the honours. His first-placed cow Leah, with a good dash of Booth blood in her, is a fine, roomy, wealthy cow, and possesses much sweetness. There were but two for three-year-old heifer honours, both entered Mr. Ganly's, who had a walk-over. They were by British Flag, and, very good, but shown in poor condition. In the two-year-old section for heifers Mr. Bolton's Ally Gwynne, the commended at Oxford, and the first at the Royal Dublin Spring Meeting was put justly first, though Mr. Ganly's Queen of Denmark, from the Straffan pastures, a sweet handler and of prime quality, made a capital second. The yearling heifers were remarkably good, as amongst them were Mr. Meadows' splendid heifer Chaumontel, now Mr. Bolton's, and Mr. Smith's lovely Gertrude, which caused the judges at the Dublin Spring Meeting such a lengthened discussion as to their relative merits; but they met again, only with the same result. Mr. Bolton had another beauty, Glossy's Woodbine, now highly commended, and that, with Chaumontel, took the Purdon Challenge Cup for the best two yearling heifers. The commendations were Mr. Massy's Lady James and Mr. Smith's Victoria Albert. The heifer calves were both entered by Mr. Ganly, and very neat things they are, as more than likely they will be heard of again.

The Herefords, as usual at Irish shows, were few—but one bull, three cows, and two heifers. The Devons mustered stronger, with three bulls, five cows, and three heifers, while seven polled Angus and Galloways were classed together. As a semi-mountain breed, the polled Angus stands pre-eminent in Ireland, as Mr. Owen finds to his profit, and a finer bull than his imported Crathie Joek 2nd, would be hard to find, while his fine cow Maggie is scarcely inferior, though bred in Ireland. The other breeds exhibited were West Highlands, four, a profitable race; Ayrshires, seven; Kerries, eight; and miscellaneous breeds, seven. The tenant class, valued for poor rate under £100 per annum where some had the pluck to come from the north and Tipperary, exhibited ten very superior cows.

Eight thoroughbred stallions were paraded for the Croker Challenge Cup, which went to Mr. St. George, Tyrone House, for Tom King; but four entered for the four-year-old gelding or filly prizes, to be up to at least 13 stone; some very good and sound breeding mares, not thorough bred, were shown among the nine entered, two of which were commended along with the two prizes. Some really good Clydesdale stallions and draught mares finished the show of horses, which it was expected would have been much better and more numerous than it turned out to be.

Amongst other disappointments connected with the Irish Royal meeting of 1870, must be classed the show of sheep, which for months past was given out as to be the best ever held by that Society. The pure Leicester rams were well represented by Mr. Seymour Mowbray, Allan Pollok, William Owen, and William R. Meade, the latter having had by far the greater number. Mr. Marris, from Lincolnshire, though entered for several in most of the sections, did not show one. Twelve shearling and ten aged rams filled the pens in this class. The ewes were poorly represented, there being but three pens of shearlings and three pens of lamb ewes in the yard. The Border Leicesters numbered but seven shearlings and three aged rams, one pen of shearlings, and three pens of lamb ewes; the rams for the greater part were good, and Mr. L. Bland's four-shear particularly so; in fact, he is a magnificent sheep. But the greatest disappointment was in the numbers of Rosecommon sheep shown, after so much talk being made about them; probably the breeders are keeping up their strength for the Great Horse and Sheep Show, about to be held by the Dublin Society. However, though there was a paucity in numbers, the quality was good, and it appears that all the most noted breeders were represented; such as Messrs. J. Blood Smith, County Limerick; the two Cottons, Longford House; R. Flynn, Tuls; Glancy, Skapard; Roberts, Farr; David Lynch, Springfield; and Allan Pollok, Lismanny; all of County Rosecommon. There were ten each of shearling and aged rams, with two pens of shearling ewes, and four of lambs exhibited. Of other long-wooled sheep, the most extensive exhibitor was Mr. Beale Brown, who had six shearling, two aged rams, and one pen of shearling Cotswold ewes, with which he took prizes. The Shropshire Downes were weak in numbers, and Mr. C. W. Hamilton made sure of all the money prizes and a medal.

The shows of pigs and poultry were most excellent, and the best features of the meeting.

The dairy produce was very good, and the flax was also good, but lacked sufficient competition.

The implements and machinery occupied about fifty stands. The English exhibitors were—Bradford Manchester and London; Garrett, Leiston, Suffolk; Reading Iron Works, Reading; Hodgkin, West Derby, Liverpool; De Leon and Andre, London; W. A. Wood, London; Dodge, London; Richmonds and Norton, Liverpool; Teighe and Smith, London; Cambridge, Bristol; Ashby, Jeffery, and Luke, Stamford; Samuelson, Banbury; Hilton, Liverpool; Eastwood, Blackburn; Gibbs and Co., London; Waide, Leeds. From Scotland—Gordon and Co., Ayr; Gray, Uddingston. From France—Collyer. Irish—R. W. Morgan, Dublin; Goulding, Cork and Dublin; Kennan, Dublin; Ferrier, Athlone; McKenzie and Sons, Cork, Dublin, and Belfast; Barré, Dublin; Madden, Ballinasloe; Harpur, Ballinasloe; Alexander, Dublin; Jacques, Dublin; Baldwin, Dublin; Brown, Dublin; Gray, Belfast; Askiu, Newtownwards; Martin, Dublin; McMaster, Hodgson, and Co., Dublin; R. Irvine, Athlery; W. Carson and Sons, London and Dublin.

JUDGES.—H. Thornball, N. G. Barthorp, B. Wainman, H. Heywood, J. Pollock, S. Mowbray, E. Rae, G. Huston, W. Richardson, N. Archdall, L. Plunder, T. Harris, J. Pynnter, J. Bogge, J. A. Purdon, R. Reynell, Major D'Arcy, S. Garnett, G. Cueston, H. Pigstock, T. Boad, A. Warburton, M. Staunton, W. Merry, Rev. J. Bradshaw, De C. Kennedick, R. C. Wade, W. Fetherston, H. Greene, and W. Greene.

P R I Z E L I S T .

The Purdon Challenge Cup, value 60 gs., for the best Shorthorn bull calved on or after 1st January, 1865 (won last year by R. Chaloner).—R. Chaloner, of Kingsfort, Kells (Sovereign).

The Purdon Challenge Cup, 60 gs., for the two best Shorthorn heifers (won in 1869 by Wm. Bolton).—Wm. Bolton, The Island, Oulart, county Wexford (Chaumontel and Alley Gwynne).

The Bristol Challenge Cup, for the best bull in the district.—Major D'Arcy, Castlepark (St. Valentine).

The Croker Challenge Cup, value £50, with £20 added, for the best weight-carrying thoroughbred stallion (won last year by F. H. Power).—W. St. George, Tyrone House, Oranmore (Tom King).

The Cork Challenge Cup, value £20, for the best shearing ram (won last year by F. H. Power).—W. Owen, Blessington.

CATTLE.

SHORTHORNS.

Full, calved on or after the 1st January, 1865, and previous to the 1st January, 1868.—First prize, 10 sovs., R. Chaloner, Kingsfort, Moyalty, Meath (Sovereign); second, 5 sovs., E. J. Smith, Islammore, Croom, county Limerick (Lictor).

Bull calved in the year 1868.—First prize, 15 sovs., E. J. Smith, Islammore, Croom, Limerick (The Earl); second, 5 sovs., R. G. Coshy, Stradbally Hall, Queen's County (Colonel Frank).

Bull calved in 1869.—First prize, 15 sovs., R. W. Reynell (Prince Arthur Patrick); second, 5 sovs., N. M. Archdall, Crocknacrieve, Ballinamallard (Sam).

Bull calf, calved in 1870.—First prize, 5 sovs., Hon. J. Massy, Limerick (Baronet); second, 3 sovs., R. Coshy (King Herod).

Cow, in calf or in milk, calved previous to 1st January, 1870.—First prize, 10 sovs., J. Ganly (Leah); second, 5 sovs., J. Ganly (Modesty).

Heifer, in calf or in milk, calved in 1867.—First prize, 10 sovs., J. Ganly (Spring Rose); second, 5 sovs., J. Ganly (Lady Clarina).

Heifer, in calf or in milk, calved in 1868.—First prize, 10 sovs., W. Bolton (Alley Gwynne); second, 5 sovs., J. Ganly (Queen of Denmark).

Heifer, calved in 1869.—First prize, 10 sovs., W. Bolton (Chaumontel); second, 5 sovs., E. J. Smith (Gertrude).

Heifer calf, calved in 1870.—First prize, J. Ganly (The Angel); second, J. Ganly (Leah 2nd).

HEREFORDS, DEVONS, AND POLLED ANGUS.

Hereford bull, calved on or after 1st January, 1865.—Prize 15 sovs., R. W. Reynell.

Hereford cow, in calf or in milk, calved previous to 1st January, 1867.—Prize, Joseph Tuite, Souna and Calleen, Mullingar.

Hereford heifer, calved in 1868 or 1869.—Prize, R. W. Reynell.

Devon bull, calved on or after 1st January, 1865.—Prize, J. Peake.

Devon cow, in calf or in milk, calved previous to 1st Jan., 1867.—Prize, J. Peake.

Devon heifer, calved in 1868 or 1869.—Prize, C. Boyle.

Polled Angus or Galloway bull, calved on or after 1st Jan., 1865.—Prize, 10 sovs., Wm. Owen, Blessington, county Wicklow.

Polled Angus or Galloway cow, in calf or in milk, calved previous to Jan., 1867.—Prize, W. Owen.

Polled Angus or Galloway heifer, calved in 1868 or 1869.—Prize, F. Tyrrell, Donnerbrewer, Londonderry.

OTHER BREEDS.

West Highland cow, in calf or in milk, calved previous to 1st Jan., 1867.—Prize, A. Pollok.

West Highland heifer, calved in 1868 or 1869.—Prize, A. Pollok.

Ayrshire bull, calved on or after 1st January, 1865.—Prize, Patton.

Ayrshire cow, in calf or in milk, calved previous to 1st January, 1867.—Prize, D. Patton.

Ayrshire heifer, calved in 1868 or 1869.—Prize, David Patton.

Kerry Bull, calved on or after 1st January, 1865.—Prize, Captain Bayley.

Kerry cow, in calf or in milk, calved previous to 1st Jan., 1867.—Prize, J. T. Collins, Ballinasloe.

Kerry heifer, calved in 1868 or 1869.—Prize, Captain Bayley.

Cow of any breed, in calf or milk, calved previous to 1st Jan., 1867, not qualified to compete in foregoing sections.—Prize, J. Ganly, Hillsboro', Lucan.

Heifer of any breed, calved in 1868.—Prize, F. Trevor, Beech Hill, Donnybrook.

Cow, in calf or in milk.—First prize, D. Patton, Trynanny; second, W. T. D. W. Wood, Lisduff, Killimore.

Heifer, in calf or in milk, calved in 1867.—Prize, D. Patton.

Heifer calved in 1868 or 1869.—First and second prizes, P. Quin.

HORSES.

Croker Challenge Cup, value 50 sovs., with 20 sovs. added, weight-carrying thoroughbred stallion.—Prize, W. St. George, Tyrone House, Oranmore (Tom King).

Gelding or filly suited for hunting purposes, and up to at least 13 stone, foaled on or after 1st January, 1866.—First prize, 10 sovs., A. Pollok; second, 5 sovs., Major Seymour.

Brood mare, not thoroughbred, in foal, or having a foal at foot, or having reared a foal in 1870.—First prize, 10 sovs., T. Glancy, Frenchlawn, Ballintubber, Castlerca; second, 5 sovs., R. Bodkui, Annagh, Co. Galway.

Gelding or filly, suited for coaching purposes, foaled on or after 1st January, 1866.—First prize, 10 sovs., A. Pollok; second, 5 sovs., R. Bodkui.

AGRICULTURAL HORSES.

Stallion of any breed, for agricultural purposes, foaled on or the 1st of January, 1863, and previous to the 1st Jan., 1867.—Prize, 20 sovs., W. G. Benner, Tralee.

Stallion, foaled on or after the 1st January, 1867.—Prize, 10 sovs., R. Kerr.

Draught mare, in foal, or with foal at her foot, or having reared a foal in the year 1870.—First prize, 10 sovs., S. R. Kerr, Rathmoyle, Edenderry; second, 5 sovs., A. Pollok.

Draught gelding or filly, foaled on or after 1st Jan., 1867.—First prize, Sylvester Kerr, Eyrecourt, Ballinasloe; second, A. Pollok.

SHEEP.

LEICESTERS.

Shearling ram.—First prize, 10 sovs., W. Owen; second, 5 sovs., W. R. Meade.

Ram of any other age.—First and second prizes, W. Owen. Five shearing ewes.—First prize, Sir A. Walsh, Bart.; second, S. Mowbray.

Five ewe lambs.—Prize, Sir A. Walsh, Bart.

BORDER LEICESTERS.

Shearling ram.—First prize, 10 sovs., J. Pedder, Furlong, D'Loughtane; second, 5 sovs., A. Pollok; third, medal, John Pedder, Furlong.

Ram of any age.—First and second prizes, L. H. Bland, Q. C.

Five shearing ewes.—Prize, A. Pollok.

ROSCOMMON SHEEP.

Shearling ram.—First prize, 10 sovs., T. Roberts; second, 5 sovs., R. Flynn; third, medal, R. Flynn.

Ram of any age.—First prize, J. B. Smith; second, R. Flynn; third, T. Roberts.

Five shearing ewes.—First prize, C. Cotton; second, Wm. Cotton.

Five ewe lambs.—Prize, W. Cotton.

OTHER LONG-WOOLED SHEEP.

Shearling ram.—First prize, T. B. Brown; second, J. B. Smith, third, T. B. Brown.

Ram of any other age.—First and second prizes, T. Beale Brown.

Five shearing ewes.—First prize, T. B. Brown; second, J. B. Smith; third, T. Cornwall.

SHROP OR OTHER DOWNS.

Shearling ram.—First prize, 10 sovs., C. W. Hamilton;

second, 5 sovs., C. W. Hamilton; third, medal, C. W. Hamilton.

Ram of any other age.—First and second prizes, C. W. Hamilton; third, S. Mowbray.

Open for competition to Tenant Farmers whose Poor-Law valuation is under £100 per annum.

Five ewes which have reared lambs in 1870.—First prize, P. Quinn; second, M. Marnane.

Five hogget ewes.—First prize, P. Quinn; second, Pat. Rogers.

PIGS.

COLOURED BREED.

Boar under 18 months old.—First prize, Major D'Arcy; second, J. J. McCabe.

Boar over 18 months and under 36 months old.—First prize, F. Trevor; second, R. G. Cosby.

Breeding sow under 18 months old.—First prize, A. Pollok; second, Lieut.-Colonel C. R. Cliechester.

Breeding sow over 18 months old.—First prize, J. C. Cooper; second, R. W. Reynell.

Three breeding pigs of the same litter, above 4 and not exceeding 8 months old. First prize, Lieutenant-Colonel C. R. Cliechester; second, J. Molloy.

Sow and litter of not less than six pigs.—First prize, Allan Pollok; second, R. G. Cosby.

WHITE BREED.

Boar under 18 months old.—Prize, J. C. Cooper.

Boar over 18 months old.—Prize, J. W. B. Magill.

Breeding sow under 18 months old.—Prize, J. C. Cooper; second, J. W. B. Magill.

Sow and litter of not less than six pigs.—J. Molloy.

Three breeding pigs of the same litter, above 4 and not exceeding 8 months old.—Prize, J. L. Naper.

Open for competition to Tenant Farmers whose Poor-Law valuation is under £100 per annum.

Breeding sow, over six and under twelve months old.—Prize, M. Marnane, Ballyryan West, Tipperary.

Breeding sow, over 18 months, in pig or with litter.—Prize, P. Marnane.

At the banquet at Balinasloe, his Excellency, The LORD LIEUTENANT said: I would wish to call attention to the stock of this country, which has had such great reputation of recent years, which produces such wealth to the country, and which is so eagerly sought for on the other side of the Irish Channel. I believe that the stock in Ireland has been greatly increasing, and consequently the wealth of the country, in regard to stock, has also increased very considerably during the past few years. I am not able to give you many statistics, but I can give you a few figures. With regard to the stock of this country during the last year, I find that the value of stock in Ireland has increased over the value in 1869 by nearly half a million sterling. If we go into the subject further, we shall find that number of cattle increased by nearly 67,000 since last year, and what is still more remarkable is, the number of pigs in the country, an important item to the poor farmer has increased by about 367,465. The exports have not been much greater than former years. Up to May the trade in cattle was very brisk, but that in store cattle was very much diminished, in consequence of the almost unprecedented drought that existed. I believe I am correct in stating that in England, and especially my own neighbourhood of the midland counties, the stock had to be fed with oilcake. As far as the farmers of this country are concerned, I think they should look carefully to this stock, for if I am not much mistaken towards the end of the year there will be a great demand for cattle in Ireland, in consequence of the great number penned up in Germany, for there is annually a great importation of cattle here from Germany, and consequently a vigorous demand will ensue for Irish cattle. The question of the cattle trade is one of great importance to this country. On previous occasions I have been obliged to allude to it, and since I have been here I have had a good deal of business to transact on the subject. I believe that the value of the cattle trade of this country amounts to over £7,000,000 a-year. Last year I referred to the Act which had for its object the prevention of contagious diseases of cattle in England. I then expressed a hope that before another Session had passed the same benefit would be extended to this country. I am glad to say that the same benefit has been extended to this country, and has had the effect of diminishing the amount of disease

in Ireland in store and other stock; but I would also wish to draw attention to an incident which recently occurred in the House of Lords, and in which a noble peer, who represented Scotland, endeavoured to introduce a clause which would have hampered very much the cattle trade of the country. I am happy to say that the Government were able to resist that motion without going into a division. It shows that there is a very strong feeling on the subject of Irish cattle in Great Britain, and I was obliged, when I had the responsibility of answering the objection raised, to undertake on the part of the Government that we should use in this country every possible means to check the spread of disease, and put the cattle traders of this country on the same footing as the rest of the United Kingdom. I most sincerely trust that we shall continue to receive the support which, I am happy to say, we have already received from the farmers and proprietors of this country in carrying the necessary restrictions. After saying this I am glad to be able to state that in comparison with this time last year, the health of the stock in Ireland is exceedingly good, though we had an outbreak of pleuro-pneumonia, we have in existence at the present moment some regulations which were not legally in force in the spring, by means of which we were able to reduce the number of cases of this kind reported to us to 11. That is a satisfactory proof of the condition of stock in Ireland. Having alluded to the stock of the country, I may be permitted to come to a subject still more important. I mean the tillage of the land of this country. I believe that every one who has travelled about in this country will admit that there is very great room for improvement in the manner in which the husbandry of this country is conducted. It is a mistake to suppose that if we advocate an improvement in the cattle of this country, it is our wish to diminish the tillage of the land. If we improve the tillage of the land, there is a great demand for manure and for store cattle. But I believe every one will admit that there is vast room for improvement in this respect. Everyone who goes over the country will see farms, full size, large, and small, in a terribly backward condition, very little manure being put into them by the money of the tenant. We too often find the tenant living in a house which a stranger would hardly think fit for the habitation of his stock. The stranger would think that the tenant farmer was exceedingly poor; but I am assured that that is not the case, and that he is able to have a decent home for himself, his wife, and his children—is really a man who has a large sum of money, which he hides, perhaps, in the thatch of his house. I do not know whether the story is true or not, but I was told it; and I was also informed that in the country banks of Ireland nearly twenty millions of money is deposited belonging entirely to the tenant-farmers of this country. I say that if that money were laid out on the farm it would return the farmer greater interest than it could when lying in the banks. There is really something terribly wrong in this state of things. I know not with what force it is said that the tenant is afraid to show his wealth and prosperity to his landlord. I myself don't feel such want of confidence in the landlords of Ireland. On the last occasion I had the honour of addressing this society I was at Tralee. I then referred to a matter that was beginning to be warmly discussed in the country. I allude to the Land Bill. Towards the close of my speech I called upon my hearers to treat that subject with fairness and impartiality, and especially in a practical spirit. I do not know how far my advice can be said to have been followed during the past winter, but I think I may state that Her Majesty's Government did honestly endeavour to introduce a measure in the spirit in which I then spoke. From being a party question it has now happily passed into the law of the land. I believe that no great question has ever been treated in Parliament with so much generosity, and so little of the bitterness of party feeling. I think we may congratulate ourselves on that result. I think that great praise is due to that numerous class in the country who hold responsible and difficult positions among us, and who, though they may have differed from the course the Government adopted, offered no serious opposition to the proposed measure. I think that the working of the Act will be marked with the same feeling in the future. I believe that the Land Act will set at rest the land agitation in Ireland. It is my honest conviction that good landlords will not be seriously affected by the measure; that their influence will not be diminished, but rather increased; and that

the influence of their order will be much greater in consequence of the checks and restrictions which will now be placed on those whose conduct towards the tenants has hitherto lowered them in general estimation. There is another point to which much allusion has been made. I refer to the probability that much litigation may be incurred by the Land Bill in this country; but I have too high an opinion of the good sense of the landlords and tenants of this country to think anything of the sort. There is no one who is a better counsellor than the lawyer on the proper occasion, but there is no one whom the sensible man will fly further from. Wherever a dispute may arise, I hope there may be very few of them between landlord and tenant, and I sincerely trust and advise that they may try some other course before referring to these gentlemen; but if these disputes are referred to the authorities who have charge of them, I feel convinced that they will discharge their responsible duties with all the ability

with which they have discharged their duties in this country. I trust, however, that it will not be a bad advice to them to forget their lawyer. There is one thing which I hope will come about in consequence of the Land Bill, and that is the removal of the feeling of insecurity from among the small tenants of the country. I believe that it will be in favour of the prosperity of the small tenants, who will look upon it as a source of security. We have had allusion to the farming, the bad horses, and the want of investment of capital, and of other things which the farmers of Ireland have been accustomed to; but I think that when this security has been given, when this Land Bill has been passed, that it will leave those illegally inclined without any excuse. The small farmers who have farms in this country will feel more secure than those in a similar position before, and I trust they will be able to show that they are more industrious and energetic than they have hitherto been.

DARLINGTON, SOUTH DURHAM, AND NORTH YORKSHIRE SHOW.

The twelfth annual exhibition was held in the grounds occupied by Mr. D. Hurworth, in Four Riggs-lane, Darlington. The number of entries was 1,223, which was less than last year. The show of horses, however, was in advance of any former year, exceeding those of 1869 by 55, the falling off being in the other departments of the show.

JUDGES.—Thorough-bred stallions and hunters: N. Clarke, Beamish Park, Fence Houses; J. E. Bennett, Bosworth Grange, Rugby, and J. Furness, Coxhoe. Roadsters and ponies: R. Ridsdale, Cape Farm, Sheriff Hutton; J. Thomas, North Otterington, Northallerton; and W. Carr, Lilling Grange, York. Agricultural stallions, harness, and agricultural horses: W. W. Hawden, Walkerfield, Staindrop; J. Mewburn, Ingleby, Yarm; and J. Outhwaite, Bainesse, Catterick. Dairy produce: Mrs. Wade, Little Burdon, Darlington, and Miss Lawson, Mordon, Ferryhill.

PRIZE LIST. HORSES AND FOALS.

HUNTERS.

Cart foal.—First prize, £2, G. Collard, Trafford Hill, Yarm; second of £1, R. Emmerson, Over Dmsdale.

Filly foal.—First prize, £2, J. Dodsworth, Great Stainton; second of £1, E. Waldy, Barmpton.

Yearling gelding.—First prize, £3, G. Pollard, Trafford Hill, Yarm; second of £1 10s., J. T. Robinson, Lecky Palace, Ashenby, Thirsk.

Yearling filly.—First prize, £3, R. Emmerson; second of £1 10s., W. Clark, Asenby, Thirsk.

Two years old gelding.—First prize, £4, J. Cattle, Barton-le-Street; second of £1 10s., R. F. Trenholme, Butterwick, Sedgfield.

Two years old filly.—First prize, £4, J. T. Robinson; second of £1 10s., J. A. Arnett, Togston, Acklington.

Three years old gelding.—First prize, £4, R. Brunton, Marton, Middlesbrough; second of £1 10s., S. L. Laue, Baldersby Park.

Three years old filly.—First prize, £4, Miss E. A. Aglionby, Eastwaite Lodge, Hawkshead; second of £1 10s., G. Knowlson, Thormanby, Easingwold.

Brood mares, by a thorough-bred horse, having a foal at her foot, or stinted.—First prize, £4, B. Spraggon, Nafferton; second of £1 10s., J. T. Robinson.

ROADSTERS.

Colt foal.—First prize, £2, T. Harrison, Wheldrake; second of £1, H. Pease, Pierremont, Darlington.

Filly foal.—First prize, £2, B. Spraggon; second of £1, F. Greathed, Darlington.

Yearling gelding.—First prize, £4, T. Barnard, Birdforth; second of £1 10s., S. R. C. Ward, Darlington.

Yearling filly.—First prize, £4, the Rev. J. C. Wharton, Gilling; second of £1 10s., J. M. Muggleswick, Durham.

Two years old gelding.—First prize, £4, J. Carter, Marske; second of £1 10s., R. White, Seaton Carew.

Two years old filly.—First prize, £4, E. Waldy, Barmpton; second of £1 10s., R. Emmerson.

Three years old gelding.—First prize, £4, J. S. Stowell, Darlington; second of £1 10s., C. Knowlson, Birdforth.

Three years old filly.—First prize, £4, G. Askwith, Hutton Sessay, Thirsk; second of £1 10s., W. Stead, Cleckheaton.

Brood mare, having a foal at her foot, or stinted.—First prize, £4, G. Leng, Highcliffe, Winston; second of £1 10s., T. Harrison, Wheldrake.

Colt foal for harness.—First prize, £2, M. Willey, Highington; second of £1 10s., M. Robinson, Hawxwell, Bedale.

Filly foal.—First prize, £1 10s., J. W. Botcherby, Middleton St. George; second of 10s., M. Robinson, Hawxwell.

Yearling gelding.—First prize, £3, Mrs. J. Dixon, Cocker-ton; second of £1 10s., J. W. Blair, Darlington.

Yearling filly.—Prize, R. Watson, Stockton-on-Tees.

Two years old gelding.—First prize, £3, G. Liddle, Great Chilton, Ferryhill; second of £1 10s., T. Plummer, Easingwold.

Two years old filly.—First prize, £2, J. C. Johnson, Manfield, Darlington; second of £1, J. Plews, Whitby.

Two years old gelding.—First prize, £3, G. D. Trotter, Upleatham, Marske; second of £1 10s., T. Plummer, Easingwold.

Three years old filly.—First prize, £2, R. Garnett, Northallerton; second of £1, J. Donaldson, Great Ayton, Northallerton.

Brood mare, to have a foal at foot or stinted.—First prize, £4, M. Robinson, Hawxwell; second of £1 10s., R. Watson, Stockton-on-Tees.

Ponies not exceeding 12 hands.—First prize, £2, G. B. Blakey, Newcastle; second of £1, H. Pease, Darlington.

Colt or filly foal for agriculture.—First prize, £2, Lieut.-Col. C. L. Wood, Bishop Auckland; second of £1, M. Tomlinson, Cowthorpe, near Wetherby.

Yearling gelding.—First prize, £3, T. Cumming, Lancaster; second of £1 10s., J. Atkinson, High Beaumont Hill, Darlington.

Yearling filly.—First prize, £3, J. Henderson, South Shields; second of £1 10s., N. Stonehouse and Son, Marske-by-the-Sea.

Two years old gelding.—First prize, £4, G. Atkinson, Seaham; second of £1 10s., J. F. Green, Darlington.

Two years old filly.—First prize, £4, Lieut.-Col. Wood; second of £1 10s., G. F. Stelling, Darlington.

Three years old gelding.—First prize, £4, W. C. Carr, Newcastle-upon-Tyne; second of £1 10s., N. Stonehouse and Son.

Three years old filly.—First prize, £4, M. Reid, Chester-le-Street; second of £1 10s., J. Hopps, Bedale.

Brood mare, to have a foal at foot or stinted.—First prize, £4, G. Atkinson, Hall Farm, Seaham; second of £1 10s., E. and A. N. Pawson, Burley-in-Wharfedale.

Thoroughbred stallion.—Prize, £50, T. Winteringham, Croft, near Darlington (Underhand).

Agricultural stallion.—Prize, £20, J. Forshaw, Burley-in-Warfdale (Non-such).

Four years old mare or gelding, by a thoroughbred horse, for the field.—A cup, value £10, J. Bulman, East Greystones, Gainford; second of £3, G. Lancaster, Morton Grange, Northallerton.

Four years old mare or gelding, roadster.—A silver cup, value £5, T. Sutton, Middleton-one-Row; second of £3, H. R. W. Hart, Dunnington Lodge, York.

Mares or geldings, any age, not exceeding 15½ hands high. A silver cup, value £5 5s., J. H. Harris, Houndales, dales, Morpeth; second of £3, J. S. Stowell, Faverdale House, Darlington.

Mare or gelding that leaped the fences best to the satisfaction of the judges.—First prize, £7, C. Rose, Market Hill, Malton; second of £3, R. Applegarth, Bishop Middleham.

Pony, mare or gelding, not exceeding 14 hands high, that leaped the fences best to the satisfaction of the judges.—Prize, £4, J. S. Stowe, Faverdale House, Darlington.

BUTTER, EGGS, &c.

Fancy butter.—Silver cream jug, value £2, Mrs. Shepherd, Sadberge, Darlington; second of 10s., Miss J. Burnside, Low Bottom House, Cockerton.

Plain butter.—First prize, £2, Mrs. G. T. Stephenson, Whitecross, Darlington; second of 10s., Mrs. Shepherd, Sadberge, Darlington.

DRIFFIELD AND EAST RIDING AGRICULTURAL SOCIETY.

This Society celebrated their sixteenth show of stock and implements in fields adjoining the Beverley-road, Driffield.

The cattle found many admirers, being of pure blood and quality, the bulls of any age comprising the best animals in the East Riding. The cows in calf or milk were no less commendable. Pigs and sheep were limited in extent, but their merit was unmistakable, as they constituted the cream of the district. Horses were the great feature of the show, and in the aggregate they made up a capital display of various breeds.

The following were the judges:

SHORTHORNS, SHEEP, AND PIGS.—E. Hodgkinson, Morton Grange, Retford; J. Angus, Bearn, Stocksfield; and C. Clark, Minskip Lodge, Borough-bridge.

HORSES.—W. Uppley, Bonby, Lincolnshire; J. R. Kirkham, Andley Villa, Caistor; A. L. Maynard, Skinnin Grove, Saltburn-by-the-Sea; Jackson, Everett, Loughton, Gainsbro'; T. Scott, Broom Close, Boroughbridge; and J. Turner, The Grange, Ulechy, Lincolnshire.

PRIZE LIST.

SHORTHORNS.

Bull of any age.—First prize, £10, W. Linton, Sheriff Hutton, York; second of £5, T. Frank, Fylingdales, Whithy.

Cow in calf or milk.—First prize, £5, T. Frank, Fylingdales, Whithy; second of £3, W. Linton, Sheriff Hutton.

Yearling heifer.—First prize, £3, T. Hornby, Flotmanby, Ganton; second of £1, R. H. Robinson, Langtoft Field.

Heifer calf under twelve months old.—First prize, £2, W. Linton; second, H. F. Smith, Sattton, Hull.

Fat ox of any age or breed.—First prize, £2, P. Dunn, Pasture House, Siggleshorpe; second, executors of F. Jordan, Eastburn.

EXTRA STOCK.

First prize, J. Sterriker, Driffield, for half-bred Alderney heifer; second, G. Angus, Beeford Grange, for pure Hereford cow; third, G. Angus, for pure Hereford bull calf.

Best yearling bull.—First prize, silver cup value £10, J. S. Jordan, Emswell (Nestor); second of £3, R. Fisher, Leconfield, Beverley (Royal Prince).

SHEEP.

Shearling ram.—First prize, £7, E. Riley, Beverley; second of £3, E. Riley.

Three shearling rams.—First prize, £5, E. Riley; second of £2, E. Riley.

Aged ram.—First prize, £5, E. Riley; second of £2, J. W. Sharp, Ulrome, Lowthorpe.

Pen of five breeding ewes and lambs.—First prize, £5, S. Staveley, Tibthorpe; second of £2, J. Dickson, Nafferton.

Five shearling wethers.—First prize, £4, W. Brown, Holme-on-Spalding Moor.

Five shearling gimmers.—Prize, a silver tankard, E. Riley.

HORSES.

Thoroughbred stallion, for hunters.—First prize, £6, Mr. Shaw, Market Weighton (Prince Plausible); second of £2, G. Lamplough, Nafferton (Strathern).

Stallion for coach horses.—First prize, £6, W. Jackson, Garton (Helicon); second of £2, W. Haunce, Garton (Garton Groz).

Stallion for roadsters.—First prize, £6, T. Brown, Butterwick (Bay President); second of £2, P. Triffitt, Holme-on-Spalding Moor (Fireaway).

Stallion for agricultural purposes.—First prize, £6, F. Simpkin, Brough (Lord of the Manor); second of £2, R. Marshall, Keyingham (Simon Pure).

Mare and foal for hunting.—First prize, G. C. Jarratt, Harpham; second of £2, W. H. Harrison Broadley, M.P., Welton.

Two years old hunting gelding or filly.—First prize, £3, Sir G. Cholmley.

Yearling hunting gelding or filly.—First prize, £2, Sir G. Cholmley.

Mare and foal for coaching.—First prize, £5, J. Johnson, Brigham.

Coaching mare without a foal.—First prize, £3, J. Stephenson, Winestead.

Three years old coaching gelding.—First prize, £5, J. Johnson; second of £2, W. Coleman, Fraithorpe.

Two years old coaching gelding.—Prize, £3, W. Coleman.

Yearling coaching gelding or filly.—Prize, £2, J. Stephenson, Winestead.

Coaching filly under four years old.—Prize, £4, John T. Marshall, Beeford.

Roadster mare and foal.—Prize, £5, J. Wilde, Holme, York.

Three years roadster nag or mare.—Prize, £3, R. Lowish, Haithorpe.

Mare and foal for agricultural purposes.—Prize, £5, Smith, Bempton.

Three years old gelding or filly for agricultural purposes.—First prize, £4, J. Thompson, South Dalton; second of £2, G. Angus, Beeford Grange.

Two years old gelding or filly for agricultural purposes.—Prize, £3, W. Walker, Scorbro' Deocy.

Yearling gelding or filly for agricultural purposes.—Prize, £2, W. Walker, Scorbro' Deocy.

Pair of horses, of either sex, for agricultural purposes.—Prize, £4, R. Beckett, Watton.

Ladies' pony under 14 hands.—Prize, £3, P. Jordan, Caythorpe, Bridlington.

Pony not exceeding 12 hands.—First prize, £1, J. W. Jordan, North Burton; second, A. Duggleby, Laurel House, Beswick.

EXTRA STOCK:

Roadster, gelding or mare of any age, not less than 14½, and not exceeding 15 hands high.—Prize, a silver cup, value £25, J. Robson, Old Malton.

Hunting mare or gelding, four years old.—Prize, a silver cup, J. B. Barkworth, Raywell, Brough.

Hunting mares or geldings, all ages.—Prize, a silver cup, value £25, H. Jewison, Raithorpe.

Hunting mare or gelding, three years old.—Prize, a silver cup, value £10 10s., Sir G. Cholmley.

Mare or gelding, not exceeding 15 hands 2 inches high.—

Prize, a silver cup, value £10 10s., Capt. G. Boynton, Manthorpe, Barton Agues.

PIGS.

Boar, large breed.—Prize, £2, J. and H. Sugden, Leconfield.
Sow, large breed.—Prize, £2, J. Thompson, Seamer.
Boar, small breed.—Prize, £2, D. Sellers, Driffield.
Sow, small breed.—Prize, £2, D. Sellers.
Store pig, the property of a labourer or working mechanic.—

First prize £2, T. Dawson, Driffield; second of £1, J. Storey, Wuter.

DAIRY PRODUCE.

The best 6 lbs. of butter.—Prize, a silver butter cooler, J. Major, Sledmere Grange.

The best and heaviest 12 hen's eggs.—Prize, a silver egg stand, Mrs. Holmes, Sunderlandwick.

COUNTY CORK AGRICULTURAL SOCIETY—MEETING AT CORK.

In point of numbers and in regard to the quality of some of the classes, the show of the Cork Agricultural Society was a decided improvement. The Shorthorns and Ayrshires were up to the average, as were also the sheep; while the dairy cattle were superior to those exhibited on the last occasion.

JUDGES.

HORSES.—H. Briscoe; Major Browne, Scots Greys; W. Quinn.

SUORTHORNS.—C. Cole Hamilton; A. Warburton.

MISCELLANEOUS.—J. Bogue; G. Hewson.

P R I Z E L I S T.

CATTLE.

SHORTHORNS.

Bull calved previously to January 1st, 1868.—First prize, E. J. Smith, Islamore, Croom; second, F. W. Lowe, Kilsbane, Tipperary.

Bull calved in the year 1868.—First prize, E. J. Smith; second, W. H. Massy, Mount Massy, Macroom.

Bull calved in the year 1869.—First prize, R. J. M. Gumbleton, Curryglass; second, E. J. Smith.

Bull Calf, calved in 1870.—First prize, the Representatives of the late T. Hungerford, Clonakilly; second, E. J. Smith.

Cow, in calf or in milk, of any age.—First prize, R. J. M. Gumbleton; second, Christy Brothers, Fort Union, Adare.

Heifer calved in 1868.—First prize, J. Popham, Bandon; second, Christy Brothers.

Heifer calved in 1869.—First prize, E. J. Smith; second, R. J. M. Gumbleton.

Heifer Calf, calved in 1870.—First prize, E. J. Smith; second, R. Smith, Mallow.

AYRSHIRE.

Bull calved previously to Jan. 1st, 1869.—First prize, H. Jones; second, J. Roche, M.D.

Bull calved on or after Jan. 1st, 1869.—First prize, H. Jones; second, R. Barter, jun.

Cow, in calf or in milk, of any age.—First and second prizes, T. Forest.

Heifer calved in the year 1868.—First prize, H. Jones; second, J. Roche, M.D.

DAIRY COWS.

Lot of three Dairy Cows, of any age or breed.—First prize, D. Driscoll; second, T. Forrest.

EXTRA STOCK.—The prize to M. Ahern, of Blarney.

H O R S E S.

Cart Stallion.—Prize, H. Irvine, Dunvale, Cork.

Draught mare in foal, or with a foal at her foot.—First prize, J. McKeuzie, Innishannon; second, J. B. Roberts, Ballinhassig.

Three-year-old Colt or Filly for farming purposes.—First prize, M. Ahern; second, Mrs. Forrest, Killcens.

Two-year-old Colt or Filly for farming purposes.—First prize, M. Ahern; second, T. Forrest.

SHEEP.

LEICESTER.

Shearling Ram.—First prize, S. Mowbray; second, W. R. Meade.

Ram of any other age.—First prize, W. R. Meade; second S. Mowbray.

Pen of five Shearling Ewes.—Prize to S. Mowbray.

BORDER LEICESTER.

Shearling Ram.—First and second prizes, J. P. Furlong.

Ram of any other age.—Prize, R. Briscoe.

OTHER LONG-WOOLLED.

Shearling Ram.—Prize, J. P. Furlong.

Ram of any other age.—Prize, J. B. Smyth.

Pen of five Shearling Ewes.—Prize, J. B. Smyth.

SHORT-WOOLLED.

Shearling Ram.—First prize, R. W. G. Adams; second, J. P. Furlong.

Ram of any other age.—Prize, R. W. G. Adams.

Pen of five Shearling Ewes.—Prize, R. Barter, jun.

P I G S.

Boar of the white breed, over 12 months old.—First prize, R. Lawe; second, I. W. B. Magill.

Boar of the white breed, under 12 months old.—First prize, J. C. Cooper; second, W. J. Rumley.

Boar of the coloured breed, over 12 months old.—First prize, J. C. Cooper; second, A. C. J. Warren.

Breeding Sow of the white breed.—Prize, J. C. Cooper.

Breeding Sow of the coloured breed.—First prize, J. C. Cooper; second, A. C. J. Warren.

Lot of three breeding pigs of the same litter, born in 1870.—Prize, I. W. B. Magill.

FOR TENANT FARMERS ONLY.

Cow for dairy purposes, of any breed or cross-breed.—First prize, D. Driscoll, Blarney; second, J. McDonnell, Carrigaline; third, M. Forrest, Blarney.

Heifer, of any breed or cross-breed, calved in 1868.—First prize, Christy Brothers; second, T. Dorgan.

Heifer, of any breed or cross-breed, calved on or after Jan. 1, 1869.—First prize, Christy Brothers; second, D. Driscoll.

Five Ewe Lambs.—First prize, T. Forrest; second, R. J. Nash.

Yearling Shorthorned Bull.—First prize, M. Ahern, Blarney; second, T. Forrest, Blarney.

Thoroughbred Sires.—First prize, St. George Mansergh, Friarsfield, Tipperary; second, F. H. Power, Mallow.

HUNTERS.

Weight-carrying Hunter, not less than five years old, equal to 14 stone.—First prize, E. H. Reeves, Mallow; second, J. B. C. Justice, Riverstown.

Hunter, not less than five years old, equal to 12 stone.—First prize, Colonel Ainslie, Royal Dragoons; second, R. D. Hare, Queenstown.

Four-year-old Horse or Mare for hunting purposes.—First prize, J. Bruce, Charleville; second, R. Lawe, Ballynova.

Three-year-old Colt or Filly for hunting purposes.—First prize, F. H. Power, Mallow; second, T. Hayes, jun., Crosshaven.

Ladies' Riding Horse or Mare.—First prize, Viscountess Doneraile; second, T. Garde, Middleton.

Park Haek.—Prize, J. Bruce, Charleville.

Harness Horse.—Prize, J. Bruce.

Pony under 12 hands high.—Prize, R. Clifton, Clifton Grange.

Neatest and smallest pony, over three years old.—Prize, H. Morris, Douglas.

Thoroughbred Mare, in foal, or with foal at foot.—First prize, E. Burke, Ringaskiddy; second, W. Barry, Carringtonhill.

Brood Mare, for producing weight-carrying hunters, in foal, or with a foal at foot.—Prize, J. Delany, Riverstown.

Mare calculated to produce weight-carrying hunters, in foal, or having had a foal in '69 or '70.—First prize, W. S. Hunt, Killeagh; second, J. B. C. Justice.

THIRSK AGRICULTURAL SOCIETY.

The first show of this newly-established Society was held near Thirsk. There were some very good animals in the cattle classes, especially the dairy cows, for the best three of which a silver cup was awarded to Mr. T. H. Hutchinson, of Manor House, Catterick. Major Stapylton took the first prize for bulls with Lord Wetherby. Mr. T. H. Hutchinson carried off all the prizes for Leicester sheep. The two prizes for thorough-bred entire horses for hunters went to J. R. Dennison, for Grand Master, and to J. Meggison for Shibolet. The prize for the best entire agricultural horse was obtained by J. Farsham for Non Such.

JUDGES.

HORSES.—Hunters and Roadsters: A. L. Maynard, Skinninggrove; G. Bolau, Alwinton, Rothbury. Coach and Cart Horses: J. Mewburn, Ingleby Hill, Yarm; W. Hill, North Charlton, Embleton.

CATTLE, SHEEP, AND PIGS.—T. P. Outhwaite, Goldsborough; T. Scott, Broom Close, Ripon; J. Culshaw, Towneley Hall, Burnley.

PRIZE LIST.

CATTLE.

SHORTHORNS.

Best bull, two years old and upwards.—First prize, Major Stapylton, Myton Hall; second, the Hon. P. Dawney, Benningbrough Hall.

Bull, above one year and under two years.—First prize, Cap. R. Tennant, Scarcroft Lodge, Leeds; second, S. Barker, Pockley, Helmsley.

Calf, under twelve months old.—First prize, Major Stapylton; second, Capt. R. Tennant.

Cow or heifer, in calf or milk, three years old and upwards.—First prize, Capt. R. Tennant; second, J. W. Botcherly, Middleton-one-row, Darlington.

Cow or heifer, in calf or milk, under three years old.—First prize, Capt. R. Tennant; second, I. Garbutt, Brag House, Farndale.

Heifer, one year old and under two years.—First prize, T. H. Hutchinson; second, Capt. R. Tennant.

Heifer calf, under twelve months old.—First prize, Major Stapylton; second, Major Stapylton.

ANY BREED OR CROSS.

Cow, for dairy purposes.—First prize, J. T. Robinson, Leckby Palace, Thirsk; second, C. Douthwaite, Northallerton.

Cow, the property of a cottager.—First prize, J. Cummings, Weswick, Ripon; second, J. Todd, Sion Hill, Thirsk.

Three dairy cows, in calf or milk, the property of a tenant farmer.—Prize, a silver cup, T. Hutchinson, Manor House, Catterick.

A silver medal to Capt. Tennant's first prize cow.

SHEEP.

LEICESTER OR LONG WOOL.

Ram, one shear.—First prize, T. H. Hutchinson; second, T. H. Hutchinson.

Ram, aged.—First prize, T. H. Hutchinson; second, T. H. Hutchinson.

Pen of three gimmer shearlings.—First prize, T. H. Hutchinson; second, T. H. Hutchinson.

Pen of three ewes, having suckled lambs in 1870.—First prize, T. H. Hutchinson; second, T. H. Hutchinson.

OTHER BREEDS.

Pen of three Marsham ewes, having suckled lambs in 1870.—First prize, H. Walton, Low Gingerfield, Richmond; second, W. T. Wells, Kirklington, Ripon.

PIGS.

Boar, large breed.—First prize, W. Lister, Armley; second, G. Chapman, Seamer.

Boar, small breed.—First prize, G. Knowlson, Thormanby; second, W. Lister.

Boar, any other breed, not qualified to compete in the two previous classes.—First prize, S. Appleby, Armley; second, G. Sedgwick, York.

Sow, large breed, in pig or milk.—First prize, W. Lister; second, G. Chapman.

Sow, any other breed, not qualified to compete in the two previous classes.—First prize, J. Greaves, Clothholme; second, G. Chapman.

Three gilt pigs, under twelve months old.—First prize, W. Routledge, York; second, G. Chapman.

Pig, the property of a cottager.—First prize, T. Greenwood, Leeds; second, J. Eden, Thirsk.

A silver cup for the best female pig to W. Lister.

HORSES.

Thoroughbred stallion for hunters.—First prize, J. R. Dennison, Minsthorp, Pontefract; second, J. Meggison, Brompton Moor, Northallerton.

Stallion for agricultural horses.—Prize, J. Forsham, Burley-in-Wharfedale.

Brood mare for breeding coach horses, with foal at foot.—First prize, J. Curry, Bolby; second, W. Mothersill, Brockholme, Northallerton.

Brood mare for breeding roadsters, with foal at foot.—First prize, F. Cookson, Roundhay, Leeds; second, A. Hawxwell, Thirsk.

Brood mare for breeding agricultural horses, with foal at foot.—First prize, T. Upton, Pallathorpe, Tadcaster; second, J. Pinkney, Bagby Grange.

HUNTERS.

Yearling gelding for the field.—First prize, G. M. Lomas, Dishforth, Thirsk; second, J. T. Robinson, Leckby Palace, Thirsk.

Yearling filly for the field.—First prize, W. Clark, Asenby, Thirsk; second, R. Emmerson, Over Dinsdale.

Two years old gelding for the field.—First prize, J. Cattle, Barton-le-street, Malton; second, R. Brunton, Marton, Middlesbro'.

Two years old filly for the field.—First prize, G. B. Peirson, Baldersby; second, J. T. Robinson.

Three years old gelding for the field.—First prize, S. L. Lane, Baldersby Park; second, S. L. Lane.

Three years old filly for the field.—First prize, J. Kirby, Knayton; second, G. Knowlson, Thormanby.

Hunting gelding or mare four years old, to be ridden in the ring.—First prize, D. Batty, Myton; second, J. Kirby.

COACH HORSES.

Yearling gelding.—Prize, W. Mothersill, Brockholme, Northallerton.

Yearling filly.—Prize, J. Walls, Kilvington.

Two years old gelding.—First prize, T. Plummer, Birdforth, Easingwold; second, J. Wells, Hutton Hall, Ripon.

Two years old filly.—First prize, J. Cleasby, Carlton Miniott, Thirsk; second, J. Plews, Howlett Hall, Whitby.

Three years old gelding.—First prize, T. Plummer; second, M. and W. Boville, Walk Mills, Osmotherley.

Three years old filly.—First prize, J. Donaldson, Great Ayton; second, — Garnett, Welbury, Northallerton.

ROADSTERS.

Two year old gelding.—First prize, J. Orrell, Byland Abbey; second, J. Carter, Marske.

Two years old filly.—First prize, G. B. Carter, Thirsk; second, W. Sanderson, Hambleton.

Three years old gelding.—First prize, R. M. Bowman, M.D., Ripon; second, C. Knowlson, Birdford.

Three years old filly.—First prize, W. Snowden, Slingsby; second, W. Robinson, Morton-on-Swale.

Gentleman's hackney, any age or sex, not exceeding 15 hands in height.—First prize, T. Robson, Thornton Marishes; second, R. M. Bowman, M.D.

CART HORSES.

Yearling gelding.—Prize, C. Boroby, Baldersby, Thirsk.

Two years old gelding.—First prize, Mrs. Hedon, Baldersby; second, Hon. G. E. Lascelles, Thirsk.

Three years old gelding.—Prize, P. Stephenson, jun., Rainton.

Three years old filly.—First prize, M. Reed, Beamish Burn, Chester-le-street; second, J. Hopps, High Burton.

Pair of Agricultural horses, of either sex.—First and second prizes, Major Stapylton, Myton Hall, Helperby.

Best jumper.—First prize, H. Johnson, Spofforth; second, C. Rose, Malton.

Mare for breeding weight carrying hunters, with a foal at foot.—First prize, silver cup, W. H. Clark, Howden; second, J. T. Robinson, Leckby Palace, Thirsk; third, R. Cattley, Wigginthorpe.

Pony, not exceeding 14 hands in height, any age or sex.—First prize, A. Hawxwell, Thirsk; second, T. Brooks, Manor House, Thirsk.

THE DURHAM COUNTY AGRICULTURAL SOCIETY.

MEETING AT SUNDERLAND.

The twenty-second annual exhibition of this Society was held on the farm of Mr. R. Smith, High Hendon. This year's show, that a larger number of silver cups were offered by gentlemen of the town and neighbourhood of Sunderland than at any previous meeting in other parts of the county. The number of Shorthorns on the show-ground last year, at Bishop Auckland, was 29, and this year 47; and horses 143 last year, and this year 220. One of the principal features of the show was, of course, the exhibition of hunters. Amongst them were several very fine animals. The special prize for the best shorthorned breeding animal was awarded to Mr. Outhwaite's heifer Vivandiere; the special prize for the best shorn, the property of a landowner or occupier in the county of Durham, was taken by Mr. Geo. Atkinson's heifer Village Bell, which also took the special prize, consisting of a piece of plate of the value of 25 guineas.

JUDGES.

CATTLE, SHEEP, AND PIGS: John Wood, Stanwick Park, Darlington; Jefferson, Preston Howe, Cumberland; George Wilkinson, Herrington.

HORSES.—Field and Harness: W. Hawdon, Walkerfield; J. Atkinson, Doddington, Wooler; R. Hodgson, Biamper. Cart: B. Spraggon, Nafferton; R. Wade, Little Burdon; C. Hubbick, Durham.

DAIRY PRODUCE: The Mayoress of Sunderland; the Hon. Lady Williamson; Lady Julia Wombwell.

P R I Z E L I S T .

CATTLE.

SHORTHORNS.

Bull of any age.—First prize, £5, W. H. Raine, Morton Tinnmouth, Darlington; second, Earl Vane, Wynyard Park (Sultan 2nd).

SPECIAL PRIZES FOR THE BEST SHORTHORNS.

Shorthorn breeding animal of either sex.—Prize, a silver cup, Outhwaite's heifer (Vivandiere).

Shorthorn, the property of a landowner or occupier in the county of Durham.—Prize, a silver cup value 10 gs., George Atkinson's heifer (Village Belle).

Shorthorned breeding animal of either sex, the property of a tenant farmer in the county of Durham.—Prize, a piece of plate of the value of 25 gs. (to be held until the Society's Show next year), G. Atkinson's heifer (Village Belle).

Bull under two years.—First prize, £10, Lady Pigot, Branches Park, Newmarket (Bythis); second, £5, W. Linton, Sheriff Hutton, York (Lord Irvine).

Cow in calf or milk, having had a calf within the last 12 months.—First prize, £8, Lady Pigot (Queen of Rosalea); second, £4, J. W. Botcherby, Middleton-one-Row, Darlington (Bessy Gwynne).

Two-year-old heifer in calf.—First prize, £6, J. Outhwaite, Baines, Catterick, Yorkshire; second, £3, R. Burdon, Castle Eden (Roseleaf).

One-year-old heifer.—First prize, £4, G. Pollard, Trafford Hill (Abergeldie); second, £2, G. Atkinson, Hall Farm, Seaham (Bracelet).

Bull calf under twelve months old.—First prize, £3, J. H. Hutchinson, Manor House, Catterick, K.G.; second, £1, Earl Vane, Wynyard Park (Grand Turk).

Heifer under twelve months old.—First prize, £3, J. H. Hutchinson, Manor House, Catterick (Gerty); second, £1, J. Bulmer, Middleton-one-Row (Prince Royal).

Bull under three years old, the property of a landowner or occupier.—First prize, £5, R. F. Trenholm, Butterwick, Sedgfield (Windleston); second, £2, Earl Vane, Wynyard Park (Sultan 2nd).

Cow in calf or milk having had a calf within the last twelve months.—First prize, £3, G. Atkinson, Hall Farm, Seaham (Ringlet); second, £1, G. Atkinson (Julia).

Two-year-old heifer in calf.—First prize, £3, W. H. Raine, Morton Tinnmouth, Darlington (Fern Froud); second, £1, J. Bulmer, Middleton-one-Row (Rosette).

SHEEP.

Ram of any age.—First prize, £5, J. H. Hutchinson, Manor House, Catterick; second, £2, Captain C. J. Briggs, Hylton Castle.

Shearling ram.—First prize, £5, J. H. Hutchinson; second, £2, J. H. Hutchinson.

Pen of five ewes, having reared lambs.—Prize, £3, J. H. Hutchinson.

Pen of shearling gimmers.—First prize, £3, J. H. Hutchinson; second, £2, J. H. Hutchinson.

PIGS.

Boar, large breed.—First prize, £3, R. E. Duckering, Northorpe, Kirton Lindsay; second, £1, R. E. Duckering.

Boar, small breed.—First prize, £3, George Mangles, Great Givendale, Ripon; second, £1, V. W. Corbett, Seaham.

Sow, large breed.—First prize, £2, R. E. Duckering; second, £1, R. E. Duckering.

Sow, small breed.—First prize, £2, R. E. Duckering; second, £1, G. Mangles.

Pig the property of a cottager.—First prize, £1, J. Taylor, South Lodge Cottage, Roker; second, 10s., J. Miller, Thorn-ton Place, Sunderland; third, 5s., J. Miller.

HORSES.

Hunter.—First prize, a silver cup, Captain A. H. Hunt, Birtley; second, £5, E. T. Smith, Colepike Hall.

Leaper.—First prize, a silver cup, T. Dobson, Newcastle; second, £2, Robert Woodfield, East Herrington; third, £1, R. T. Walker, Fence Houses, Greatham, Stockton-on-Tees.

Saddle Mare.—First prize, £5, John Thomas Robinson, Leckby Palace, Aseby, Thirsk; second, £2, B. Spraggon, Nafferton, Stocksfield-on-Tyne.

Three-year-old colt for the field.—First prize, £4, R. Burdon, Castle Eden; second, £1, R. Brunton, Marton, Middlesborough.

Three-year-old filly for the field.—First prize, £4, Philip Kirkup, Bishopwearmouth; second, £1, G. Mears, Tatham-street, Sunderland.

Two-year-old colt for the field.—First prize, £3, R. F. Trenholm, Butterwick, Sedgfield; second, £1, W. Smith, Carr House, Darlington.

Two-year-old filly for the field.—First prize, £2, John Thomas Robinson; second, £1, A. Hedley, Elyhaugh, Felton.

Yearling colt for the field.—First prize, £2, J. T. Robinson; second, £1, A. Hedley.

Yearling filly for the field.—First prize, £2, R. Emmerson, Over Dinsdale, Darlington; second, £1, William Forster, West Herrington.

Harness mare.—First prize, £5, William Laing, Sunderland; second, £2, Robert Crow, Low Raisby, Kelsoe.

Three-year-old colt for the field.—First prize, £4, J. Beach, Durham Hotel, West Hartlepool.

Three-year-old filly for harness.—First prize, £1, Robert Garnett, Welbury, Northallerton; second, £1, John Donaldson, Great Ayton, Northallerton.

Two-year-old colt for harness.—First prize, £3, J. H. Harris, Houndalee, Morpeth.

Three-year-old filly for harness.—First prize, £3, W. Palister, Houghton-le-Spring.

Foal for the saddle.—First prize, J. T. Robinson; second, 10s., R. Emmerson, Over Dinsdale, Darlington.

Foal with harness.—Prize, W. Minto, Hetton-le-Hill, Easington Lane.

Cart foal.—First prize, Colonel Wood, Howlish Hall; second, 10s., J. Rennoldson, Cleadon Laws, Cleadon.

FOR AGRICULTURAL PURPOSES.

Cart mare.—First prize, £5, G. Atkinson, Hall Farm, Seaham; second, £2, J. Laws, Eachwick Red House, Dalton, Northumberland.

Three-year-old cart colt.—First prize, £4, W. C. Carr, South Benwell, Newcastle; second, £1, N. Stonehouse and Son, Skelton Mill, Marske-by-the-Sea.

Three-year-old cart filly.—Prize, £4, M. Reed, Beamish Burn.

Two-year-old cart colt.—First prize, £3, G. Atkinson; second, £1, T. Gibbons, Cleadon Hills, Harton, South Shields.

Two-year-old cart filly.—First prize, J. Atkinson, Bywell Hall Farm, Stocksfield-on-Tyne; second, £1, M. T. Clark, Pittington Hallgarth.

Yearling cart colt.—First prize, £2, T. Cumming, Lancheater, Durham; second, £1, J. Fowler, Claypath, Durham.

Yearling filly.—First prize, £2, J. Henderson, Horsley Hill, South Shields; second, £1, T. Cumming,

Pair of daught horses.—First prize, a silver cup, G. Atkinson; second, £2, G. Wilkinson, East Herrington, Sunderland.

ROADSTERS.

Roadster.—First prize, a silver cup, value 10 guineas, G. Dale, West Lodge, Carlington; second, £3, H. H. Thompson, The Oaks, Sunderland.

LADIES' HACKNEY.

Ladies' hackney.—First prize, a silver cup, D. Dale; second, £3, H. H. Thompson.

Pony, not exceeding twelve hands high.—First prize, £2, C. Taylor, 1, Thornhill-terrace, Sunderland; second, £1, R. L. Pemberton, The Barnes, Sunderland.

LOCAL PRIZES.

Pair of draught horses, the property of an inhabitant of the borough.—First prize, a silver cup and £5, W. H. Allison, Undercliffe, Sunderland; second, £2, E. and F. Richardson, Steam Mills, Bishopwearmouth.

Single draught horse, the property of an inhabitant of the borough.—First prize, £2, W. H. Allison; second, £1, J. J. Allison, Roker.

Pony, not exceeding fourteen hands in height, the property of an inhabitant of the borough.—First prize, L. Briggs, The Cedars, Sunderland; second, J. Crisp, Lane House, Hylton-road.

DAIRY PRODUCE.

Four pounds of fresh butter.—First prize, J. Henderson, Horsley Hill, South Shields; second, Mrs. Atkinson, Seaham Hall Farm; third, Mrs. Burnside, Hollar House, Cockerton.

Two half-pounds of fresh butter.—First prize, W. Smith, East Boldon; second, Jane Newby, Littlethorpe, near Easington.

Four pounds of fresh butter.—First prize, Miss Peacock, Springwell House; second, Mrs. J. Fish, East Boldon.

Basket of fresh hen eggs.—First prize, Mrs. G. Dawson, Tunstall; second, G. H. Proctor.

The dinner was well attended; Sir H. Williamson, Bart., M.P., occupied the chair.

THE NORTHUMBERLAND AGRICULTURAL SOCIETY.

MEETING AT MORPETH.

The weather was very favourable, and the number of visitors during the day was very great. The show in many respects deserves to be regarded as one of the most successful the Society has ever held, both as regards number and quality. In 1868, when at Cornhill, the total number of entries was 734, in 1869, when at Hexham, the total was 907; and this year, at Morpeth, the total was 939. The first prize for the aged bull was carried off by Mr. Coulthart, Brampton, with Ace of Trumps. Lady Pigot, Branches Park, Newmarket, gained two silver medals, one for the year old bull, Bythis, and the other for her celebrated cow, Queen of Rosalea. The display of Gallows was small, but excellent in quality.

JUDGES.

CATTLE.—Shorthorns: T. C. Booth, Warlaby, Northallerton; J. Knowles, Wetherby Grange, York; and G. Mitchell, Meikle, Heddoe, N.B. Gallows: W. Forster, jun., Stonegarth Side, Longtown; W. Armstrong, Tarnend, Milton; and J. Little, Guards' Farm, Greta.

SHEEP.—Border Leicesters: A. Geekie, Baldowrie, Glasgow; F. P. Lynn, Mindrim Mill, Coldstream; and W. C. Thompson, Dilstonhaugh, Cumberidge. Cheviot and blackfaced: W. Henderson, Powberry Mains, Belford; J. Hogarth, Julien Bower, Penrith; and H. H. Scott, Alham, Alnwick.

HORSES.—Agricultural purposes: J. Atkinson, Brandon, Alnwick; J. Bolam, Glororum, Belford; and J. Blackstock, Hayton Castle, Maryport. Horses for the field: J. Parrington, Brancepeth, Durham; J. Smith, Humburton, Borobridge; and J. Usher, Stodrigg, Kelso. Hackneys and ponies: G. Coulthard, Lanercost Abbey, Brampton; R. Craig, Lyham, Belford; and L. C. Chrisp, Hawkhill, Alnwick.

PIGS.—J. Rutherford, Way-to-Wooler, Wooler; J. A. Armstrong, Baysleap, Newcastle; and C. Borthwick, Mindrim, Coldstream.

WOOL.—J. Humble, Newcastle.

PRIZE LIST.

CATTLE.

SHORTHORNS.

Bulls, above two and under seven years old.—First prize, Coulthard, Smith, and Bell, Brampton (Earl of Chester); second, J. Newton, Cholerton (Ace of Trumps); third, J. Wright, Greengill, Penrith.

Bulls, above one and under two years old.—First prize, Lady Pigot, Branches Park, Newmarket (Bythis); second, W. Linton, Sheriff Hutton, York; third, J. Outhwaite, Bainesse, Catterick.

Bull calves, under twelve months old.—First prize, R. Harrett, Kirkwelpington (Gipsy Queen); second, Sir M. W. Ridley, Bart., Blagdon.

Cows.—First prize, Lady Pigot (Queen of Rosalea); second, W. Linton.

Heifers, above two and under three years old.—First prize, Sir W. C. Trevelyan, Bart., Wallington (Yetholm Daisy); second, J. Outhwaite.

Heifers, above one and under two years old.—First prize, T. H. Hutchinson, Manor House, Catterick (Lady Blanch); second, G. and J. Atkinson, Bywell Hall Farm.

Heifer calves, under twelve months old.—First and second prizes, Sir W. C. Trevelyan.

Heifers, above two and under three years old.—First prize, G. and J. Chirney, Ellington, Morpeth; second, G. G. Lee, West Laud Ends, Haydon Bridge.

Heifers, above one and under two years old.—First prize, S. Langdale, High Espley, Morpeth; second, G. G. Lee.
Heifer calves, under twelve months old, S. Langdale; second, G. G. Lee.

GALLOWAYS.

Bulls above two years old.—James Graham, Parcelstown, Carlisle.

Bulls under two years old.—James Cunningham, Tarbreock, Dalbeattie.

Cows or heifers above three years old.—First prize, James Cunningham; second, James Graham.

Cows or heifers under three years.—James Graham, Parcelstown, Carlisle.

SHEEP.

BORDER LEICESTERS.

Rams of any age.—First and second prize, Rev. R. W. Bosanquet, Rock, Alnwick.

Shearling rams.—First prize, George Torrance, Sisterpath; second, Mr. Simson, jun., Bainslie, Lauder; third, Messrs. Dinning, Nilston Ridge.

Pen of five ewes.—First prize, George Simson, Courthill, Kelso; second, J. and G. Laing, Wark.

Pen of five gimmers.—First prize, Rev. R. W. Bosanquet, Rock; second, John Langdale, Newton Red House.

CHEVIOTS.

Rams of any age.—First and second prize, Thomas Elliot, Hindhope. Commended, John Douglas, Swininside Hall, Jedburgh.

Two shearling rams.—First and second prize, Thomas Elliot, Hindhope, Jedburgh.

Pens of five ewes.—First prize, T. Elliot; second, R. Shortreed, Attonburn.

Pen of five gimmers.—First and second prize, T. Elliot, Hindhope.

BLACK-FACED MOUNTAIN BREEDS.

Rams of any age.—First prize, T. Oliver, Redburn, Stanhope; second, H. T. Thompson, Lamparts, Gilsland.

Shearling rams.—First prize, T. Oliver, Redburn; second, T. White, Westburnhope.

Pens of five ewes.—First prize, D. Tweedie, Lanarkshire; second, C. Armstrong, Garrigill.

Pens of five gimmers.—First prize, D. Tweedie; second, C. Armstrong.

ANY OTHER DISTINCT BREED.

Pens of five ewes and gimmers.—Prize, T. H. Hutchison, Manor House, Catterick.

HORSES.

FOR AGRICULTURAL PURPOSES.

Brood mares, with foal at foot.—First prize, J. and G. Atkinson, Bywell Hall Farm; second, J. Laws, Eachwick Red House.

Three years old geldings or fillies.—First prize, C. Lister, Coleby Lodge, Lincoln; second, B. Spraggon, Nafforton.

Two years old geldings or fillies.—First prize, J. Dinning, Belford; second, T. Gibson, Cleadon Hills.

One-year-old geldings or fillies.—W. Laws, Black Heddon; second, J. Laycock, Low Gosforth.

Pair of geldings or mares of any age.—W. Smith, Melkington.

Pairs of mares of any age.—Gibbons, Burnfoot.

FOR THE FIELD.

Brood mares.—First prize, Mr. Robinson, Lechby Palace; second, Mr. Crisp, Hawkhill.

Three-years-old geldings or fillies for the field.—First prize, Messrs. Armstrong, Carlisle; second, Mr. Smith, Melkington.

Two-years-old geldings or fillies for the field.—First prize, Mr. Calder, Kelloe Mains; second, Mr. Smith, Carr House.
One-year-old geldings or fillies for the field.—First prize, R. Dand, jun., Field House, Bilton; second, Mr. Thompson, The Frolic, Capheaton.

Horses or mares, above five and under ten years old.—First and second prize, Sir W. C. Trevelyan.

Hunters.—First prize, T. E. Smith, Gosforth House; second, T. Parker, Shellaeres, Norham.

Horses or mares, four-years-old.—First prize, Mr. Turnbull, Branton West Side; second, J. Wilson, Woodhorn Manor.

Hackneys, horse or mare.—First prize, C. Stevenson, Newcastle; second, J. H. Harris, Hounddale, Morpeth.

Ponies, horse or mare.—First prize, J. Newton, Chollerton; second, T. Sample, Bothal Castle; third, Master Annett.

SWINE.

Boars of the large breed, of any colour.—First and second prize, Mr. Duckering, Northorpe, Kirtou, Lindsey.

Boars of the small breed, of any colour.—First prize P. Eden, Salford; second, Mr. Mangles, Ripon.

Sows of the large breed, of any colour.—First and second prize, Mr. Duckering, Northorpe.

Sows of the small breed, of any colour.—First prize, Mr. Eden, Salford; second, Mr. Duckering, Northorpe.

Sows of the middle breed.—First prize, Mr. Eden, Salford; second, Mr. Duckering, Northorpe.

Sow pigs, pen of 3 of the large breed, under sixteen weeks old.—First prize, Mr. Eden, Salford.

Sow pigs, pen of 3 of the small breed, under sixteen weeks old.—First prize, Mr. Eden, Salford.

WOOL.

Leicester, best five fleeces.—First prize, Messrs. Laing, Wark; second, The Executors of the late J. Angus, Whitefield.

Cheviot, best five fleeces.—First and second prize, R. Donkin, Ingram.

Half-bred, best five fleeces.—First and second prize, R. Donkin, Ingram.

Black-faced, best five fleeces.—First and second prize, Earl of Tankerville.

About 300 gentlemen sat down to the dinner, in a large pavilion erected on the show ground. The chair was occupied by the Right Hon. Lord Vernon, President of the Royal Agricultural Society (of Sudbury Hall, Derbyshire, and the owner of the Widdrington estate).

The CHAIRMAN, in proposing "Success to the Northumberland Agricultural Society," alluded to the great agricultural improvements which had taken place in the county of Northumberland during the last few years. These, he believed, were in great part due to the energy and activity of the various persons engaged in the cultivation of the soil, and also to the good relations which subsisted between landlord and tenant. He next alluded to the subject of women labouring in the fields, and contended that the occupation was quite as healthy as many others in which women were engaged, and in no degree more degrading. He spoke at some length of the improvements which might yet be introduced into agricultural affairs by a more extended use of steam power in the cultivation of the soil. Northumberland, he thought, was in many respects well suited for the introduction of steam power as the fields were generally large, and as some of them knew to their cost, the soil was stiff and heavy. He concluded by coupling the toast with the name of the secretary, to whose abilities he paid a warm compliment.

GLOUCESTERSHIRE AGRICULTURAL SOCIETY.

MEETING AT STROUD.

At the annual show of the Gloucestershire Agricultural Society the Entries was very short. The *Hereford Times* describes the stalls of the white faces "a beggarly account of empty boxes;" several of which were entered for the show did not make an appearance. There had

been three entries; viz., Mr. John Baldwin's Lord Ashford; Mr. Thomas Edwards's Leominster the Third; and Mr. Thos. Thomas's (St. Hilary) Sir John the Third—a prizetaker at Taunton and Oxford. Two out of the three stalls were, however, vacant, and Leominster the Third, which was

third in his class at Oxford, and a grand young bull, by Tomboy, a son of the famous Sir Thomas—was alone in his glory. In the next class—bulls above one and under two years old—five out of six entered were shown, viz., Mr. Thos. Edwards's Sir Robert, also by Tomboy; Mr. H. R. Evans's Sir Oliver the 3rd, by the Hampton Court Sir Oliver the 2nd; Mr. John Harding's Count Fosco and Noble Boy, the former by Severus and the latter by Symmetry; and Mr. Richard Hill's, by Interest. Of this lot Count Fosco was placed second at Oxford to that grand young bull Mr. Philip Turner's Trojan; Mr. Hill's President—about which there was so much talk, on the ground of his great size and development for his recorded age—third; while Noble Boy and Sir Oliver the 3rd passed without official recognition. The judges at Stroud reversed the Oxford decisions, for they placed Noble Boy first, and did not notice his stall companion, Count Fosco; Mr. Edwards coming second with Sir Robert, and Mr. H. R. Evans getting the reserve number with Sir Oliver the Third; the big bull from Orleton not at all taking their fancy. In the class for bull-calf under 12 months old, Mr. Richard Hill and Mr. H. R. Evans were the only two who exhibited out of an entry of four; Mr. Hill's Pearl Diver taking first, and Mr. Evans's calf by Chieftain second. The breeding cow class, which had three entries, was a blank; and the class for heifers under two-years-old was just redeemed from that position by the presence of Mr. John Harding's Dahlia. In the class for heifer calf under 12 months' old, three out of four were staled. Thus ended the meagre list of the Herefords. Out of the 49 entries of Shorthorns there were about a dozen absentees. In the aged bull class we understood that the Taunton decisions were reversed.

The entries of horses reached to 103, and nearly all were present. In the class of entire thoroughbred sires for producing hunters or hacks, the first prize fell to Mr. M. Biddulph. The class for hunters of any age, in which there were 13 entries, was a very fair one. The class for hunters under five years old was a good one, and the mare and foal class (13 entries) was a remarkably good one. We subjoin a list of the judges and prizes.

JUDGES.—Cattle: E. Doig, Lillingstone Hall, Buckingham; T. S. Bradstock, Cobrey Park, near Ross. Sheep and Pigs: T. Walker, Stowell Park, near Northleach; A. Edmonds, Longworth, Faringdon. Cart Horses: J. Craddock, Eastington, Northleach; J. Barton, Colne St. Aldwyns, Fairford. Hunters and Roadsters: Col. Kingscote, C.B., Kingscote Park, Wotton-under-Edge; Major Heywood, Ocle Court, Hereford; J. E. Bennett, Husband's Bosworth Grange, Rugby. Cheese: B. Brunsdon, Ross; J. Bretherton, Gloucester.

CATTLE.

HEREFORDS.

Bull above 2 years old.—Prize, £10, T. Edwards, Wintercott, Leominster (Leominster 3rd, 3211).

Bull above 1 and under 2 years old.—First prize, £10, J. Harding, Bieton, Shrewsbury (Noble Boy); second of £5, T. Edwards, Wintercott (Sir Robert).

Bull calf under 12 months old.—First prize, £5, R. Hill, Orleton Court, Ludlow (Pearl Diver); second of £2, H. R. Evans, jun.

Heifer under 2 years old.—Prize, £5, J. Harding, Bieton, Shrewsbury (Dahlia).

Heifer calf under 12 months old.—First prize, £4, J. Harding (Red Dahlia); second of £2, E. J. Morris, Stanley Pontlarge, Winchcombe (Stanley's Delight).

Three dairy cows of any breed, in milk.—First prize, £10, G. Garne, Churchill Heath; second, £5, E. J. Morris.

SHORTHORNS.

Bull above 2 years old.—First prize, £10, the Right Hon. Lord Sudeley, Toldington, Winchcombe; second £5, G. Garne.

Bull above 1 and under 2 years old.—First prize, £10, T. Garne and Son, Broadmoor, Northleach; second of £5, J. Dove, Hambrook House, near Bristol.

Bull calf under 12 months old.—First prize, £5, R. Stratton, Burderup, Swindon, Wilts; second of £2, T. Morris, Maisemore Court, near Gloucester.

Bull, cow, and offspring.—Prize, £10, R. Stratton.

Breeding cows.—First prize, £6, R. Stratton; second of £3, G. Garne.

Heifer under 3 years old.—First prize, £6, R. Stratton; second of £3, T. Garne and Son.

Heifer under 2 years old.—First prize, £5, R. Stratton; second of £2 10s., G. Garne.

Heifer calf under 12 months old.—First prize, £4, R. Stratton; second of £2, R. Stratton.

BREEDING SHEEP.

Long-wools (five theaves).—First prize, £5, Executors of the late T. Gillett, Kilkenny, Faringdon, Berks; second of £5, Sir J. Rolt, Ozleworth Park, Wotton-under-Edge.

Ram of any age.—First prize, £5, Executors of the late T. Gillett; second of £3, T. B. Brown, Salferton Park.

Shearing rams.—First prize, £3, Executors of the late T. Gillett; second of £3, Executors of the late T. Gillett.

Five ewe lambs.—Prize, £5, H. Cole, Ashbrook, Cirencester.

Five ram lambs.—Prize, £5, H. Cole.

Short-wools (five theaves).—First prize, £10, Sir W. Throckmorton, Bart., Buckland, Faringdon; second of £5, Colonel Kingscote, C.B., M.P., Kingscote Park.

Ram of any age.—First prize, £5, Sir W. Throckmorton, Bart.; second of £3, Sir W. Throckmorton, Bart.

Shearing ram.—First prize, £5, Colonel Kingscote, C.B., M.P.; second of £3, Colonel Kingscote, C.B., M.P.

Five ewe lambs.—Prize, £5, Sir W. Throckmorton, Bart.

Five ram lambs.—Prize, £5, G. Wallis, Old Shifford.

OXFORDSHIRE AND SHROPSHIRE.

Ram of any age.—Prize £5, G. Wallis, Old Shifford.

Shearing rams.—Prize £5, G. Wallis.

HORSES.

Cart horses, stallion.—First prize, £20, W. Wynn, Cranhill Leys, Grafton, near Alcester; second of £10, Col. Kingscote, C.B., M.P.

Cart horses, mare and foal.—First prize, £10, G. Finch, Cubberley Court, Cheltenham; second of £5, S. Davis, Woolashill, near Pershore.

Cart horses, gelding or filly.—Prize, £5, J. Theyer, Crickley Hill, near Cheltenham.

Stallion for getting hunters or hacks.—First prize, £25, M. Biddulph, M.P., Ledbury (The Mallard).

Hunters of any age.—First prize, £20, R. Holman, Bays Hill, Cheltenham (Pinlinnion); second of £10, C. Cook, Toddington, Winchcombe.

Hunter under five years old.—First prize, £15, A. Newman, Winchcombe. second of £7 10s., W. Till, Coaley, Dursley.

Mare and foal.—Prize, £10, R. Swanwick, Royal Agricultural College Farm, Cirencester.

Hack not exceeding 15 hands.—First prize, £10, R. N. Hooper, Llansannor Court, Cowbridge; second of £5, W. T. Dewe, Coed Cue, Llanelli.

Pony above 12 and under 14 hands.—First prize, £5, Capt. J. S. Ballard, The Verlands, Cowbridge; second of £4, Major Quinton, Haruhill, Cirencester.

Pony not exceeding 12 hands.—First prize, £5, R. Newcombe, Cirencester; second of £3, H. S. Stephens, Stonehouse.

CHEESE.

1 cwt. of thick cheese.—First prize, £5, G. Gibbons, Tunley Farm, Bath; second of £2 10s., S. M. Harding, Nupdown Thornbury.

1 cwt. of double cheese.—First prize, £5, J. Harris, Court House Farm, Cam, Dursley; second of £2 10s., J. Smith, Nupdown Farm, Thornbury.

1 cwt. of thin cheese.—First prize, £5, J. Harris, Court House; second of £2 10s., T. Wittchell, Nyumphfield.

THE DORCHESTER AGRICULTURAL SOCIETY.—The show of this Society was very small. Mr. John Pittfield, of Symondsbury, with his Triumph gained the Hon. W. H. B. Portman's prize for the best bull. Mr. W. Paull, of Puddleton, showed the best heifers, those from Mr. W. Mayo, jun., of Friar's Waddon, being commended. Mr. T. H. Saunders, of Watercombe, carried off Mr. Wingfield Digby's prize for ewes, and also exhibited some good wethers in the extra stock department. Mr. J. C. Fooks, of Cerne Moss, Mr. G. W. Homer, of Athelhampton, and Mr. James Harding, of Waterson, were the other principal prize takers for sheep. A prize offered by Mr. Brymer for the best cart stallion was won by Mr. F. Kelloway of Stratton. At the dinner which followed the show General Sir John Michel presided. It was agreed to invite the Bath and West of England Society to visit Dorchester in 1872.

WHITBY AGRICULTURAL SOCIETY.

At the thirty-seventh annual show of this society the entries exceeded in number those of last year in all the classes except those of sheep; while the classes for horses, particularly the coaching and hunting breeds, were well filled, some of the animals exhibited being of great excellence. The following were the principal prizes awarded:

HORSES.

Thorough-bred stallion.—Prize, P. Hogarth, Lythe.
 Coaching stallion.—Prize, R. Rhea, Pickering.
 Agricultural stallion.—Prize, R. Cole, Flaxton.
 Coaching brood mare, with her foal or stunted.—First prize, R. Welford and Sons, Newton; second, J. Porritt, Buck Rush.
 Coaching foal, colt or filly.—First prize, R. Welford and Sons; second, J. Plews.
 Yearling coaching colt or filly.—First prize, Messrs. Wormald, Normanby; second, A. Welford, Brock Rigg.
 Yearling coaching filly.—First prize, R. Welford and Sons; second, I. Garbutt, Farndale.
 Two-year-old coaching gelding.—First prize, Jilson Estill, Hawsker; second, M. Wellburn, Fylingdales.
 Two-year-old coaching filly.—First prize, G. Gill, Brotton; second, J. Plews, Uggelbarby.
 Three-year-old coaching gelding.—First prize, T. Jackson, Barnby; second, P. Campion, Overdale.
 Three-year-old coaching filly.—First prize, J. Donaldson, Ayton; second, T. Newton, Easington.
 Agricultural brood mare with her foal or stunted.—First prize, W. Burnett; second, W. A. Wood, Sutton Forest.
 Agricultural foal, colt or filly.—First prize, J. Cross; second, W. A. Wood, Sutton Forest.
 Agricultural yearling colt or filly.—Prize, J. Braithwaite, Ebberston.
 Agricultural two years old filly or gelding.—First prize, W. Brewster, Little Barugh; second, Messrs. Wormald.
 Pair of agricultural horses, having been worked as such during the season, age or sex immaterial.—First prize, C. M. Palmer; second, W. Ward, Fanniel Flat.
 Hunting brood mare, with her foal or stunted.—First prize, R. Jackson, Normanby; second, J. Forster, Newton.
 Hunting foal, colt or filly.—First prize, R. Wood, Pinchthorpe; second, F. Peirson, Westonby.
 Hunting yearling, colt or filly.—First prize, P. Shimmins; second, C. M. Palmer.
 Two-year-old hunting colt or filly.—First prize, Messrs. Wormald; second, W. Ward.
 Three years old hunting gelding.—Prize, W. Ward.
 Three years old hunting filly.—First prize, R. Jackson; second, J. S. Darrell, Ayton.
 Hunting mare or gelding.—First prize, J. S. Darrell; second, H. Jewison, Raisthorpe.
 Horse or mare of any breed, which leaps the artificial fences in the best hunting style.—First prize, C. Rose, Malton; second, J. Forster, Newtown.
 Hunting mare or gelding.—First prize, H. Linton, East Row; second, W. Ward.
 Roadster mare or gelding over 14 hands.—First prize, J. Robson; second, D. Hartley.
 Pony, mare or gelding, over 12½ and not over 14 hands.—First prize, J. S. Darrell; second, J. Weighill.
 Pony, mare or gelding, not over 12½ hands.—First prize, J. Windle; second, T. Boyes.

Donkey, horse or mare.—First prize, T. Richardson, Sandsend; second, S. Wilson, Egton.

CATTLE.

SHORTHORNS.

Bull calf, over six and under twelve months old.—First prize, Cass Smith, Westerdale; second, J. Cross.
 Two years old bull.—First prize, W. C. Worsley; second, D. Hartley.
 Heifer calf, over six and under months old.—First prize, J. Bulmer; second, J. Wilkinson.
 Yearling heifer.—First prize, C. Smith; second, R. Hodgson, Westerdale.
 Two years old heifer, in milk or calf.—First prize, I. Garbutt; second, J. Bulmer.
 Cow, in milk or calf.—First prize, I. Garbutt; second, Cass Smith.

DISTRICT PRIZES FOR CATTLE.

Dairy cow, with special reference to milking.—First prize, H. Ward, Hawsker; second, J. Kerr, Lythe.
 Two yearling steers, which have been the property of the exhibitor six months prior to the show.—First prize, J. Plews; second, T. Beeforth, Sneaton.
 Pair of working oxen.—First prize, T. Watson, Sneaton; second, M. Wellburn.
 Cottager's cow, of any breed, with special reference to milking.—First prize, W. Galloway, Newholm; second, T. Lynass, Goldsbro'.

SHEEP.

LEICESTERS.

Shearling ram.—First and second prizes, I. and E. Tindale.
 Tup lamb.—First prize, W. S. Gray; second, T. B. Scoby, Rook Barugh.
 Pen of five ewes, having reared lambs in 1870.—First prize, E. Corner, Broad Ings; second, J. Elliot.
 Pen of five gimmer lambs.—First prize, W. S. Gray; second, T. P. Scoby.
 Pen of three tup lambs, bred by exhibitor.—First prize, E. Corner, Broad Ings; second, W. S. Gray.
 Two-shear or aged moor tup.—First prize, W. Rudsdale, Dauby; second, C. Smith.
 Shearling moor tup.—First prize, C. Smith; second, W. Rudsdale.
 Moor tup lamb.—First and second prizes, W. Rudsdale.
 Pen of five moor ewes, having reared lambs in 1870.—First C. Smith; second, W. Rudsdale.
 Pen of five moor shearling gimmers.—First prize, W. Rudsdale; second, C. Smith.
 Pen of five moor wethers, two-shear or upwards, bred by exhibitor.—First and second prizes, J. Peirson, Goathland.

PIGS.

Boars of any breed, over six months old.—First prize, G. Chapman, Seamer; second, M. Gray.
 Sow or gilt of any breed, over six months old.—First prize, J. Thompson, Seamer; second, G. Chapman.
 Boar of any small breed, over six months old.—First prize, J. Windle; second, G. Chapman.
 Sow or gilt of any small breed, over six months old.—First prize, R. Bowman, Pickering; second, G. Chapman.
 Cottager's pig, the owner not keeping more than one cow.—First prize, Joseph Ward, Woodlands; second, J. Young, Whitby.

NORTH LANCASHIRE AGRICULTURAL SOCIETY.

MEETING AT BLACKPOOL.

The attendance of visitors on the first day was not large, although the proceedings were unusually interesting to agriculturists, but on Wednesday the showyard was crowded with visitors, not only from Blackpool, but also from the neighbouring districts.

The judges of Shorthorns were W. Torr, R. Smith, and W. Key. The Shorthorns were well represented for a country exhibition such as this, and the class for aged bulls drew a good muster. Bolivar received the silver medal for the best Short-horn aged bull and Mr. Statter, rivalling Mr. Brierly in this

class, received second place, together with a silver cup, for the best three Shorthorns in the yard. A year-old bull belonging to G. Hunt, of Frenchwood, Preston, was placed first in the class for bulls above one and under two years old, for which a silver medal was offered. Mr. Statter's Prince of Thorndale came in second, out of a good contest among 17. The winner of the first medal was a roan cow, exhibited by Mr. W. Bradburn, of Wednesfield, Wolverhampton. The Rev. L. C. Wood's Miranda 10th was placed second; but when judged in the class for cattle of any breed, she gained greater distinction. Mr. Bradburn, of Wolverhampton, for best heifer not exceeding three years, took first and second prizes. For heifers not exceeding two years, Messrs. Statter, junior, and Brierley once more divided honours, Mr. Brierley being awarded the first medal, Mr. Statter the second, whilst Mr. Bradburn had to content himself with a "highly commended." Mr. Baxter, of Skipton, stepped in at the class for heifer calves, taking the chief award, leaving Lady Pigot, Messrs. Brierley, Statter, Farrar, and Hunt to settle the remaining positions. A special prize for the best Shorthorn bull for the locality was awarded to Colonel Clifton, Lytham Hall. For the best bull, two years old and upwards, two silver cups were offered, the first falling to Mr. Statter, jun., of Stand Hill, Whitefield, Manchester, for Thorndale Duke, four years old. There were nine entries in this class, and Duke of Thorneyholme, a three-years-and-ten-months, was placed second. The silver cup offered for the best bull, above one and under two years, was won by Mr. Geo. Hunt, Frenchwood, Preston, with a one-year-old, Knight of the Shire. He also secured the silver cup given for the best calf. In the competition for calves under twelve months, the first prize was given to Mr. Benjamin Baxter, Skipton, Yorkshire. For aged cows, the Rev. C. Wood, Singleton Lodge, Kirkham, received the first premium, Miranda 10th; Mr. J. Farrar, of Thorneyholme, second. For heifers not exceeding three years, in calf or milk, and for the best heifer not exceeding two years, Mr. Brierley, Mr. Statter, and Mr. Hunt again fell together, but for heifers not exceeding three years Mr. Farrar, of Thorneyholme, wrested the first place from both the former. Mr. Statter was placed second with a roan, Rosalea, verging on three years. Yorkshire took the prize for the best heifer calf, by Benjamin Baxter, of Skipton, Lady Hudson Baxter second.

The judges of Horses were Thomas Gibbons and William Kendal. "Laughing Stock," the hunter stallion, was awarded the first prize and the silver cup; having now won this piece of plate three years in succession, will secure it absolutely for his owners, C. and J. Moffat, at Kirklington

Park, Carlisle. For the best roadster stallion Lund and Redman, of Castle Yard, Preston, got the silver cup for a four-year-old, "Octavian." For the best draught stallion the first cup was given to James Forshaw, of Burley-in-Wharfedale, Yorkshire, for "Nonsuch," and the second to Abraham Cooke, of Much Hoole, Preston, for "Young Ploughboy." The best brood mare for draught purposes was shown by R. C. Richards, of Clifton Lodge, Preston. Thomas Fox, of Avenham Hall, Singleton, received the first medal given for the best mare for breeding hunters, and Mr. Statter, of Whitefield, the second. For the best brood mare for harness purposes, Mrs. Porter, of Layton Hall; T. H. Miller, Singleton Grange second. Pairs of draught horses, Mr. Brierley, of Middleton, first and second; Mr. Brierley also won the first and second prize in the next class for the best draught mare or gelding. Mr. Statter secured the first place for three-year-old gelding or filly for draught purposes, and J. W. Holt, Wood-road, Bury, second. Three-year-old geldings or fillies for hunting purposes, E. Twisaday, of Thwaite Moss, Rowland, and A. Aglionby, Esthwaite Lodge, Hawkshead, were first and second. J. McNeil, Faroo Hall Farm, near Fleetwood, received the prize offered for the best gelding for harness; H. Kirkham, Peel Marton, Blackpool, that for draught purposes; J. W. T. Tyler, of Esthwaite Lodge, Hawkshead, the cup for the best gelding for hunting purposes, W. Jackson, of Singleton, second; for two-year-old geldings or fillies for harness, the medals for first and second were won by the latter-named gentleman; W. Kirkham, of Stahine, Poulton-le-Fylde, the best yearling colt or filly for draught; and R. C. Richards, Clifton Lodge, Preston, the second. In the same class, for hunting purposes, W. Roberts, Thorneyholme, Burnley, gained the premium; and in that for hunters, Mrs. Shorroek and Sons, of Wharles; E. Jennison, of Ridge Farm, Pilling, medal for best colt for draught; W. S. Hodgson, of Thistleton, for hunting; and J. Nickson, of Lytham, for harness purposes; roadster mares, J. Scholefield, of Greenroyd, Rochdale, first, and W. Roberts, of Thorneyholme, Burnley, second; G. Wightman, of Preston, first for col above 13½ and not exceeding 15 hands; best gelding for dray purposes, J. Pearson, of St. Michael's Hall, Garstang, and best filly for the same purpose, R. Walsli, jun., of Thornton. Sheep were not numerous. The principal prizes were taken by T. H. Hutehinson, of Catterick, Yorkshire, who, with W. Norman, of Aspatria, Cumberland, and Mrs. Johnson, of Frodsham, divided the awards in the classes of Leicester, Shropshire, and long-wooled sheep. Pigs were also an exceedingly spare show, and P. Eden, of Salford, appropriated the first prizes in all the classes.

SALE OF MR. T. HORLEY'S SHROPSHIRE SHEEP.

AT THE FOSSE, LEAMINGTON,

ON MONDAY, JULY 25, BY MR. W. G. PREECE.

At the luncheon Mr. JOHN CANNING said: The true origin and pure lineage of this flock, and its claiming for its progenitors some of the highest-priced celebrated animals, and most noted Royal winners referred to in the records of Shropshire sheep, were indisputable.

Mr. R. H. MASEN eulogised the Shropshires exhibited at Oxford, and the integrity of the Judges, of whom he was one.

Mr. HORLEY compared the past and present exhibition of South Downs and Shropshires at the Royal shows, and pointed out the superiority of the latter.

The following are the prices realised:

RAMS.—1, Mr. Knight, 17 gs.; 2, Mr. Hand, 15 gs.; 3, Mr. Webb, 11 gs.; 4, Mr. Robins, 13 gs.; 5, Mr. Walker, 20 gs.; 6, Mr. Moore, £8 18s.; 7, not sold; 8, Mr. John Ford, 9 gs.; 9, Mr. Umbers, 10 gs.; 10, Mr. Harris, 8 gs.; 11, Mr. Cox, 19 gs.; 12, Mr. Knight, 16 gs.; 13, Mr. Aston, 11 gs.; 14, Mr. W. Wood, 14 gs.; 15, Lord Lowe, 13 gs.; 16, Mr. Bromfield, 8 gs.; 17, not sold; 18, Mr. Calcott, 8 gs.; 19, Mr. Umbers, 15 gs.; 20, Mr. Loggin, 14 gs.; 21, not sold; 22, Mr. Griffin, 6 gs.; 23, Mr. Lowe, 7½ gs.; 24, Mr. Hand, 8½

gs.; 25, Mr. J. Palmer, 7½ gs.; 26, Mr. Webb, £6 16s.; 27, Mr. E. Greaves, M.P., 10 gs.; 28, not sold; 29, Mr. H. J. Sheldon, 19 gs.; 30, Mr. Perkins, 7 gs.; 31, Mr. Jordan, 7 gs.; 32, Mr. Forman, 9½ gs.; 33, Mr. Bromfield, 7 gs.; 34, Mr. Birch, 8 gs.; 35, Mr. Reading, 10 gs.; 36, Mr. Hamer, 6 gs.; 37, not sold; 38, Mr. Burbery, £6 16s.; 39, Mr. Draper, 10 gs.; 40, Mr. Harwood, £7 17s.; 41, Mr. Palmer, 10 gs.; 42, Mr. Hand, £7 17s.; 43, Mr. Webb, 5 gs.; 44, Mr. Walker, £35 14s.; Mr. Horley, sen., 10 gs.; Mr. Knight, 12 gs.; Mr. Staite, 10 gs.

EWES.—1, Mr. Watson, £17 10s.; 2, Mr. Watson, £13 2s.; 3, Mr. Umbers, £12 10s.; 4, Mr. Umbers, £13 2s. 6d.; 5, Mr. Umbers, £13 2s. 6d.; 6, Mr. Botterill, £13 2s. 6d.; 7, Mr. Botterill, £13 2s. 6d.; 8, Mr. Botterill, £13 2s. 6d.; 9, Mr. Robins, £11 5s.; 10, Mr. Reading, £11 17s. 6d.; 11, Mr. Umbers, £11 5s.; 12, Mr. Reading, £11 5s.; 13, Mr. Webb, £9 7s. 6d.; 14, Mr. Umbers, £5; 15, Mr. Knight, £14 7s. 6d.; 16, Mr. Robins, £13 2s. 6d.; 17, Mr. Knight, £12 10s.; 18, Mr. Knight, £13 2s. 6d.; 19, Mr. Umbers, £12 10s.; 20, Mr. Knight, £13 2s. 6d.

THE ROMFORD SEWAGE FARM.

The Maplin Sands scheme for utilising the sewage of London has come to grief. The promoters have failed to carry out the project, and the Board of Works has declared the £25,000, lodged as security, to be forfeited. And so on Tuesday last the well-known Mr. Hope got up a party to inspect another sewage farm which he has recently established near Romford. The visit was arranged with more particular reference to the Metropolitan Board of Works, and consequently the unexpected death of the Chairman, Sir John Thwaites, on the day previous, threw something like a shadow over the proceedings. Otherwise the occasion was just such a gala day as people feel ready to treat themselves to at the fag end of the season. There was a team of greys, backed by two or three more pairs, awaiting the arrival of the mid-day train from town. There was an enjoyable drive of some three miles or so to Britton's, a walk over the farm, and a champagne luncheon laid out in a quaint old barn, duly decked with bright glass, fresh flowers, and national banners. Then every patch of crop was headed with a card showing when it was sown, how it had been gathered, and what it was worth. And from such particulars the critics were left very much to draw their own conclusions, for nothing could be less obtrusive than Mr. Hope's manner or more in good taste than the way in which he left the experiment to tell so far its own story.

And the company, if more congenial than captious, was certainly well qualified to pass an opinion on that they saw. There was Mr. Chadwicke, "the father of modern sanitary science;" there was Mr. Rawlinson, who "sat for eight years on a Royal Commission;" and Mr. Bailey Denton, "one of the most eminent of agricultural engineers;" and Col. Hogg and Mr. Adams, of the Metropolitan Board, with Mr. Grant, the second engineer of the works; while the local division of Essex agriculturists was headed by Sir Thomas Barrett Lennard, who is quite willing to aid any progressive movement in his own neighbourhood.

A report of the day's doings will be found in the following page, to which it may be as well to add a few particulars here. The farm at Britton's, with an old but unoccupied manor house upon it, is about two-and-a-half miles from Romford; it consists of some 110 acres of poor land, that would look to be worth, as times go, perhaps 30s., or say £2 an acre. Of this, the necessary arrangements having been made with the local Board of Health, Mr. Hope entered on possession at Michaelmas last under a seven years' lease, by which he agrees to pay a rental of no less than £900 a-year; that may be put as £300 for the land and £600 for the sewage, which, with the cost of carriage, would raise the gross rental to close upon £10 an acre. We can thus far go thoroughly with the Chairman of the Romford Board in congratulating the rate-payers on "the excellent tenant they had found," although we can scarcely see, with such figures before us, how "they give him all the manure he requires." The facts, nevertheless, are sufficiently strong and suggestive. Mr. Hope is by this time a man of considerable experience, or, as the phrase runs, one who "should know something of what he is about." Looking, then, to the sewage of Romford with an hungry eye, he seems to have determined to take it on almost any terms and almost any where; for we believe he tried for one or two other farms before he faced so uninviting a prospect as that offered him at Britton's. Anything less like a show

place it would be scarcely possible to imagine; but the new tenant lost no time in turning it to account, and probably nobody ever did so much in so short a period. The growth not only of crops but of weeds is something prodigious; for sewage on a soil, necessarily not very carefully prepared, would threaten to produce an abundance of everything. The tidy farmer would consequently conceive something of a prejudice in the outset, but he might look further into the business with some possible advantage. The system adopted at Britton's is that of garden, or as it appears just at present, experimental farming. As we have mentioned the crops are cultivated in mere patches, and with a view of supplying the vegetable more steadily than the grain markets. There are, of course, continual cuttings of ryegrass, while other new grasses are being introduced; there are peas selling clear, with the straw left, at £15 per acre, but then, as one of the home-bred farmers had it, "nobody else about here has got any peas." Carrots make £41 per acre, or £20 per acre profit; cabbage of all kinds flourishes exceedingly, some sorts reaching to a marvellous size; beet-root is estimated at £80 per acre, and oats and barley sown a fortnight since will be ready to cut in October.

And so the rent of land rises from £2 to £10 per acre, manure included be it remembered; while the farmer in return will get more crops and bigger yields than ever. Nevertheless the Maplin Sands Company fails; and "Farmer So-and-so, near a town," as Mr. Mechi puts it, "declines to have the nasty stuff on his land, and so has obstructed its use." But these Professors all speak in the same strain. Mr. Rawlinson "had been met with furious opposition, bigotry, and prejudice,"—"the result of such men failing to see in the system what he had seen," and so forth. Mr. Johnstone, M.P., found "we had been wasting he did not know how many hundreds of years something we ought to have made a profit of;" and Mr. Chadwicke "knew it was a long time ago when he predicted that that waste manure, which in towns meant pestilence and disease, would in the agricultural districts mean high and enhanced production." This all no doubt sounds prettily enough, but what does it all come to? Mr. Mechi says the farmers "have obstructed the use of sewage," but has Mr. Mechi ever put them in the way of properly, that is profitably, using it? Of the many schemes he has in turn advocated so strenuously, where would the farmer have been had he adopted them? Mr. Rawlinson complacently complains of the prejudice of people who could not see so far as himself, but then what did he see during the eight years he sat on that famous commission? Or, is the problem even now quite so satisfactorily solved as he would have us believe it to be? If it is, from all we remember of Mr. Rawlinson and his sayings and doings, he has solved it continually, not precisely by these same means, during the last eight or eighteen years. Mr. Chadwicke's prophecy may of course still eventually turn out to be true; and gentlemen, like Mr. Johnstone, who know the least about the matter, are the first to declaim of the waste, and the profit, and all that sort of thing, "which ought to be understood by every Englishman."

The world, that is the world of practical men, is coming to pay less and less heed to all this mere talk of "nasty stuff and obstructive farmers"—of "bigotry

and prejudice"—and of men declining to waste their time and money at the bidding of some bystander. Mr. Hope, however, occupies a very different position. As he himself says, he has come in for "some rather severe criticism from his neighbours in Essex;" and great crops have, alas, been too often before now but the forerunners to failure in sewage farming. But should Mr. Hope succeed, his efforts and his example will do far more to further the cause than all the Commissions, windy harangues, or direct attacks on the farmers to which the country has now been periodically treated for so many years past.

On Tuesday, August 9th, a party, amongst whom were Mr. E. Chadwick, C.B., Mr. R. Rawlinson, C.B., Mr. J. G. Fairshaw, J. M. Grant, C.E., Col. Hogg (Member of the Metropolitan Board), Mr. A. Johnstone, M.P., Mr. E. B. Eastwick, C.B., M.P., Mr. T. W. Keates, F.C.S., Mr. J. H. Lloyd, Sir T. B. Lennard, Mr. J. Bailey Denton, C.E., Mr. B. H. Adams (Metropolitan Board), Mr. R. Morgan, C.E., Mr. H. Corbet, Mr. B. Gooch, Mr. A. Tod, Mr. C. Freeman, and a majority of the members of the Romford Local Board of Health were invited by Mr. W. Hope to visit Britton's Farm, Hornchurch, which has been purchased by the Romford Local Board of Health for the disposal of their sewage by irrigation, and let to the well-known Mr. Hope, of the Lodge Farm, Barking. The object of the visit was to inspect the result of the application of sewage to the land and crops. On the arrival of the company at the house they at once proceeded to look over the farm. One of the first crops to which attention was drawn was a piece of Italian rye-grass, sown on the 19th March, since which four crops have been cut, averaging $7\frac{1}{2}$ tons per acre, and sold at £1 per ton. Close by was a piece of Dalmahoy potatoes, planted on the 2nd April, which were producing $1\frac{1}{2}$ cwt. per rod, and worth about £25 per acre. Some of these were very fine. New Rose Kidneys were also shown, which produced ten or twelve at each root, many being from four to five inches in length. Some beans and peas sown on the 2nd April produced—the former £9 and the latter £15 per acre without the straw. Another piece of rye-grass, sown 9th April, will be ready to cut for the fourth time in a few days. Next came some Droona yarns, planted on the 6th June, adjacent to which were some very large Jersey cabbages. A little further on was a specimen patch of clover, sown on the 23rd May, which was very thick and about a foot high. Adjoining were about four acres of transplanted mangold-wurtzel, while another crop of the same kind exhibited some very fine roots. Close to these was a crop of parsnips, sown on the 25th April, which averaged from $1\frac{1}{2}$ to 2 inches in diameter, and of a proportionate length; also a fine crop of cauliflower, planted on the 19th July. Some fine carrots, crimson beetroot, and runner beans, are also growing. In addition to those already named, there were some fine pieces of bunching and other kind of cabbages which promised some good crops, having been planted about the middle of June. A strip of a newly imported kind of grass called *Bromus odoratus Australicus* was sown on the 4th June and was cut on the 1st of August; this, if the trial proves successful, is expected in a great degree to supplant the Italian rye grass, being a perennial and lasting much longer than the latter. After this comes a fine crop of maize, for ripening, sown on the 2nd June, averaging from 3 feet to 4 feet in height, some heads reaching nearly 5 feet. A strip of American oats stands very thick, and carries a great head; as this cut is said to produce about 20 qrs. per acre. Close by is a crop of intermediate carrots, about 4 acres in extent, sown on the 4th April, a month later than usual; some of these have already been sent to market and produced £41 per acre, while those still growing have been sold on the ground at £21, and are to be cleared off by the purchaser in a few days. The above may be considered as the principal crops, but there are many others, most of which have been put in on trial, and are not large in extent, but all appear to be more or less successful. Each crop is labelled, showing the time of planting, and the results that have accrued.

With regard to the manner in which the sewage is put upon the land, it is first pumped to the roof of the engine-house

and then conveyed in sheet iron troughing to about the centre of the farm, where it branches off in all directions, there being outlets at short intervals which can be opened for the discharge of sewage, or plugged up, or even set so as to allow of a certain quantity passing out, as required. The liquid eventually flows into channels of cement or earth, and thence again into smaller off channels, which run along the crown of the beds, the ground having been originally laid out in proper slopes. These smaller channels are dammed up as required, and the sewage then overflows the beds. Of course there is a large amount of effluent water which percolates through the soil, and this is carried back into the tank in a state of purity by means of drain pipes laid at a depth of 5 feet from the surface and 150 feet apart.

The party having completed its survey, adjourned to luncheon at the invitation of their host, after which some little time was spent in speaking on the subject they had just been testing.

Mr. JOHNSTONE said, as the representative of many of them in another sense and in another place, he would ask them first to drink the health of their host. Having spent such a profitable and interesting morning as he had, he thought this system of sewage irrigation was really a thing which ought to be understood by all Englishmen as much as any question of reduction or social economy. Here we had been wasting, for he did not know how many hundreds of years over, something we ought to have made profit of; and now that the country was full of hungry mouths and bellies, any means of filling them ought not to be passed over. This system of irrigation was a grand means of getting rid of a nuisance, and a great source of natural wealth as well (Hear, hear). Of all the men who had given this thing a push up, their host was the greatest, therefore he would ask them to drink the health of Mr. Hope (applause).

Mr. HOPE, in thanking Mr. Johnstone and company for the toast, briefly alluded to the gloom which had been cast over so many of his friends by the death of Sir John Thwaites, the chairman of the Metropolitan Board of Works, which had occurred on the previous morning. He had hoped to have seen him present on this occasion; he had hoped to have had the opportunity of showing the members of the Metropolitan Board how easy the system was; and also of making them acquainted with some of the Essex landowners and farmers, many of whom he hoped would be their future customers. The process was very simple, and he thought there could not be any doubt about the result now. Some of his neighbours had rather severely criticised him, and, though he had spent a good deal of money, he thought it would all come right in the end. Before breaking up, he thought he ought to present to them one gentleman who had assisted as much as any one in carrying out the Main Drainage Works of London; he referred to Mr. Grant, the second engineer to the Board of Works. His name perhaps had not been so prominently before the public as that of Mr. Bazalgette, but perhaps he had done the most work. All those who knew Mr. Grant and his attainments would bear him (Mr. Hope) out that there was not an abler civil engineer. He gave them the health of Mr. Grant and the success of the Main Drainage Works of London.

Mr. GRANT, after thanking the company for the honour placed upon him, and referring to the Main Drainage Works of London as the largest that have been executed in any part of the world, said they had not yet been able to utilize to any extent that which they carried from the metropolis; but the works had been so executed that it might be added to them whenever the time for solution of the difficulty had been arrived at. What they had seen in the morning had helped to so in some degree. Mr. Grant concluded by briefly referring to the death of Sir J. Thwaites.

Mr. RAWLINSON, in proposing the health of Mr. Edwin Chadwick, the father of modern sanitary science and the consistent promoter of sewage irrigation under certain disadvantages, said they had also seen it a very great success. He was speaking in the presence of the members of the Romford Local Board, and he would remember the contest they had as to whether that land should be purchased for the object contemplated. He also remembered some very curious arguments being advanced on that occasion, and he would now appeal to the members of the Board as to whether the opinions he gave them had not been more than fulfilled under the arrangements

of Mr. Hope? This, he believed, the beginning of one of the greatest social movements of the present day. He had been met with furious opposition, bigotry, and prejudice; but he should not like to say that the man who opposed his way of thinking did that which he conceived to be false, did it from dishonest motives, but he would be inclined to believe that the opposition was the result of such men failing to see in the system what he had been able to see. But, apart from all this, they were that day met under the hospitable roof of their friend Mr. Hope; and most heartily did he wish him success.

Mr. CHADWICKE, in reply, said it was a great gratification to him to see that which was the pestilence of their towns—the waste of manure—by this farm made profitable. He hoped it was a long time ago when he predicted that that waste manure which in towns meant pestilence and disease, would in the agricultural districts mean high and enhanced production. He was quite sure that they should see as they had seen that day that that waste which desolates and lowers the condition of the population would in the agricultural districts give the highest amount of production of food that would elevate the condition of the people. He believed that this movement, of which they had seen so brilliant an example that day, would lead to an enormous increase of the productive power of the soil, not only in this country, but through the example set to the countries abroad. It required great labour, great skill, great power; and he thought that the power had certainly, as far as he had seen, been displayed by their host. It had given him pleasure to be present on this occasion; and he hoped, for the sake of the example, that it might have due support and due success.

Mr. HOPE next asked the company to drink the health of Mr. Rawlinson. When the Government sent him down to examine into the complaints of the ill-used people of Romford (laughter), his friend Mr. Hawes and the rest of the local board were saddled with so many heavy rates that, if he (Mr. Rawlinson) had not kept his head cool and his judgment sound, he would very likely have fallen into the views of these people, and would have said it would never have paid to pump the sewage on to this farm; therefore, if anything had been gained, it was much more due to Mr. Rawlinson than to him (laughter). In his official position he was called upon to furnish opinions, and he did so with an unerring decision, which was remarkable.

Mr. RAWLINSON, in responding, said he could not take credit for what Mr. Hope tried to put upon him, but he would take credit for having striven to understand the question. In the first place he would not say that he did understand it, but that he had striven to come to an understanding. As far as he had studied the question, as to whether sewage ought to be treated as the waste product it had been treated or whether it ought to be treated as they had seen it treated that day, he had come to the conclusion that the proper place for sewage was the land. He had been a member of several royal commissions, and sat upon one for eight years which had been appointed to inquire into the best means for utilising town sewage. On that commission the Lords, Commons, chemistry, medicine, and engineering were efficiently represented, the latter branch by Mr. Austin and himself. During the eight years they examined all the places in Great Britain where sewage had been or was attempting to be utilised. They reported and drew up conclusions, in which they said town sewage could be utilised; circumstances might so intervene as to prevent its being utilised for the profit of the town, that was

direct money profit, but it should always be utilised because of the very great profit to the community at large. Romford was so situated that they were able to get rid of their sewage without its being any burden to the community; and some of them would no doubt remember at the inquiry he held he told them that if proper means were taken to utilise sewage on the land, instead of being a burden as many of them feared, it would relieve their rates, get rid of litigation, and put them in a position of comparative comfort. He had sitting at his right hand one of the most eminent agricultural engineers in England, and this movement, he was very happy to say, was supported by him. From what they had seen that day he did not see any need fear the result, but he sincerely hoped that Englishmen would learn a lesson and plain common sense, and that they would do their best, shoulder to shoulder, not to bolster up a delusion, not to try any tricky dodge, but to take that which poisoned their towns, contaminated their rivers, which produced nuisances and disease and discomfort, and do with it what they were doing at Romford, which was an example that all England ought to see. He hoped they would soon see sewage generally applied to land, and have that done which brought produce and food to the multitudes of our country. He then gave the health of Mr. Bailey Denton.

Mr. DENTON happened to be a colleague of Mr. Hope upon a committee which necessitated his presence on this farm occasionally; the first of those visits was several months ago, and he would declare as a man of considerable experience in agricultural matters, that he never before had seen a more forbidding instance or a more forbidding task for any man to undertake than that which Mr. Hope had on this farm set himself. Now, he came here to-day, after two previous visits, when he felt much on account of his friend, as he had the most gallant spirit, would be beaten—not vanquished immediately—but he thought he would not do what he saw to-day had been accomplished. He feared the weeds would over-grow him, and that moreover the arrangements for the delivery of the sewage were not as perfect as they ought to be; he felt that his friend would be encumbered with difficulties which he could not rationally overcome, but he was bound to tell them now that he never walked over a farm on which there were more certain instances and proofs of success. He saw that expanding growth which told him that sewage properly applied would do all that they expected, and to-day's experience was most certain of its success.

Mr. HOPE thought it would be ungrateful if they broke up without drinking one more toast. He begged to propose the "Health of the producers of the Romford sewage, coupled with the name of Mr. T. Hawes as Chairman of the Romford Local Board of Health" (cheers).

Mr. HAWES, in thanking the chairman and the company for the toast, said, perhaps he was an old man in years, but he was a young man in sewage, and he quite agreed with Mr. Denton, that its value and benefit was incalculable. He maintained that sewage utilization was still in its infancy. He certainly had to congratulate the members of the Board and the ratepayers of the town of Romford in having obtained such an excellent tenant as they had. He felt that had they searched England through they would not have found a more efficient man than Mr. Hope to carry the farm on. He must also say one word upon the Board; he thought their tenant would say they were the best landlords in England. They not only let him the land fairly, but they gave him all the manure he required; that was more than ever he knew any one else to do.

The company then broke up.

A SHEEP BREEDER'S STORY.

A great deal of information is often conveyed in the records of improvements effected in the plants and animals that minister immediately to the service of man, even to those who are not directly concerned in the experiments detailed. A farmer will pick out from the description of some change that has been brought about in a variety of wheat suited to special circumstances, a principle that will assist in breeding sheep, and the horticulturist will rarely peruse the manner in which the plastic elements of animal life are moulded to the will of

the breeder of horses, cattle, sheep or pigs, without perceiving an analogy that may be applied with advantage in his own sphere. Under this impression, therefore, of the benefits to be derived from it, even by those who are not immediately concerned in the facts as breeders, we now intend to narrate the story of the Improved Kentucky Sheep, as we glean it from certain agricultural reports of the American Government. The story of the Improved Leicester Sheep has been told over and over again in England, and the prodigious in-

crease in the weight of mutton produced in England since Bakewell began his experiments, shows with what result. The story of the Kentucky sheep is now being impressed upon the American agricultural mind, and is leading to similar results. We have also our breeding tradition, of which the Camden Merino stands first.

The native sheep of Kentucky are hardy and prolific; but like all native kinds they are small, fatten slowly, and yield little wool. Though the general diffusion of them proves their adaptation to the circumstances in which they are placed, yet it is well known that the tendency which all animals have to adapt themselves to climate and subsistence may be materially modified and controlled by judicious crossing, and that the improvement made by these crosses becomes permanent, and thereby stamps distinct varieties of the same class of animals. Chiefly by these influences (crosses, climate and food) the British varieties of sheep have been produced; and their distinctive features, in congenial localities, are as indelible as those of the stocks from which they were produced. In the same manner, no doubt, still other varieties may be produced; nor does there appear to be any insuperable difficulty in blending, in the same animal, any number of valuable qualities which are not actually antagonistic to each other. We have been supplied with certain materials to be combined at our pleasure within certain limits. The work might have been done for us; but we have been left to do it for ourselves, as the occasion required, and the desired development of human skill and character in the operation has followed.

Owing to the tendency of all improved breeds of domestic animals to relapse to their original status, when they are neglected or abused, they must be kept up. Judicious crossing and selection which is required to bring a variety to any given state of perfection, must of course be maintained. Mr. Robert W. Scott, to whose skill the "Improved Kentucky Sheep" is due, seeing nothing in the existing sheep of the district to suit his requirements as a grazer, determined upon beginning to graft upon the original stock something that would in time come nearer to his standard. None of the British breeds would suit his purpose—the Cotswold being too delicate when young to bear exposure to the wet season; the South Down having too short a fleece, and the Merino being too small. Acting on these impressions the improver informs us that he "has perseveringly endeavoured for over thirty years to combine in the same animal the hardness and prolific quality of the native sheep, the size and weight of fleece of the Cotswold, and the symmetry of form and delicacy of mutton of the South Down; and also to combine in the same fleeces the weight and length of the Cotswold, with the thickness and softness of the Merino."

Mr. Scott's *modus operandi* was as follows: In the beginning about thirty ewes were selected from a flock of unimproved native sheep. Amongst these was turned a very large and fine Saxony or Merino ram, the object being in the offspring to increase the thickness of the wool and to impart fineness to the fibre. This step was thought advisable before uniting the coarse fleeces of the native sheep with the coarse and still more open fleeces of the large imported varieties, and the effect was satisfactory. The ewe lambs of this cross were put, on the first of October, after they were one year old, to an imported Bakewell ram, of large, full, round carcase, and a heavy fleece of long wool. The ewe lambs of this latter cross were also, in due time, put to an imported Southdown ram, of large size and high standing, the object now being to infuse into the progeny that active, sprightly and thrifty disposition, and highly-flavoured and beautifully marbled mutton for which the Southdowns are so justly celebrated. This object was also successfully obtained. The wethers of this cross were the delight of the epicure, while the value of the fleece was not diminished; as much being gained by increasing the number of fibres to the square inch as was lost in the length of them.

A very doubtful experiment was next tried, but the operator speaks well of the result. A ram, three-fourths Cotswold and one-fourth Southdown—a large, hardy, active sheep, with a thick and heavy fleece, was put to this progeny. The two next crosses were made by pure-blood Cotswolds; and the next by a "fine full-blood Oxfordshire ram (a Down) of remarkable softness and silkiness of fleece." They were all animals with short necks, round barrels, broad backs, and full briskets. They seem to have added to the flock still more

weight of carcase and fleece; while the texture of the latter and the delicate flavour of the former were not perceptibly impaired, and, therefore, in the next fall the flock was divided between two full-blood Cotswolds.

This sounds like the pranks of an American tapster, in the concoction of one of the slang drinks of that country. The effect, however, is well spoken of by Mr. Scott, who says, "My success in the Improved Kentucky sheep has been great, and the sale and diffusion of them wide." It must have been amusing to have glanced at the flock at this stage, with a view to detect the traces of these crosses. We are informed that they were all perceptible (blended, but still manifest) in the character and habits, as well as in the carcase and in the fleece; but in some a particular cross predominated, which was naturally to be expected, on account of the recentness of the improvement. That the blending might be more entire, a cross with foreign sires was avoided the year following (1854), but sires were selected from the "Improved" flock. "In the fall of the year 1855," says Mr. Scott, "in order to carry out the same design, I tried chiefly to a mixed ram, whose pedigree showed Cotswold, Oxfordshire, Teeswater, and South Down blood." The italics here are our own, for it seems improbable that the object alluded to would be obtained by such means; still the breeder was perfectly satisfied with the result. Something further was done in 1856. A fine large Cotswold ram was used, and year following selected ewes put to him and a ram of mixed blood. This gave a more complete uniformity to the progeny—the ewes crossed with the Cotswold evincing a preponderance of South Down and Merino, those put to the mixed-blood ram exhibiting a preponderance of Cotswold qualities. The rams used in 1855 and 1859 were from his own flock, with a view of fixing the qualities gained, and more entirely blending the blood. "By this time," says Mr. Scott, "these sheep were as essentially alike and uniform, and maintained their identity and imparted their qualities as surely as sheep of any other breed."

Since 1860, well selected rams of his own breeding, together with those of Leicester and Cotswold blood, have been used in such a manner as to impart some valuable qualities either to the fleece or to the carcase, or to the constitution of the progeny; "pure Cotswolds, superior in form, size, and fleece, being raised in 1863 and 1866."

Now let us touch slightly on the economic results of this preparatory blending. One object was to get an animal which should be adapted to the climate and subsistence of the West and South. Was this done? In a new country the housing of sheep is generally too expensive a process to be practised. Therefore a class of sheep is wanted that will live in the open air, and call their subsistence under ordinary conditions. Sheep may be so adapted to a bad climate or to a poor soil, as to get the greatest amount of good out of it. Where some would starve they thrive. Thus the sheep required was one that would face the bleakest winters and the hottest and driest summers without any protection, except that which nature had given them. The Improved Kentucky apparently have fulfilled these conditions. If it be allowable to twist the meaning of an old proverb, we would say "like good wine they need no bush." They bear the climate unaffected by disease. They are free from cough, snuffle, foot-rot. In springs and summers of excessive rain, clothed to the knees and to the ears by a thick, long, and impenetrable fleece, they bid defiance to the wind, rain, and snow, and seem at all times to be comfortable and sprightly. In summer they are changed from pasture to pasture, and they devour almost every green weed. In winter short grass is all that they require, and if that cannot be afforded them they will take the corn fodder or straw with the cattle, and thrive well upon it, though at lambing time, like other sheep, they require a more succulent diet. They get on without grain or hay.

Then as to their thrifty and prolific character, a good deal is to be said. The practice of course is to breed only from the most healthy, symmetrical, and well-wooled ewes; the rest are fed as usual, and fatten with great rapidity. No ram is ever used which has the slightest taint of disease. By such care in the selection of parents, and by the frequent crossing of animals not even remotely related, and also by crossing with rams of different breeds (which is against the received opinions of the majority of breeding authorities) without making noted

crosses (which is a saving clause), "a degree of health and vigour has been infused into this breed which," we are told, "is not surpassed in any other." The native ewes, under favourable circumstances, very frequently produce twins, and rear them well. The improved sheep are quite as prolific. Mr. Scott says: "I have often, when the flock was smaller than at present, raised one-third more lambs than there were ewes, and have rarely failed to raise as many lambs as ewes even under unfavourable circumstances. As thrifty and wool-producing sheep they are preferred to the Cotswold in Kentucky and in the West. Yearling rams will weigh 174lbs., nine months old lambs 104lbs., two-year-old rams 224lbs., same age ewes 180lbs., fed on grass only. Then as to the weight and character of fleece the evidence is conclusive on the point of "improvement." The fleeces of these sheep vary from eight to fifteen pounds—the whole flock of over one hundred breeding ewes having averaged over eight pounds of merchantable wool, free from burrs, tags, &c.; and though not washed on the sheep's back, still clean enough for domestic manufacture. Though the fleeces of these sheep are not perfectly uniform as to length, thickness, and fineness of fibre, still there is a general uniformity, and the diversity is said to be of no practical disadvantage. Their wool is longer than that of any sheep, except that of the Cotswold family, and is equal in length to that of many individuals of that family, while it greatly excels the wool of the Cotswold in fineness and softness of fibre, and in the number of fibres to the square inch. In some individuals it is wavy or

curly, but is never harsh or wiry. Except the face and the legs below the knees, the whole body is covered with a close and compact fleece, which, when full grown, leaves no open line on the back, as with the Cotswold; but gives a perfect protection to the sheep, and causes them to present a smooth, handsome, and portly appearance. The wool is lustrous, and dyes, cards, and spins well, and is much approved by manufacturers. The testimony as to the merits and value of these sheep appears to be very strong. We do not see any quotation of the value of the wool, but a manufacturer is reported to make the following statement: "When we take into consideration the fineness of the texture, the length and evenness of the staple, the weight of the fleece, its clearness of gum, we can say that we prefer the wool purchased of you to any other we use; and in consequence have for years recommended our customers to supply themselves with your sheep." A gentleman who used the sheep for years said of them: "I am not able to supply the demand for ram lambs, 5/ per head; I reared from one of the ewes two lambs, which weighed, at five months old, 105 and 111 lbs. gross, and clipped 5½ and 6 lbs. of wool, they brought me 10/. The mother, when I sold the lambs, weighed 175 lbs. Another lamb at six months old weighed 122 lbs., clipped 6 lbs., and brought 5/." These and other facts of the same kind, go to prove that Mr. Scott, by judicious selection and cross breeding, has produced a really valuable variety. And there is no slight advantage in seeing how the success has been achieved.—*Journal of the New South Wales Agricultural Society.*

A CHAPTER ON SACKS.

BY AN OLD FLOURFACTOR.

It is a remarkable fact that the word "sack," so far at least as the sound is concerned, is the same, or nearly so, in the language of every civilized country in the world, and, in fact, wherever the article itself is used. We are not learned enough ourselves to account for this, but we are assured by philologists that it originated so long back as the time of the building of the Tower of Babel, where there was so much confusion and outcry every night amongst the workmen for sacks to put their tools in that the word was never forgotten, but has been handed down from generation to generation. Be this account true or false, certain it is that sacks have been the cause of great uproar and contention wherever they have been commercially employed.

Our attention has been drawn to this subject by the circumstance that the corn and flourfactors and the railway authorities in France are at the present time in the throes of an agitation respecting sacks, similar to what occurred in London some five-and-forty years ago, of which we shall speak at large presently. It appears that since the adoption of free trade in France, in imitation of England, the grain and flour trade in the former country has assumed so much importance that the number of sacks required for the transmission of those articles, whether by rail or water, is enormously increased. These are supplied, on hire, by the railway directors, who obtain them from the makers. A guarantee is required by the borrowers for the safe return in good condition of the whole number obtained; but, notwithstanding this, a great many are still lost in one way or the other, and the difficulty is to know on whom to fix the loss. This is specially the case in the foreign trade to so great an extent that the parties interested are puzzled to know how to remedy the evil. In this emergency the principal sack manufacturing firm in Paris—Messrs. Pernet and Chêne—who are the largest lenders of sacks and whose establishment is near the Paris corn market, has proposed the formation of a company, or an association for carrying on the general manufacture of sacks and all other fabrics made from hemp, flax, jute, &c., such as sacks, tents, tarpaulins, &c., and for the letting of sacks on hire to millers, corn and flour factors, and others requiring them. The importance of this institution in France may be seen when we state that the weight of the materials employed in the manufacture of sacks alone amounted to one hundred millions of kilogrammes, or 98,214 tons, chiefly flax,

hemp, and jute. The sacks from these are nearly all employed for the conveyance of grain, flour, and all kinds of agricultural produce, besides large quantities of guano, phosphates, and other artificial and chemical manures, which are constantly being sent by railway and water. Large numbers of these are annually lost or seriously damaged in the transit from place to place, and the directors have great difficulty in recovering the value; for, although the borrowers engage to return them safe and sound, the loss cannot in some cases be assigned to the right party. By the establishment of the association, therefore, they will be better able to protect the sacks let out on hire from depreciation than by a private individual or company.

We have referred above to the loss of sacks in the London trade, both corn and flour, and its history is so remarkable as to form quite a romance in commerce. We must, however, go back fifty years to obtain a correct notion of the matter. At that period, before steam flour-mills were invented, a large portion of the flour consumed in the metropolis was made in the country, especially in Norfolk, Suffolk, Lincolnshire, and other counties nearest to the place of consumption. These millers had, we may say, no control over their sacks with flour sold in London. As soon as they were emptied they became a kind of public property, and were appropriated by any one who chose, or were able to lay hold of them. This misappropriation of an almost unprotected description of property was carried to a length that would astonish a miller of the present day, the very system employed to secure their due and timely return to the miller being the greatest means and cause of their loss. In explanation, we may state, that public collectors took upon themselves the ostensible task of collecting sacks of all kind, but especially those belonging to millers. They professed to give receipts for them to the bakers and others to whom the flour was sold, with the names of the persons to whom they belonged. Some of these collectors undoubtedly were honest men, but others were far from sustaining that character. Sacks by the ton were cut up and sold to the paper-makers in the neighbourhood of the metropolis, and to the makers of bung-cloths for brewers and others requiring them. Great numbers were sold to uscrupulous millers, or let to them on hire; and, as to the general body of millers, it was almost an understood thing that everybody got hold of every other body's sacks for working in the mill. In going into one of

these establishments in the neighbourhood of London you would probably see a large miscellany of these articles all marked with the owners' names, but which were never sent out, and therefore had no chance of being restored to the mill they came from. We recollect one country miller who was so notorious for this species of misappropriation, to which he added a very pompous address, that he obtained the title of *Count Sacks*: we suppose after the name of Marshal Saxe, the famous warrior. We also remember a case in which a country miller meeting a neighbouring grist, addressed him thus: "I hear, friend P., that thou hast got some of my sacks in thy mill?" "Very likely;" was the rejoinder, "but in this case I go upon the principle of an eye for an eye, and a tooth for a tooth: perhaps you have got some of mine?" "No, I have none of thine, friend P." However, friend P. took an early opportunity of calling at the friend's mill and found plenty of his own sacks, on which, of course, he laid an instant embargo.

Another common mode of misappropriation was the following: A flour factor having a demand for flour of a particular mark, and having no immediate opportunity of obtaining them at the price he could afford, had only to apply to a collector, and, at a day's notice, he could have as many as he wanted, paying a certain price for them. This, in one respect, might not be the worst kind of fraud, so far as the sacks were concerned, because they got into circulation, and there was a chance of their reaching the rightful owner; but, on the other hand, the flour put into them was most probably of an inferior description, and the consequence was, the character of the miller suffered by the transaction; but, as we have stated, the paper millers and bung-cloth makers were the greatest dealers in this contraband trade. The writer knew one case in which 35 cwt. of sacks, chiefly new ones, were thus cut up and sold to a bung-cloth maker in one lump. Mind, we are speaking of what occurred nearly fifty years ago, and, of course, cannot apply to the present practice of the class of traders in question. We may say with the poet, "Our's are a sweeter set of saints, I trow;" and, as a help, most of the country millers who still send flour to London charge them regularly with the flour. But, on the other hand, London is now chiefly supplied by its own steam mills, which have shut out a large number of those country millers who formerly supplied it. Be this as it may, the losses of the millers at the period referred to became so constant, so enormous, and so daring, that the country millers were at their wits' ends to know what course to take, when an accidental circumstance pointed out a plan which, if it could have found general support from the great body of millers, would have fully remedied the evil. The following is the circumstance referred to:

A country miller, who was selling four or five hundred sacks of flour weekly in London, engaged an agent for its sale, and, after the affair was arranged, he said: "Well, and now about sacks; what is your plan for securing their safe and speedy return?" "I suppose," was the reply, "that you will employ the regular sack collectors." "Ah, that's the point. I believe that our losses are chiefly sustained in that mode of collecting them. We have ourselves been compelled to purchase new sacks to the number of 16,500 in the course of three years and a-half, and have not, after all, a full working stock at command. This evident robbery must be put an end to, otherwise not only will the entire profits of the trade be absorbed, but the capital itself will follow them. You must therefore think the matter over, and any plan you propose to adopt, if feasible, shall have our strenuous support." Thus addressed, the agent, after consideration, proposed the following plan: To employ his own private collector, who should strictly avoid taking the sacks of any other miller, on pain of dismissal; that he should have a regular account of all flour delivered, and give receipts to the bakers for those sacks returned; that the agent should keep a regular debtor and creditor account of sacks against the bakers, the collector giving him immediate notice if any have been taken away by other collectors; that written notices, signed by the miller himself, should be given to each and all the public collectors, to avoid taking the sacks in question, on pain of a prosecution, which, if, after two or three instances, they should disregard, would then be commenced against them. Written notices were also given to bakers purchasing the flour, by the private collector, signed by the principal, not to allow the public collectors to take his sacks. Such was the plan adopted, and we shall now show how it operated.

In carrying out this plan, although he was fully supported by his employer, the agent found that he had thrust his head into a nest of hornets. He soon convinced himself that the collectors were the men with whom he would have to cope as the principal delinquents, and against these men, with the exception of two, he was compelled in turn to commence prosecutions. One of them was taken before a magistrate three times before he would desist; another was twice arraigned; a third, who was also a wharfinger, having, after three warnings which he laughed to scorn, taken a number of the prohibited sacks, was served with a notice of action in the Court of King's Bench, being at the head of the trade, and therefore worthy of a more respectable process than an appearance in a police court. This he also derided, and challenged the agent to proceed with his action, which he would certainly defend. His idea was that as the business of sack collecting was an established fact, those who followed it had a sort of "vested right" in it, that no private arrangement could set aside, or prevent his collecting any sacks that came in his way; the agent therefore made a special point of endeavouring to bring this "vested right" gentleman to his senses by having to defend himself in the highest court of law in which it could be tried. This case was looked at with great interest by the other collectors; for if he could have established his point it would at once have enabled them also to set the prosecutor at defiance; but they "reckoned without the host."

On going to his lawyer and stating the case to him for the purpose of his entering a defence to the action, the man of law asked him in a quiet manner, "Have you then taken the sacks in question after receiving a written notice and warnings?" "Yes," he replied; "and they are now in my warehouse, packed, ready to be delivered to the owner." "Well then," was the rejoinder, "take my advice, which at any rate you must believe to be disinterested, carry the sacks back to the baker from whom you obtained them, as you say that both the private collector and the wharfinger will not take them from you, having orders from the prosecutor to that effect; then go to the lawyer for the prosecution and pay all the expenses already incurred, and give a written promise that you will not in future interfere with his client's sacks. I know the party well, they are wealthy people, and having *right* on their side they will spare no expense or trouble in supporting it. I will see his lawyer, and will undertake to stop the prosecution if you follow the course I have proposed. But if you persist in defending the action it will cost you hundreds of pounds before you have done with it. And besides, it would be monstrous if a miller, or any other party, had not a good right to conduct his business and secure his own property by whatever plans he thinks proper. I therefore warn you that if you persist in your intention the consequences will be very serious indeed."

This advice, so perfectly disinterested, had its desired effect. The sacks were returned to the baker from whom they were obtained, and who, in fact, was as much to blame as the collector. The expenses, too, were paid, which was the unkindest cut of all; a written assurance given that the sacks in question would not in future be interfered with; and the "vested right"—proved to be a vested wrong—was blown to atoms.

The success of the agent in collecting the sacks of his employer with so much regularity, and in the prosecutions which he instituted, without, however, carrying them to the extent he would have done had not the delinquents succumbed, drew the attention of the millers generally to the possibility of establishing an Association for the protection of sacks belonging to millers supplying London with flour from the country or otherwise. Nothing, in fact, could prove more successful than the plan adopted by the agent after a few cases had been taken before the magistrate; and the case with the delinquents was found to be hopeless. Some of the bakers declared that the collectors would "swear over the prohibited sacks, but would not touch one of them;" and after five years' trial of it, at the end of which the agent gave up his commission, his employer made him a present of two hundred pounds, and stated that during that period, instead of having to purchase five thousand sacks a year, he had not purchased a single sack, and had always a sufficient stock for every purpose, all of them having his own mark upon them, for it was a rule strictly adhered to that no stray

sacks should be admitted into the mill. The millers therefore—but chiefly those in the country, who were the greatest sufferers—were anxious to form an "Association for the Protection of Sacks," and the agent was requested to draw up a plan, which he did, and it was in full operation for about two years, at the expiration of which it was given up, for reasons which will be stated presently.

It was in contemplation to extend and modify the plan by having a "Sack Depôt," to which all sacks belonging to the members of the Association were to be conveyed, and there sorted and packed ready for delivery to the wharves and other places, for restoration to the owners. It is worthy of remark that very few of the town millers joined the Association, for reasons best known to themselves, but which may be guessed at from what is known. It was notorious, indeed, that, like "Count Sacks" and "The Friend," it was a common practice for millers in the country as well as in town to have their stocks of "working sacks," or such as were used in the mill only, made up wholly, or to as great an extent as possible, of "stray sacks," which were never suffered to go out with flour or otherwise. Now the facility for the London millers to replenish their stocks of "working sacks" would be wholly destroyed by the proposed association, and therefore most of them declined joining it. A few prosecutions were instituted by it, the most important one of which was against a marine-store dealer in the Old Kent-road, on whose premises were discovered by the police officers an immense number of millers' sacks, cut up and packed ready to be sent to a paper-mill. This man was tried at the Old Bailey sessions, and found guilty of receiving goods knowing them to have been stolen. The original delinquent was not prosecuted, there being no direct evidence against him; but the police were on the alert, and would probably have found sufficient proof of his guilt. He was, however, warned by one of his friends that evidence would probably be soon forthcoming, which so alarmed him that, being at the time in bad health, he took to his bed, and died in the course of a week. The marine-store dealer was sentenced to a term of imprisonment. In another case a collector was detected in selling sacks to a greengrocer, and was taken before the magistrate, to whom he confessed his offence, pleaded poverty, and engaged, if the prosecutor would forego any further proceedings, he would relinquish sack-collecting, and go to sea, which had been his former course of life for some years. His offer was accepted, and he thankfully left the court.

There is no doubt that if the Association had been supported as it ought to have been, it would in time have effected a complete revolution in the mealing trade, so far as the sacks were concerned. But it had scarcely been well established before a circumstance occurred to break it up, and things reverted to their former channel. It was as follows: The agent referred to in the first part of this history, received an intimation from his wharfinger that a barge load of flour in sacks having his employers' mark upon them, had passed his wharf and gone up the river. The agent immediately wrote to his principal to know whether he had sold any flour, and received a reply that he had not, and that if the sacks bore his mark, they were stolen or surreptitiously obtained, and made use of by some one who had no right to them; and he charged his agent to use every means to discover where they were landed, and to whom the flour belonged. It was several days before he could obtain the information, when his own wharfinger, happening to call at a neighbouring wharf, discovered on one of the floors the identical sacks, in number one hundred, and filled with flour made from wheat at a mill at Deptford. On inquiring further, he learned that the flour belonged to a baker in the Minories, who had purchased the wheat in Mark Lane and sent it to the mill. The agent immediately wrote again to his employer stating the circumstances, and received an order to commence proceedings against the baker. In the meantime the agent had called upon the latter and demanded to know how he had obtained the sacks, &c. The baker refused to give him any information about it, and told him flatly that he might take what steps he pleased, as he was prepared to defend himself. He was accordingly served with a notice of action in the Court of King's Bench; and now another person came forward most unexpectedly, to put a stop, if possible, to the prosecution, though the case was so clear against him that

there was no doubt of a conviction, if it had been allowed to proceed. The following were the facts:

Amongst the Norfolk millers—eighteen of the largest of whom had joined the Association—was one whose shipments of flour amounted to from three to five thousand sacks per week, partly made at his own mills, but the greater part either purchased of other millers or ground for him at mills near London or elsewhere. To this man the baker in the Minories was a considerable customer, and the latter appealed to him to prevail on the prosecutor to stay the proceedings against him on his sending the sacks to the proper wharf. Although the affair was in the hands of the solicitor to the Association, the prosecutor was prevailed on to yield; but so disgusted was he with the whole transaction that he instantly withdrew from the Association, and his example was followed by all the Norfolk millers, who saw plainly enough that there was no disposition to remedy the evils of the trade, of which the case in hand was as clear as daylight against the delinquent. It was believed, in fact, that the flour had been made from wheat belonging to the miller who thus interfered, and that he had done so with the view of screening his own share in the affair, there being no apparent motive why he should do so, as a leading member of the Association, and always acting as chairman, and foremost in urging on prosecutions in every other case.

The withdrawal of the Norfolk millers from the Association gave the death-blow to the institution, and the collection of the millers' sacks in the metropolis fell again into the hands of the old collectors; with what results the millers themselves could have told if they were still living; but we believe that most of the millers and the sack collectors are dead, and very few indeed of those in the flour trade at that time are living. It is a remarkable and significant fact that, of the eighteen Norfolk millers who joined the Association in 1834, thirteen had failed within seven years after. What share the loss of sacks might have claimed in this remarkable result, it is impossible to say; but it cannot be doubted that it must have lessened the profits materially, and thus contributed to the failures. Certain it is that by the introduction and extension of steam-power applied to grinding corn, which took place about the same time, the Norfolk millers were shut out from the London trade, and we believe most of those millers who formerly ground for that trade, now send their flour northward, to Hull, Newcastle, &c. The repeal also of the duties on foreign corn has materially tended to make a change in the supply of flour to the London market. The millers in London and its vicinity can now supply themselves, and *do so*, with foreign wheat of excellent quality quite as cheaply, and, in general, more so than those at a distance from the metropolis can purchase at the local markets that of native growth. Not only so, but they can take the month's credit on it in Mark-lane, convert it into flour in a day or two, and into money in a week if necessary. It therefore requires but little capital to conduct a mill working by steam in London or its immediate neighbourhood compared with what a similar concern in the country absorbs. The payments for wheat in the latter case are most frequently expected the following market-day; added to which is the delay in getting the flour to London; though this is materially done away with where the mill is within reach of a railway. But, as we have stated, the Norfolk millers have found a better market in the north of England, and we believe the bulk of the flour, beyond the local consumption, is sent thither.

With respect to the sack collecting, most of those who still send flour from the country put it into unmarked sacks, which are charged to the factors or bakers to whom the flour is sent or sold. The town millers have mostly their own collectors, although some employ one or two of the public ones to pick up such stray sacks as they may come across. But with all their care, their loss is still about five per cent.; as to that of the millers who brand their sacks instead of sending them out plain and charged for with the flour, we have no means of learning the amount; but it is to be hoped that former proceedings have not entirely lost their influence, and that a better supervision is exercised over the collection now, in consequence of the exposure of the means by which sacks were lost under the former system.

THE PRICE OF WHEAT SEVENTY YEARS SINCE.

[From *The Sun*, October, 1800.]

There never was a subject on which calm discussion was more required than on that of the present high prices of provisions, and particularly of wheat. We never knew one in which people more violently persisted in erroneous opinion. One man asserts that scarcity alone is the cause of the high price, without any aggravation from collateral causes; while another more erroneously, and perhaps wickedly, denies that there is any real scarcity, and imputes the price to speculation and monopoly. There is no source of error more common than that of representing us the sole cause that which, together with many other circumstances, produces the effect.

From the year 1750 to the year 1770, the average balance received annually for wheat exported, amounted to about £600,000. From the year 1770 to 1790, the average balance paid for the same article imported, amounted to about £300,000. From 1790 to the present time, the balance has been constantly increasing against us, and is now at least double what it was on an average from 1770 to 1790. This clearly shows that the consumption of Wheat, whether arising from a more numerous population, or from any other cause, has increased in a much greater degree than the means of producing it. In addition to this fact, it is well ascertained that there is this year a deficiency in the crop of wheat. In thrashing it does not yield so well as it promised. These are the principal causes of the high price: a general consumption more than equal to our ordinary produce; and the produce of the year less than a common crop. The practices of dealers may, and we believe in some instances have tended to aggravate the evil, but their influence in producing high price is exaggerated. To assert, as some of our journalists have done, that "there is no scarcity," is the effect of ignorance, or of malicious intention.

A great cry has been raised against monopolists, forestallers, &c., and high authority has given too much sanction to this clamour. Look at the number of convictions for forestalling, and the delusion is manifest; for no person will say that the judges did not set out upon their circuits with quite sufficient abhorrence of this crime, and quite sufficient inclination to punish it, wherever it was detected. Mr. Waddington, one of the *friends of the people*, has done full, even more mischief than he can be aware of—not merely because he speculated in hops, but because so gross an instance of monopoly, and of raising an artificial price, was detected and exposed in him, that from that time whenever any article of provision has been raised to a very high price, the people have always considered it as artificial, and occasioned by the same practices.

But many of those who give up the idle clamours against monopolists, impute much of the high price of wheat and flour to the speculations of the farmer and the miller. We have before stated that, in a season of scarcity, many persons in possession of corn, ought to keep it in store. There is no article in which it is so essential to the community that the price should be fixed in exact proportion to the supply. An arbitrary price fixed too high in proportion to the stock on hand, deprives a great proportion of the people of this important article of food; an arbitrary price fixed too low creates an undue consumption, and produces a famine. Farmers were never supposed to have hoarded more upon speculation than in the last year, and yet the old stock of corn was never so nearly exhausted on the appearance of the new crop as in the present year.

Those who look to the miller as the source of the evil, tell us, as a proof, that the price of flour, on a particular day, was higher than it ought to have been, compared with the price of wheat; they talk as if they thought the wheat that was bought one day was ground the next: they forget that the trade of a miller is necessarily a trade of speculation; that he grinds to-day the wheat he bought perhaps six months ago;

and therefore, though the price of flour may in some degree be regulated by the price of wheat, it cannot be governed by it. It may be said that the trade of a miller ought not to be a trade of speculation; that he should be prohibited from becoming a purchaser, and should be paid at a certain rate for grinding. The answer is, that it is impossible to fix the rate; that what would be an enormous profit to one man, would drive another, with different machinery and under different circumstances, out of the trade.

The miller probably gains enormously upon some of his purchases, little upon others, and upon some he loses. The question, in a mercantile point of view is, are his profits exorbitant upon the whole? True it is, that he makes the most profit when corn is dearest: in times of abundance there is a competition of sellers; all they look for is a living profit; in times of scarcity there is a competition of hoarders, all looking for a high price. This is the nature of all trade. In the article of corn, if in the times of scarcity it produces the evil of a high price, it produces also the good of a sparing consumption.

We are as hostile as any persons to the real monopolist—to the person who is mischievous and wicked enough to endeavour to create an exorbitant and artificial price in the articles of human sustenance, bearing no relation to the supply. But the more we abhor and detest such a character, the more anxious we are to prove what we know to be the fact, that such characters are not common, and the more desirous we are that just men, acting in the fair line of their business, should not be confounded with them. To confound them will have the effect of driving the best men out of the trade.

To whatever cause we ascribe the high price of wheat and of bread, the poor call loudly upon us for our assistance. Some measure that has the effect of a temporary increase of the wages of labour must also be adopted. The high price puts the food of the people out of the reach of many of the labouring classes of society. Such a situation of things cannot arise without the mischievous malignity of the ill-disposed endeavouring to raise mobs, and excite them to riot, by imputing it to causes from which they know it does not spring.

We shall be happy if Parliament can devise any adequate remedy for the evil. Bounties on importation may be given; non-consumption agreements entered into, and many alleviations may be found; but without a diminished use of wheaten bread in all the classes of the community, and a considerable extension of our corn land, the evil, though perhaps mitigated for the present, will recur again. But the difficulties of the present year should claim the first consideration of Parliament. Whenever it deliberates upon this interesting and important question, we trust we shall see the attention of all persons anxiously directed to one and the same object; to relieve the wants, and not to inflame the minds of the people.

SUGAR FROM BEET-ROOT.—Now let us see (keeping as clear as possible from technical terms) what happens to the beet-root, when it is brought to the factory. The usual plan of operation is to wash the roots well, so as to free them from clay and dirt, and then to place them within the clutches of circular saws, making over 1,000 revolutions a minute, by which they are torn to pieces and reduced to pulp. This latter is then packed in linen bags, and subjected to the action of an hydraulic press, by which the juice is all squeezed out, and the pulp becomes a cake. This not only forms the beet-bread—so valuable for feeding purposes—but, if not required for that end, can also be used for making brandy and vinegar; or, what is still more remarkable—paper, it being found by paper manufacturers to be superior to rag pulp. So that, whatever may be the defects in the beet process, incapability of utilisation is not one of them.—*Food Journal*.

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

MEETING AT OXFORD.

MACHINERY IN MOTION.

We continue our notices of some of the various implement stands in the endeavour to do justice to the many deserving exhibitors who by their mechanical skill and enterprise added so largely to the general interest of that portion of the showyard. To attempt to enumerate or point out the special advantages of the thousands of implements shown would be utterly impossible. We can only make such brief commentaries as our notes, after inspection, have suggested. We commence with the machinery in motion, which always drew the largest share of curious visitors.

Most of the machines at work deserve a passing notice, although some of them were working miscellaneous objects, somewhat foreign to agriculture.

Nalder and Nalder, of Wantage, had two finishing thrashing machines to prepare grain ready for market, fitted with their patent screen to regulate the quantity of tail corn. Also, one of their malt screens, capable of screening 30 quarters an hour, as in use at Barclay & Perkin's and other large breweries.

Marsden, of Leeds, had two stone-breakers at work; one, Blake's American stone-breaker, 10 ft. by 7 ft., has a revolving screen for breaking and separating McAdam's road metal: it was employed breaking about 100 tons of limestone per day, at 1½d. per ton, and the machine will break the hardest stone at a cost of 3d. per ton. Another machine, made by Marsden, suitable for road metal or fine crushing, has jaws 12 inches by 3 inches, and is used for breaking quarry chips, chips for road metal, or for fine-crushing emery, cement, or coprolites.

Walworth and Co., of Bradford, had several of their smut machines and wheat cleaners working, also a flour-dressing machine with revolving cylinder and external brushes. One improved smut machine, fitted with separator and powerful exhaust fans on the most scientific principle, was guaranteed to clean 110 bushels of wheat per hour.

Hancock and Foden, of Sandbach, had a 4-horse and a 6-horse power steam engine at work driving a corn-driving mill, and a fixed thrashing machine adapted for large occupations.

Whitmore and Binyon, of Wickham Market, had some of their improved steam engines driving grinding mills with meal elevators.

Marshall and Co., of Gainsborough, made a very creditable display of steam engines, among which were five portable engines of various power. Their fixed 10-horse engine took the third prize in the competitive trials, and their 4-horse engine, which was highly commended, ran six minutes longer time than any other vertical engine. The grinding mill at work also took a third prize in competition. Some thrashing and dressing machines and circular saw benches completed the principal objects shown.

Foster and Co., of Lincoln, had two good finishing thrashing machines, set in motion by an 8-horse and 10-horse portable steam engines of their make.

Davey, Paxman, and Davey, of Colchester, had at work a 4-horse vertical fixed engine with a boiler on a new principle, with special facilities for quickly removing fire-box and for heating water, driving corn-drying ma-

chines by steam-heated cylinders, the blast passing through the chamber while the corn is kept in complete agitation.

Robey and Co., of Lincoln, had a vertical steam engine with patent field boiler commended by the judges. It is constructed with steam jacketed cylinder, and fitted with patent variable governor expansion gear. There were engines of different power driving grinding mills and thrashing machines. The portable combined double-blast thrashing and finishing machine of this firm, fitted with Riley's patent wrought angle-iron frame, improved straw shakers, barley awner, patent revolving screen, and self-feeding apparatus, was honoured with a silver medal.

Ruston and Procter, of Lincoln, had six of their steam-engines employed for different purposes. Their other objects shown were sawing benches, corn mills, thrashing machines and straw elevators.

Holmes and Sons, of Norwich, besides an 8-horse engine, horse gear, and oilcake breakers submitted to trial, had a straw elevator, the combination of the horse gear with which renders it easy of removal for stacking at any part of the stack, thus saving labour. This firm also had a good collection of seed, corn, and manure drills and manure distributors. A 13-row lever-drill, by adjusting the width of the levers, can be varied to any distance, so that a great quantity of seed or grain can be deposited per acre.

Riches and Watts, of Norwich, had a large number of grist mills, which attracted attention—especially Felton's American mill now made by them, also some hay collectors, and a vertical 4-horse steam engine of their own make.

Among the few American implements shown, Childs and Co., of Mark-lane, exhibited one which can be used either as a smutter to remove the smut, or as a decorticator to both remove the smut and thoroughly hull wheat, rice, and other grain; also an aspirator for dressing all kinds of grain and rice, by the combination of coarse and fine riddles and exhaust.

Clayton and Shuttleworth, of Lincoln, depended chiefly upon their engines, which carried off the highest prizes in each class. They worked some thrashing machines and straw elevators.

Whitehead, of the Albert Works, Preston, exhibited several of his drain-pipe, tile, and brick-making machines, which have met the approval of the judges at many of the Society's shows. These varied in price according to work and requirements. In one of these tried 129½ lbs. of clay was screened by hand-power in the short space of one minute, with a screen of three-sixteenths of space between the bars. There were also fifty-nine two-inch tiles made in the same length of time. It carried off a prize, as stated in our last number.

Pinfold, of Rugby, produced some stone and steel grist mills; and although his brick and tile machines were not entered for trial, one was tested by the judges and carried off the first prize for a power machine, which cuts the clay by the traveller, and is adapted to make a large number of bricks or drainpipes daily.

Page, of Bedford, was another exhibitor of clay-crushing rollers, brick presses, and pipe and tile making machines, a very strong double-end machine worked by an excentric, and suited for steam power, being commended by the judges.

The only other brick and tile machine to be noticed was Calcutt's, manufactured by C. Lampitt, of Banbury, which when worked by a 6-horse power engine will prepare the clay and make 20,000 to 25,000 bricks in ten hours.

Hodgkin, of Liverpool, had in action several of the useful machines made by Lawson and Sons, of Leeds, for dressing flax, suited for scutch mill owners or large or small farmers. They were driven by one of Ransome's portable engines. These machines took both the prizes for hand and steam power breakers and cleaners.

Barrows and Stewart, of Banbury, exhibited besides a variety of thrashing machines and elevators, and the necessary apparatus to steam cultivation. Smith's perfected four-wheeled windlass with steel wire rope was highly commended by the judges.

Humphries, of Pershore, had one of Clayton's engines driving two or three single and double blast thrashing machines.

Thomas, of Cardigan, exhibited new combined grinding and crushing mills for making fine or coarse meal for household and feeding purposes. These were worked by one of Marshall's 5-horse portable engines.

Brown and May, of Devizes, had eight engines in the yard, one fixed and the others portable.

Richmond and Chandler, of Salford, pride themselves specially on the excellence and serviceable quality of their chaffcutters, for which they again carried off the two first prizes, although run close on this occasion by the firm of Ficksley, Sims, and Co. The Salford house exhibited no less than nineteen of these machines, of different prices, and with certain specialities and new improvements. In one the old form of lever and weights are abolished, and spiral springs on each side the mouthpiece are substituted, thereby increasing the pressure on the feed as it becomes thicker, and the steel mouthpiece is also of an improved form, so as to render choking impossible. Another new implement shown was a litter-cutter, for cutting straw into long lengths for bedding. By the addition of change wheels it may be adapted for cutting chaff. Bean and oat mills, root-washers, and sets of horse gear were the other articles shown.

Coleman and Morton, of Chelmsford, entered horse gear for competition, and some oilcake breakers. They also had on their stand a miscellaneous collection of useful implements including cultivators, potato diggers, manure and water carts. A patent steerage horse hoc, made to take ten rows, with a new method of adjusting the draught, was entered as a new implement.

Hunt and Pickering, of Leicester, made a very fine and extensive display of useful implements. To say nothing of horse power gearing, grist mills, corn crushers, cake breakers, and turnip cutters, they entered several cheese presses, and some serviceable ploughs and horse hoes. Their mowers and reapers for two horses were described to have some improved features. The mower is adapted to cut equally well upon ridge and furrow as upon flat meadow land, and the cutting steel parts are an important improvement. Another form has the back-delivery reaping attachments, so as to make it a complete combined machine. A light and simple reaper, adapted for back, side, and swathe delivery, cuts breadth of five feet.

Ball and Son, of Rothwell, drew attention by their fine collection of waggons and carts. Some of their harrows were characterised by improvements, and their sack-holders appeared to be simple and useful contrivances.

Samuelson and Co., of Banbury, contented themselves with exhibiting reapers and mowers, the specialities of which are well known, and Gardner's turnip cutters.

Southwell and Co., of Rugeley, exhibited a great many

improvements and novelties in chaffcutters, cake breakers, turnip slicers and pulpers, cheese presses and stools, and mills, besides cultivators and rollers, the specialities of which we have no space to enumerate.

Nicholson, of Newark, brought forward eight vertical engines of moderate horse power, some of the smaller ones being specially adapted for driving chaff-cutters, churns, and suchlike. He also entered several cake crushers and breakers for trial. This maker was also strong in hay-making machines and horse-rakes, winnowers, and other useful farm implements.

Wallis and Stevens, of Basingstoke, had two portable steam-engines on the ground working thrashing machines and elevators or stackers. They also exhibited a number of their ploughs and patent harrows, with teeth ranging from 5½ inches to 12 inches in length.

Turners, of Ipswich, had two fixed and three portable engines in the yard, besides a good assortment of various crushing mills, cake breakers, flour mills, and other articles of their manufacture.

The stand of Mellard's Trent Foundry, of Rugeley, was principally noticeable for its dairy appliances, especially cheese presses and curd mills. Pugh's improved self-acting cheesemaking apparatus for cutting, gathering, pressing, and vatting of curds is simple in construction, economizes labour, and produces more and better curd than by handmaking. This firm entered also several very good corn mills, chaff-cutters, oilcake breakers, and root pulverizers in the trials. An improved double-action haymaker was also shown, which is a strong and serviceable machine, with backward and forward motion, and a simple method of raising and lowering the tine barrels.

Gray and Co., of Uddingston, brought forward no less than six improved ploughs, described in the catalogue as "new implements." They are double furrow ploughs, with the exception of one—a triple furrow, which, it is stated, can be worked on light soils with three horses.

McKenzie and Sons, of Cork, obtained high commendation for a very useful article—their patent mower and reaper knife-grinder and rest, which was brought out in America a short time ago, and is now largely in use in this country. It combines in one implement a knife-grinder, common grindstone, and a knife rest. The knife is held in position by a small pinching screw; a convex stone block, worked by a crank, acts on one side each of two sections in an oblique reciprocal motion. It grinds from point to end, requiring only a boy to manage the whole thing. Their turnip and mangold sower, which gained a silver medal at Manchester last year, is well known.

Tye, of Lincoln, besides corn mills, coprolite mills, elevators, and all mill utensils, had an eight-horse portable engine.

The old-established and well-known seed-houses made large and handsome displays of roots, seeds, and forage plants, the stands of Sutton and Sons, Thomas Gibbs and Co., and J. Carter and Co. being especially noticeable.

The following corrections have been received:—

The Fixed Steam-engine Trials.—The time run by Marshall, Sons, and Co., of Gainsborough, with the Ten-horse power Engine, was 2 hours 42 minutes. The figures in our report were transposed.

Crushers for Steam or Horse-Power.—Corbett and Sons, of Wellington, Salop, did not go to trial.

Bone Mills.—The Beverley Company roller was a single not a double one, and the total turned out by that machine 3 cwt. 3½lbs.—viz., dust 1 qr. 23lbs., ¼-inch 3 qrs. 5lbs., ½-inch 3 qrs. 25½lbs., rough 3 qrs. 6lbs.

THE BIRMINGHAM HORSE SHOW,
IN BINGLEY HALL.

Although the Hall was not packed quite so full as we have seen it, still there were plenty of animals gathered together to have made a good show, provided they had been of the right sort. Unhappily this was not the case, and we looked for good horses even as the parched up country has in many places gasped and thirsted for summer showers, which many a tiller of the soil knows to his cost have been by far too few. Nevertheless there were some plums in the pudding, and as the hall was nicely ventilated, and the custom of mixing up larking with business abolished, together with another wearisome failure, that of bringing the horses in class after class before the judges and the public, it was altogether an agreeable and interesting meeting. On first entering the yard we were told that it was rather strange that the three judges of hunters were Northamptonshire men—for the neat residence in stone and slate that you glide by on the right after leaving Rugby for Birmingham is well known as once the residence of Mr. Oldacre, the London saddler and purchaser of horses—and before leaving the yard that it was still more curious that the chief prizes should find their way to Wansford in England, which is also in the same county. We do not for a moment say that there was any unfair leaning to the grass country and to a fellow-sportsman, but we think that such a remarkable coincidence should be avoided for the future, as some of the exhibitors were not particular in picking phrases when giving vent to their feelings, laying the emphasis on an expressive word as strong as ever Keeley the actor did in one of his parts,

"This is the scene the painter drew,
Here's the rock and there the *blasted* yew."

But in the ladies' horses, when Mr. Elliott and Major Barlow were judging, was the sensation scene of the play! where after a lengthy deliberation they awarded the plating-looking unmannerly Squire from Wansford the blue riband, in preference not only to one or two others but to Mr. Jones's neat blood-like bay by Artillery, as nice a horse for the purpose, in manners, form, action, and temper, as one would wish to see—a verdict that deservedly brought forth hisses, and that was enough to choke Mr. Jones or any other man from exhibiting again. We believe, as many did, that the bay was the horse Major Barlow went for, and if so, we think that he ought to have stood out for his opinion as he would for his country, or at any rate he should have called in a third party—some known judge of horses for general purposes, and not one whose qualification is his having given so many thousands for such a horse, like the gentleman who on the strength of his having parted with £50 for a Cochin China cock was appointed a judge of poultry, and soon after locked up by his friends. Surely after such a decision there ought to be a court of appeal, or at least the ladies for the future allowed to judge for themselves as they could not fall into such a mistake, or give greater dissatisfaction. The four-days' show commenced on Tuesday, the 16th of August, Captain Clarke, Messrs. Oldacre, and Elliott, proceeding a little after nine with the thorough-bred stallions; the Captain taking a rather passive part throughout, while the other two seemed to go well together. There was nothing among the thorough-breds up to Dalesman of last year, comprising as they did

Legislator by Voltigeur, a short horse of no substance, and his toes in; Laughing Stock by Stockwell, an over-topped deformity, a Flatcatcher, and as untrue a made horse throughout as we ever wish to see, and this we say in the face of all the prizes he has taken from the time Mr. Cookson started him with the Royal £100 at Newcastle, and we have plenty to back us in our opinion. What the judges can see in him but beef we cannot comprehend, but we have set our pen against him from the first, as we did against Beechwood, Master of Arts, and a host of others, as we well recollect it was thought at the time to be a bit of presumption on our part to differ with practical men, as it was with Mr. Oldacre in '67, when he put False Alarm before Scottish Chief, and the wooden Master of Arts and Voyageur before Mountain Dew and other horses that could move. Of course a man who watches show after show, and who has given up his time to the love of the thing, as well as heard the opinions of some of the best men in the country over horses both on form and action, cannot know anything about it; while some lad just out of his teens, who has escaped drawing corks or serving out sugar, through picking up a little dog Latin during a six-month's stay or so at Camden Town, can bounce into a ring and disqualify a horse, though a couple of most potent-grave and reverend seniors beg to differ with him! Surely we are an easy-going people, when we know what mistakes doctors make, even when we can point out where the pain is ourselves. "But we are diverging," as the diner-out said when he mistook the canal for the towing-path. The next on the list was Professor Airy by Mathematician, a neatish topped horse of no substance, and not in appearance a hunter sire. Bertie by Newminster we had our say about as a hunter sire at Wakefield, as we had of the leggy Alcibiades by Cossack when he won at Islington, and that some say is like his sire, and that we say just about as much as Tom Sprung was like Tom Sayers, the most civil of boxers, being a fine big-boned man, while the other was gipsy-like and wiry. Then Idler by the Flying Dutchman is deficient of bone; and Sincerity by Red Hart we have given a portrait of in our Oxford and Wakefield reports, while Carlton by Stockwell, belonging to the same stable, was an abscutee, as were all Mr. Casson's other entries, in consequence of the death of his father. Hercules by Kempton could not belong to the crew, as his dam Polly by Hereford, a very handsome hackney mare that took a second for brood mares at Oxford, is not in the Stud Book. The last on the list was Jupiter by Weatherbit, who when a yearling was the hero of the ring at one of the Middle Park sales according to "Nunquam Dormio," who thus describes him: "The interest of the whole affair culminates as the brother to Neptunus the finest furnished yearling we ever set eyes upon, paces slowly round with an extraordinary long powerful stride. There was a strong competition, and Mr. Jackson became his owner for 620 guineas;" but here Jupiter was unnoticed, and the shuffling going Professor Airy beats him for a place. Laughing-stock is second, and Sincerity first—having now played first, second, and third at Birmingham, Wakefield, and Oxford, he and Laughing-stock holding the same places as they did at Wakefield, were Mr. Elliott, also, acted as a judge. Jupiter takes somewhat

after his sire and Neptune, but is not so round in the barrel or so powerful and muscular in his frame, nor has he the beautiful limbs of the old horse, but then he has not Weatherbit's weakness behind the shoulder to such an extent. He is a lathy wiry horse of fair form that we are not in love with, but we would just as soon or sooner send a mare to him with the chance of breeding a hunter, as we would to Laughing-stock, Professor Airy, Alcibiades, Idler, or Legislator, as there are six of one and half-a-dozen of the other. Laughing-stock is more likely, perhaps, to get weight carriers, if like gets like; as in that case they will have quite enough to do to carry themselves.

Let us now pass on to the hunters exceeding fifteen hands and a half, up to fifteen stone with hounds; and, taking them as a lot, there was not a first class passenger among them. We are not speaking of under-ground swells that will not bear the light, and that can cut a dash for fourpence, or of the short distance gentlemen who settle down into the second class when they get out of their own county, but of the genus genuine, who can go the pace and distance from end to end. The first horse, the Yankee, from Wansford, is a strong beast, but lacks quality, and is over at his shoulder-points, with his forelegs under him, and these he does not get away in his walk; although he seemed to use them better in his gallop from what we could see in a circus. Then, Tipperary was a very coarse-looking gentleman when he took a prize here as a four-year-old, but he has fined a bit, and is a good-shaped horse barring his head; and the society he was now in suited him. Widmerpool, the third prize, is a compact hunting-like horse on a short leg, with great power, but with his jowl set too far into his neck. The Don, from the same stable, is lengthy, of good form in top and limbs, but does not look of a hardy constitution, although he can move; while Major Barlow's Fox and Mr. Sankey's bay were not without breed and hunting characteristics. Next came the fifteen hands and a half hunters, without condition as to weight, which, like last year, was the class of the show. Among the lot were Mr. Lucy's beautiful mare Heroine, the first at Islington this year, as well as Golden Hue, that played second to her—a mare that Lords Portsmouth and Coventry, together with Mr. Chaplin, thought better than the gig horse who won the Badsworth hunt cup at Wakefield; but here Messrs. Oldacre and Elliott won't look at her, as she is drafted one of the first, without even putting her through her paces, though this class is without condition as to weight; and the Heroine is as neat a light hunter as ever stepped; while Golden Hue, who is cramped in his forehead and not near so free a mover, they keep in and award a third prize, as they can afford to do, having got rid of the Heroine. "But," says some 'cute gentleman, "what limbs Golden Hue has to the mare!" and we grasp them and find the difference mere hair splitting. Major Barlow's neat lengthy mare Brumette fares much the same as the Heroine; while one really nice horse and a goer, Mr. Dilke's Genial Boy, comes in for a commendation. Mr. Richards' Ashwell, a thoroughbred colt, that we spoke well of last year, with the exception of being a little throaty, when first in the four-year-olds; is now a gelding, and came in for a high commendation. The second prize, Highflyer, is of fair form and breed, and can move; while the winner, Mr. Percival's Granby by Gemma di Vergy, dam by Belzoni, bred by Mr. Watson, of Dorsley, Totness, where we have seen many a good one, is a deep level-topped horse of quality, as his pedigree would lead one to expect, hardy looking, with a nicely-proportioned length of leg, but rather light of bone for his top, and he did not move at all freely. Tres-ace, a big, narrow, lathy, chesnut horse of breed, that was second to Topstall

last year, was not noticed. The hunters not exceeding fifteen and a-half were a poor lot, and we doubted whether the judges would award a prize, as the best, Coxcomb, who took two prizes at Islington, is but a neat hack or ladies' horse. The gentleman up caused a little amusement when taking him over the gorse bar for the first time by making a patent safety of the pommel; however, he did it very cleverly the second time without such aid. On our asking a friend by our side whether that was the way he held on, he replied, very quietly, "Not in public." The four-year-olds were not grand, and we thought Mr. Holmes was more deserving of the prize in this class than where he was second to Granby; but not so much with his highly-commended bay by Planet, who seemed a little tucked up in his back ribs and peacocky in his quarters, as with Prudence, a wiry-looking wear-and-tear black. The first-prize, Walton, can move, and was of fair form, while Doctor de Jongh was not exactly of the hunter-stamp, though with plenty of quality, and Mr. Roots' commended, that Mr. Oldacre kicked into a scramble of some sort round the ring, and then got off, and looked at, was a thick-set, bad-shouldered cob, with nothing of the hunter about him. In a fair lot of three-year-olds the first and second two-year-olds of last year took the same places; the first, a chesnut colt by Saxon, looking anything but well done by, while the filly by the Lawyer could not be in better trim. The third had a good forehead; and Blankney, out of a favourite mare of Mr. Chaplin's, was rather high on the leg. The others we noticed were Mr. Frost's Comet and Mr. Richards' Tommy Dodd. In the two-year-olds Mr. Richards was again to the fore, playing first and third with a deep good-limbed thoroughbred colt by Morocco, out of a Fingal mare, and a nice-formed one of not so much substance, but a free mover, by Lacydes. The second was a long narrow colt of no depth by Hurrah, while the commended, a chesnut with four white legs, pleased us better than the highly-commended, whose shoulders were not quite right.

The second day commenced with the roadsters and hacks exceeding fifteen hands with Major Barlow and Mr. Elliott in the judgment seat. Mr. Holmes won easily with a well-made brown, cobby-hack, of great power, that could move; the second, The General, being a lathy thoroughbred looking horse, with gingerly dancing action. The next lot, the weight-carrying hacks, were very poor with the exception of half-a-dozen; the blue riband going to Alonzo, a bay of some character with a drooping quarter, and by no means perfect in form; but he moved strong and well, beating a very handsome red roan hack, Redpath, from Charleotte Park, where they go for beauty as well as form, as we never saw an ugly one from that quarter. Mr. Elliott rode the two, pulling Alonzo together and making the bay look twice the horse under him, that he did with his groom up; but as he did not get the mouth of Redpath he showed to less advantage with the judge than he did with his neatly got-up attendant. The third was a useful one of Mr. Holmes', and we think second at Beverley. The next best were Mr. Wilde's Brown Bess, from Bridgnorth, and Mr. Prest's, of Stretford's Rufus. Mr. Hornsby's old mare Beda won it last year, but now was shown in a ladies' class, with her stable companion Odd Trick; but we think both would have fared better as gentleman's hacks. In the cobs under fourteen hands, after a little rattling the dice turned up in favour of Chicken Hazard, a good topped, very stylish pony of thirteen two, with that peculiar straight, marching, hesitating action, although we thought the chances were six to four in favour of Mr. Marlett's fashionable gentleman-Starlight, a much better goer, though a trifle slack in his back. The second, Cleveland, a strong, well-made

one, from Thurgarton Priory, with power and action, would have looked none the worse if the gentleman in the red waistcoat had paid a little more attention to his nag's toilet. The Colonel was perhaps more of the cob cut than either, and took up the same position as he did last year. The next was the sensation class that we alluded to in the beginning, where the Squire of Wansford, as a lady's horse, was put over the heads of Mr. Jones' bay; Mr. Badham's Eclipse; Major Quentin's Burnt Sienna, a second prize taker at Islington; Mr. Garnett's Elegance, well known on the London boards; Mr. Hobson's Artist; and Mr. Richards' Shambally, who figured as the prize hunter not exceeding fifteen two last year. The commended Baron, a chesnut from Wansford, was more to our fancy than his stable companion, but as a charger, and not a lady's horse, Mr. Badham's old grey Major, who is as well-known in the ring as the gentleman in the white hat and crape that steered him, must have nearly filled the stocking with prize money by this time, as his victories are as numberless as the stars. He again played the conqueror in ladies' horses not exceeding fifteen hands, with Lady Jane as his second, an iron grey of a good figure; but a skittish young lady of a queer temper, that was continually kicking up her heels. The commended was a pretty weed from Cowbridge; while old Beda and her young man could not keep step together, lost their tempers, and were bowed out by the master of the ceremonies. Miss Davy, of Leamington, showed a rather taking grey mare by Cregane, an Irish stallion shown at Wakefield, and Mr. Hobday a neat black hack called Robin Hood. The harness horses exceeding fifteen hands high were not up to much, with the exception of the winner, Greenfield, who is a lengthy, short-legged, stylish-looking horse, for Mr. Browning's grey was rather common-looking, and Mr. Thorne showed a bay with a rather waspy middle, that was a capital mover, going oily and well. In the next lot in harness exceeding thirteen hands and a-half and not exceeding fifteen hands, there were not many of anything like the first water; the Princess being a clever mare, with nothing extraordinary about Mr. Blyth's second, but why Leybourne is continually passed over as a gig-horse we should like to know, as the way he carries himself, with his beautiful action makes up for a little lightness in his back ribs. Many of these horses in harness had not their numbers. With nothing worth mentioning to oppose him, Mr. Holmes won in harness pairs with a couple of dark browns, fine looking horses, but they did not pull well together, going in a sheepish sort of way, with their tails tucked in and their eyes and ears working backwards and forwards, evidently not more at home in the circus than some couples of ladies and gentlemen when making their first appearance in a public coffee-room in this country. For horses or ponies Mr. Thorne was awarded the prize for the best appointed tandem, neither the leader or wheeler being remarkable for anything good. To our mind, Mr. Tyler's turn out, with two rather varmint-looking bay ponies, well in hand, was by far the best, but the prize invariably goes to horses here upon this reasoning: "Would you not rather sit behind horses than little bits of twisting ponies?" There were a great many ponies, but as with the horses the ordinary ones prevailed, and the beautiful were few and far between. But is not this the same with all things, and it has often struck us, as we dare say it has many before, when gazing out of some hotel window at the people passing, that if war were declared between the ugly and the handsome, how the good-looking ones would soon be routed. Of course, we should be neutral, unless the ugly mugs insisted on our leading them on. We have no time to notice the little fry, but cannot pass

over such as Mr. Horsby's sweet little chesnut, Lady Mary, that any lad would fall in love with; Mr. Eatou's Beauty, Mr. Adderley's Vulcan, Mr. Bower's Jemmy, and Captain Brooke's Fatty. In the cob stallions the tug of war was between St. George, the Islington and Oxford prize cob, and Mr. Milward's Sleaford hero, Don Carlos, over which the Louse divided, and Mr. Graham, of Yardley, was called in to decide, who gave it in favour of Don Carlos, a verdict that we should quite agree with, provided the Don was as good behind as he is before.

The agricultural and dray horses do not muster in great numbers in Bingley Hall, but what there are of them are generally good. In the agricultural stallions the first-prize two-year-old at Oxford not qualified to compete as Clydesdale or Suffolk, Nonpareil, a very deep well-made horse, on a short leg, with not the best head or eye, beat the well-known Clydesdale, Young Lofty, about the handsomest cart horse we ever saw; while the gandy coloured York Champion, the second at Oxford, was third. There was a solitary and very moderate specimen of a Suffolk exhibited by Mr. Beale Brown. There were four four-year-olds, the third at Oxford in mares and foals, a grey, Nelly by name, being the first, and a useful active looking bay of Mr. Bullivant's second, while Mr. Brierly's chesnut Warwick, the second at Wakefield in a capital class, was nowhere! In dray horses it will be seen that Mr. Brierly beat the Midland Railway Company, who exhibited a couple of very fair specimens.

P R I Z E L I S T .

JUDGES.—F. Oldaker, London.
 Captain Clarke, Spratton.
 J. Elliott, Towcester.
 Major Barlow, Woodbridge.
 J. Burberry, Stratford-on-Avon.
 R. Swale, Wolverhampton.

Thorough bred stallions for getting hunters.—First prize, £30, J. Casson, Burgh-by-Sands, Carlisle (Sincerity); second, £10, J. Moffat, Kirklington, Carlisle (Laughing Stock); third, £5, W. Robinson, Bonhill, Tamworth (Professor Airy).

Hunters exceeding 15 hands 2 inches, equal to 15 stone, 5 years old and upwards.—First prize, £30, T. Percival, Wansford, Northampton (The Yankee); second, £10, Westley Richards (Tipperary); third, £5, Westley Richards (Widmerpool).

Hunters exceeding 15 hands 2 inches, without condition as to weight, 5 years old and upwards.—First prize, £30, T. Percival (Granby); second, £10, G. Holmes, Beverley (High-flyer); third, £5, H. Spencer Lucy, Warwick (Golden Hue). Highly commended: Westley Richards (Ashwell). Commended: C. F. Dilke, Coleshill (Gemal Bay).

Hunters not exceeding 15 hands 2 inches high.—First prize, £20, Major Quentin, Cheltenham (Coxcomb); second, £10, F. Blakeway, Stourbridge (Surprise).

Hunters four years old.—First prize, £20, A. Newman, Winchcomb, Gloucester (Walton); second, £10, W. H. Hoey, Leamington (Doctor de Jough); third, £5, C. Milward, Moseley (black gelding). Highly commended: G. Holmes (bay). Commended: W. Root, Leamington.

Three years old colts or fillies, for hunting purposes.—First prize, £20, Westley Richards (chesnut colt); second, £10, T. Argyle, Tamworth (Jenny). Commended: G. Mitchell, Burton-on-Trent (Blankney).

Two years old colts and fillies, for hunting purposes.—First prize, £15, Westley Richards (bay colt); second, £10, J. Mordaunt, Staple Hill, Warwick (chesnut colt); third, £5, Westley Richards (bay colt). Highly commended: T. Jones, Shrewsbury (brown). Commended: G. J. Mitchell, Burton-on-Trent (chesnut colt).

Hacks, roadsters, and cobs exceeding 15 hands high.—First prize, £15, G. Holmes (brown gelding); second, £10, F. G. Haines, Ealing (The General); third, £5, J. Gilman, Birmingham.

Weight carrying hacks, exceeding 14 hands and not exceeding 15 hands 2 inches.—First prize, £15, G. Wilkes, Birmingham (Alonzo); second, £10, H. Spencer Lucy, Warwick (Redpath); third, £5, G. Holmes (brown mare).

Cobs not exceeding 14 hands high.—First prize, £15, Capt. J. S. Ballard, Cowbridge (Chicken Hazard); second, £10, R. Milward, Thurgarton Priory, Notts (Cleveland); third, £5, H. E. Williams, Handsworth (The Colonel). Commended: C. Martlet, Newark (Starlight).

Ladies' horses, exceeding 15 hands high.—First prize, £15, T. Percival (The Squire); second, £5, F. B. Jones, Cheltenham (bay). Highly commended: T. Percival (The Baron).

Ladies' horses, not exceeding 15 hands high.—First prize, £15, G. D. Badham, Sudbury (Major); second, £5, W. H. Harrison, Oxendon, Northampton (Lady Jane). Commended: R. N. Hooper, Cowbridge (The Hart).

Harness horses exceeding 15 hands high.—First prize, £15, C. J. Shaw, Edgbaston (Greenfield); second, £5, J. A. Browning, Birmingham (Grey mare).

Harness horses exceeding 14 hands and not exceeding 15 hands high.—First prize, £15, H. J. Buck, Shrewsbury (Princess); second, £5, T. W. Blyth, Evesham (Bay gelding).

Pairs of harness horses.—Prize, £20, G. Holmes, Beverley. Tandems, horses or ponies.—Prize, £5, G. Thorne, Birmingham.

Ponies in harness, not exceeding 14 hands high.—First prize, £10, Capt. W. J. Brooke, Weedon (Patty); second, £5, G. Clewents, Birmingham (Sultan). Highly commended, E. Steventon, Swan Village (Brown).

Ponies not exceeding 13 hands high.—First prize, £10,

J. Horusby, Grantham (Lady Mary); second, £5, J. Thomas, Cardiff (Minnie).

In harness.—First prize, £10, W. King, Leighton Buzzard (Tommy); second, £5, J. Cooke, Banbury (Prince of Wales). Commended, J. Eaton, Southwell, Notts. (Beauty).

Ponies, not exceeding 12 hands high, to carry children.—First prize, £10, F. Bower, Birmingham (Jemmy); second, £5, R. M. Hamer, Stratford-on-Avon (Kingeraft). Commended, F. Bower (Leominster).

Pairs of ponies, in harness.—First prize, £10, Major Quentin, Cheltenham (Lothair and Corisande); second, £5, — Male, Leamington (Robin Hood and Little John).

Stallions, for getting cobs or ponies.—First prize, £15, R. Milward (Don Carlos); second, £5, H. Roundell, Otley (Sir George).

Dray horses, four years old and upwards.—First prize, £15, C. W. Brierly, Manchester (Champion); second, £5, Midland Railway Company (Captain).

Agricultural horses, four years old and upwards.—First prize, £15, A. H. Thursby, Leamington (Nelly); second, £5, J. Bullivant, Birmingham (Gilbert).

Stallions.—First prize, £30, W. Wynn, Grafton, Alcester (Nonpareil); second, £10, the Earl of Beauchamp, Worcester (Young Lofly); third, £5, J. Manning, Wellingboro' (Young Champion).

NORTH AND EAST RIDINGS OF YORKSHIRE AGRICULTURAL SOCIETY.

The Scarbro', Hackness, and North and East Ridings Agricultural Society has just held its annual show. Partly no doubt from the prevalence of foot and mouth disease, and partly from similar gatherings being fixed for the same day, the show of horned cattle in number and in quality was far below what it has been in previous years. The entries on Friday, taken altogether, numbered a little over 800; last year they exceeded 1,000.

The two years old heifers made up the only class among the Shorthorns in which there was a good competition, Mr. Hornby, of Ganton, taking the leading prize against four other breeders. Major Stapylton, of York, took the leading bull prize with the five years old Lord Wetherby, and was awarded also the first prize for bull calves. The two years old bull prize went to Mr. Robert Fisher, of Beverley, and the three years old to Mr. Frank, Fylingdales. The first prize for aged heifers was given to Lord Feversham's Columbia, and the first honour for heifers under two years went to Mr. Hornby. There was a fair show of sheep. The pigs made up a good show, and most of the classes were well filled. The display of horses was a pretty large one, and formed, as usual, the chief feature of the show.

JUDGES.—Cattle, sheep, and pigs: P. Spencer, Claybrook, Lutterworth; F. J. Empson, Bonby, Barton-on-Umber; W. Jobson, Batelaud, Hexham. Hunting and nag horses: R. Walker, Somerby, Brigg; J. E. Bennett, Bosworth Grange, Rugby; W. S. Atkinson, Barrowby Hall, Woodlesford, Leeds. Coaching and agricultural horses: J. W. Arnett, Ugham, Morpeth; A. Turnbull, Cresswell, Morpeth; W. Wood, Hahrough, Cleby.

The following list contains their principal awards:

CATTLE.

SHORTHORNS.

Bull of any age.—First prize, Major Stapylton, York; second, D. Hartley, Westerdale.

Bull above one and under two years old.—First prize, R. Fisher, Beverley; second, Earl Feversham, Hemsley.

Bull calf, under twelve months old.—First prize, Major Stapylton; second, Earl Feversham.

Cow or heifer above three years old, in calf or milk.—Prize, Earl Feversham.

Heifer not exceeding two years old.—First prize, T. Hornby, Ganton; second, Major Stapylton.

Bull above one and under three years old.—First and second prizes, T. Frank, Whitby.

Cow or heifer above three years old, in calf or milk.—Prize, T. Frank.

Heifer not exceeding three years old, in calf or milk.—Prize, T. Hodgson, Scarbro'.

Heifer not exceeding two years old.—First prize, T. Hornby; second, J. M. Crosby, Scarbro'.

CATTLE OF ANY BREED.

Dairy cow.—Prize, G. Chapman, Seamer.

COTTAGER AND MILK SELLERS' PRIZE.

Milk cow.—First prize, Thos. Cole, Scarbro'; second, G. Chapman.

SHEEP.

Two shear or aged ram.—First prize, E. Riley, Beverley; second, J. W. Sharpe, Hull.

Shearling ram.—First prize, E. Riley; second, W. Brown, Holme-on-Spalding-Moor.

Pen of three shearling rams.—First prize, E. Riley; second, J. J. Simpson, Hunmanby.

Pen of five shearling gimmers.—First prize, W. Brown; second, E. Riley.

Pen of five Leicester ewes.—First prize, R. Tindall, Pickering; second, S. Staveley, Driffield.

Pen of five Leicester gimmaer lambs.—First prize, W. S. Gray, Whitby; second, Mrs. E. D. Nestfield, Scarbro'.

Ram adapted to a moor or mountain district.—First prize, W. Rudsdale, Danby End, Yarm; second, C. Smith, Westerdale.

Pen of three ewes adapted to a moor or mountain district.—First prize, C. Smith; second, W. Rudsdale.

Fat ewe or wether.—First prize, R. Tindall; second, W. Brown.

PIGS.

Boar of large breed.—First prize, J. and H. Sugdon, Beverley; second, M. Gibson, Scarbro'.

Sow of large breed, in milk or pig.—First prize, J. Thompson, Seamer; second, G. G. Bilton, Scarbro'.

Boar of small breed.—First prize, G. Mangels, Ripon; second, G. Sedgwick, York.

Sow of small breed, in pig or milk.—First prize, G. Mangels; second, T. Boggett, Ilwethorpe.

Three store pigs, of any breed, of the same litter, and from four to nine months old.—First and second prizes, M. Harrison, Scarbro'.

Boar of large breed, not exceeding twelve months old.—First prize, W. Rudsdale, Yarm; second, G. Chapman, Seamer.

Sow of large breed, not exceeding twelve months old.—First prize, W. Rusdale; second, G. Chapman.
 Boar of small breed, not exceeding twelve months old.—First prize, G. Chapman; second, J. Windle, Pickering.
 Sow of small breed, not exceeding twelve months old.—First prize, W. Wardell, East Ayton; second, G. Chapman.
 Store pig, the property of a cottager or working man.—First prize, G. Chapman; second, G. Scoter, East Ayton.
 Extra stock.—Prize, D. Berryman, Ruston.

H O R S E S.

HUNTERS.

Stallion, thoroughbred.—First prize, W. Shaw, Shipton; second, G. Lamplough, Driffield.
 Brood mare, with foal at her feet.—First prize, J. Robinson, Thirsk; second, G. Ringrose, Ganton.
 Yearling gelding or filly.—First prize, Sir G. Cholmley, Bridlington; second, R. Catley, York.
 Two-year-old gelding.—First prize, Charles Elsley, York; second, J. Cattle, Malton.
 Two-year-old filly.—First prize, J. F. Leighton, Osgodby; second, J. Robinson.
 Three-year-old gelding.—First prize, E. D. Nesfield, Scarborough; second, Sir G. Cholmley.
 Three-year-old filly.—First prize, Sir G. Cholmley; second, R. Jackson, Middlesbro'.

COACHING HORSES.

Stallion.—First prize, G. Holmes, Beverley; second, H. R. W. Hart, York.
 Brood mare, with foal at her foot.—Prize, J. S. Darrell, West Ayton, Sherburn.
 Yearling gelding or filly.—First prize, E. Piercy, Garton, Driffield; second, J. Jackson, Scarborough.
 Two-year-old gelding or filly.—First prize, G. Hopper, Yedmandale, Ayton; second, J. Taylor, Burton Agnes.
 Three-year-old gelding or filly.—First and second prizes, T. Darrell.

ROADSTERS.

Stallion.—First prize, R. Waters, Gilling; second, W. Poad, Raston, Sherburn.
 Brood mare, with foal at her foot.—First prize, W. Major, Sledmere; second, J. F. Morris, Scarborough.
 Yearling gelding or filly.—First prize, C. Crosby, Brompton; second, G. Knowlson, Thormanby.
 Two-year-old gelding or filly.—First prize, T. B. Wilson, Folkton, Ganton; second, W. Snowdon, Slingsby.
 Three-year-old gelding or filly.—First prize, T. N. Kendall, Pickering; second, W. Snowdon.

Mare or gelding of any age.—First prize, W. and G. Lovel, Norton, Malton; second, W. Stevenson, Cottingham, Hull.

AGRICULTURAL HORSES.

Stallion.—First prize, J. Braithwaite, Eberston, Hesleron; second, Francis Simpkin, Welton, Brough.
 Brood mare, with foal at her foot.—First prize, Mrs. E. Smith, Bampton, Bridlington; second, W. A. Wood, Sutton Forest.
 Yearling gelding or filly.—First prize, R. Davison, Bampton; second, John Petch, Scarborough.
 Two-year-old gelding or filly.—First prize, J. Jackson, second, J. S. Darrell.
 Pair of horses, of either sex, worked during the summer.—Prize, R. Tindall, Kirby Misperton, Pickering.

PONIES.

Mares or Horses, under two years old, not to exceed 14 hands 2 inches high.—First prize, W. Simpkin; second, J. S. Darrell.
 Mares or Horses, under eight years old, not to exceed 13 hands high.—First prize, H. Walker, Scarborough; second, Col. J. D. Astley, Scarborough.
 Extra stock.—First prize, Jas. Barwich, Scarborough; second, W. Peacock, Scarborough.

SPECIAL PRIZES.

Hunting gelding or mare, of any age, open to the district only.—Prize, G. Ringrose, Ganton.
 Hunting mare or gelding, five years old.—Prize, J. S. Darrell, West Ayton, Sherburn.
 Hunting gelding or mare, four years old, the property of a tenant farmer residing within the district.—Prize, T. Darrell, West Ayton.
 Ladies' hackney gelding or mare of any age.—Prize, Sir G. Cholmley, Bridlington.
 Harness gelding or mare, not less than three but under eight years of age.—Prize, W. Stephenson, Cottingham.
 Roadster, of any age up to 14 stone.—Prize, J. Robson, Old Malton.

LEAPING PRIZES.

Horses, of any age, sex, or breed.—Prize, T. Youdan, Ganton.
 Ponies, of any age, sex, or breed.—Prize, T. J. Bodger, Sherburn.
 The luncheon took place at one o'clock, and was attended by a numerous company. Mr. E. S. Cayley, of Wyedale, one of the vice-presidents, took the chair in the absence of Lord Londesborough.

PENISTONE AGRICULTURAL SOCIETY.

The seventeenth annual exhibition of the Penistone Society has been held. The amount of prizes given was in money nearly £250, besides fourteen silver cups for the best stock on the ground. The entries for horses were not numerous, only numbering forty-three; but the quality, as a whole, was very fair. With the exception of seven jumpers, they were all for agricultural purposes. Both the mares and geldings were a good class, while the foals were excellent. Of cattle there were 39 entries, but for quality they were the best lot here ever shown. Bulls were excellent, and the shorthorn cows were exceedingly good. Sheep comprised 46 entries; taken, as a whole, they were a very good class. Pigs, too, were of a fair class throughout, though small in number.

JUDGES.—Cattle and Sheep: G. H. Sanday, Holme Pierrepont, near Nottingham; J. Rooth, Stretton, Alfreton, Derbyshire; W. Mellows, High Melton, near Doncaster. Pigs and Horses: F. W. Addey, Upper Cudworth, near Barnsley; Charles Speight, Millhouses, near Sheffield; J. Sheard, New House, Huddersfield.

CATTLE.

Shorthorned bull.—First prize and silver cup, T. Statter, jun., Standhill, Whitefield, Manchester; second, Mrs. Packman, Tupton Hall, Chesterfield.

Shorthorned yearling bull.—First prize, J. Sunderland, Bilingley, near Barnsley; second, T. Statter, jun.
 Shorthorned bull-calf.—First prize, G. Mann, Scawby Hall Doncaster; second, J. Mann, Sprotbrough, Doncaster.
 Shorthorned cow or heifer in calf or milk.—First prize, T. Hopkinson, Woodthorpe, Tupton; second, T. Statter, jun.
 Cow for dairy purposes.—First and second prize and silver cup, W. Marsh, New House, Penistone.
 Two-year-old shorthorned heifer.—First prize, Crawshaw and Blakeley, Dewsbury; second, J. S. Stanhope, Cannon Hall.
 Two-year-old shorthorned heifer.—First and second prize, J. Burgon, Hall Royd, Silkstone.
 One-year-old shorthorned heifer.—First prize and silver cup, T. Statter, jun.; second, Crawshaw and Blakeley.
 One-year-old shorthorned heifer.—Prize, J. Marsh, Cudley, Penistone.
 Shorthorned heifer calf under 12 months old.—First prize, Crawshaw and Blakeley; second, R. Lowe, Shire Green.
 Shorthorned heifer calf under 12 months.—Prize, W. Marsh.

SHEEP.

Ram of any age.—First prize and silver cup, T. H. Hutchinson, Manor House, Catterick; second, J. Dransfield, Oxspring House.
 Shearing ram.—First and second prizes, T. H. Hutchinson,

Shearling ram.—Second prize, Elizabeth Birks, Edge Hill, Penistone.

Top lamb bred in 1870.—First prize, T. H. Hutchinson; second, J. Dransfield.

Top lamb bred in 1870.—First prize, E. Birks; second, W. Parkin, Hunshelf.

Pen of three ewes having suckled lambs in 1870.—First prize, T. H. Hutchinson; second, J. Winder, Newton, Doncaster.

Pen of three ewes having suckled lambs in 1870.—First prize, J. Sharpley, Scholehill; second, J. Mills, Whitefield, Ox-spring.

Pen of three shearling gimmers.—First prize, silver cup, and second prize, T. H. Hutchinson.

Pen of three shearling gimmers.—First prize and silver cup, F. Fisher, Gawber Hall, Barnsley; second, J. Sharpley, Scholehill.

Pen of three ewe lambs bred in 1870.—First prize, J. Winder, Newton; second, T. H. Hutchinson.

Pen of three ewes bred in 1870.—First prize, W. Parkin; second, J. Sharpley.

PIGS.

Boar of large breed.—First prize and silver cup, P. Eden, Cross-lane, Salford; second, R. E. Duckering and Sons, Northorpe, Lincolnshire.

Boar of small breed.—First prize, P. Eden; second, R. E. Duckering and Sons, Northorpe.

Sow of large breed in-pig or with litter suckling.—First prize and silver cup, R. E. Duckering and Sons; second, P. Eden.

Sow of middle breed in-pig or with litter suckling.—First prize, R. E. Duckering and Sons; second, P. Eden.

Sow of small breed in-pig or with litter suckling.—First prize, R. E. Duckering and Sons; second, P. Eden.

Store pig of large breed.—Prize, R. E. Duckering and Sons.

Store pig of middle breed.—First and second prizes and silver cup, C. F. Hallas, Huddersfield.

Store pig of small breed.—First prize, R. E. Duckering and Sons; second, C. F. Hallas.

COTTAGE LABOURERS' CLASS.

Store pig of any breed.—First prize, G. Ramsden, Penistone; second, J. Holland, Thurlstone; third, C. Webb, Stainborough.

HORSES.

Gelding or mare for agricultural purposes.—First prize, J. Dransfield; second, J. Haigh, Pale Hill, Thurgoland.

Brood mare for agricultural purposes, with a foal.—First prize, T. Makin, South Milford; second, W. Branley, Amcotts, Doncaster.

Foal of 1867, gelding or filly, for agricultural purposes.—First prize, S. Barker, Marr, Doncaster; second, T. Statter, jun.

Foal of 1868, gelding or filly, for agricultural purposes.—First prize, T. Duckett, Bentley, Doncaster; second, T. Wilkinson, Ardsley.

Foal of 1869, colt or filly, for agricultural purposes.—Prize, S. Silverwood, Cawthorne.

Foal of 1870, colt or filly, for agricultural purposes.—First prize, T. Makin, Beckfield House; second, T. Statter.

THE ROYAL DUBLIN SOCIETY.

THE HORSE AND SHEEP SHOW.

The most successful event of the year in Ireland has been the annual horse and sheep show held by the Royal Dublin Society in its extensive premises Kildare-street. It has brought together the finest horses from every direction that Ireland can boast of. The few words uttered by Sir John Power and others at the Royal Agricultural Society's banquet in Kilkenny in 1833, when its show was held there, were taken up with spirit by the leading noblemen and gentry, and culminated in the first Irish horse show in April, 1864, when 370 horses appeared in competition. The progress the horse shows have made since will be best understood by reference to the following table:

Year.	Entries.
1864	370
1865	No show
1866	303
1867	358
1868	368
1869	452
1870	493

But it is not in numbers that the exhibition shows its merits, but in the increasing value of the young stock annually brought forward; as those must acknowledge that have kept a close watch on the progress made, contrasting the style, quality, and condition of the first with the succeeding shows, of which that under notice yields abundant proof, as it is universally acknowledged that never before were horses shown in such good working condition.

The first section included stallions "best calculated to improve and perpetuate the breed of sound stout thoroughbred horses, weight-carrying hunters, and horses for general stud purposes," in which eighteen were entered. His Excellency Earl Spencer was put first for General

Hess, occupying the same position as he did last year; Mr. F. H. Power, Mallow, comes second with Citadel, bred by Lord Derby, by Stockwell out of Sortie, by Melbourne; a high commend goes to St. George Mansergh, Tipperary, for Joco; and commends go to Mr. Power, the owner of the second prize horse, for Robin, bred by Baron Rothschild, R. L. Moore's Little Stag, and Thos. Lindsay's Pathfinder, the second at last year's show. There were many good horses besides those placed, amongst which were Mount Palatine, Monarch of the Glen, Tom King, Master George, and Artillery—the prize horse of 1866—a little out of form, but still one of the finest horses in Ireland. In the next section, for thoroughbred sires, calculated to get carriage, troop horses, or roadsters, Strood, the prize horse of 1869, was the only one entered, and he gets the prize; while, singular to say, that in the next section for thoroughbred sires, calculated to get roadsters, hacks, or harness-horses, Kinnaird, the property of Captain Morgan, Athy was again the only one entered, but passed over for want of competition. This was blowing hot-and-cold, for Kinnaird was placed second last year, and is still a good horse for the purpose. A very fine horse—Cleveland—the property of W. E. Fitzsimons, Mount Forest, Gorey, was entered by some mistake among the agricultural horses. He was bred by Mr. Riddell, Great Stanton, Yorkshire, by Wonderful Lad out of Georgina by Master George; and the judges were so much pleased with him as to recommend a special prize medal. Hunters, not less than five years old: The first section for weight-carriers equal to 14 stone and upwards numbered 65, which contained many superior animals. Mr. Richardson, Laimbeg House, Lisburn, was deservedly put first for a grand and very powerful brown gelding by Domino, out of a mare by East of the Barons. C. M. Coyne owns a bay mare by Zouave, dam by Leander, which came in second. She

has good action, but greatly below the first prize in power. S. Bruce, Bennetsbridge, Kilkenny, was placed third with Caprice by Dough, dam by Regulator, an active, well-backed chestnut mare; and a fourth goes to Captain Cosby, Stradbally Hall, for Carriek, bred by Earl Carriek, Mount Juliet. Mr. Belf's Lady Spencer, Captain Studdert's chestnut gelding, F. King's Queen of Trumps, Captain Tuthill's La Montagne, and a host of others unplaced, were taking horses, with capital action and many equal to the requirements named in the section. Five-year-old hunters, equal to 13st. 7lb. up to 14st., numbered no less than 70. Captain Chaplin, A. D. C., The Castle, Dublin, is first for his bay gelding Pioneer by Pilot, dam by Dounfuen; Joseph Mulcell, Ternon Boyle, second, for C. Ranger by Chit Chat; J. Murphy, Whiteleas, Kildare, third, for Roscommon by Tom Steele; the fourth went to Daniel Dunn's Rambler by Arbutha; an H. C. goes to Thos. Turbitt, Owenstown, for his half-bred hunter, winner of the Ward Hunt Cup, 1870, and a commend to C. Bury, Woodville, Robertstown, for Dove, by Cheerful Horn. Many horses in this section went well over the high leap, the first prize going to Captain Ross, Scot's Greys, for a really clever hunter by Mallet dam by Navarino. Hunters 5 years old, equal from 11st. to 12½st., numbered 40. Captain Chaplin, A. D. C., The Castle, Dublin, was placed first for Tarquin by Harkaway, dam by Frey. He is a powerful horse, with a great body, short back, and well set on his limbs. The second was W. W. Tenant's Eden by Eden, dam Sheela by Birdcatcher. He is a capital fencer, and took the second prize over the high leap. The third prize went to Rev. F. Fitzpatrick, Mohill, for Telegram by Pantaloon, dam by Irish Birdcatcher; a capital horse and fine jumper. C. E. Walker, Moyalty, Meath, came in third for Shrimps by M. D. An H. C. went to Michael Flood, and a commend to R. N. Bate, Purdysburn, for his chestnut gelding by Zouave, dam Eugena. The show of young horses was most creditable, with scarcely an exception. Of four-year-old colts, equal to 13st. 7lb. and upwards, there were 42 entries. J. Morrin won the first prize, and the Dublin Citizens' £100 Challenge Cup, open to horses from 4 to 6 years old, the property of *bona fide* tenant-farmers, whose occupations do not exceed in value £500 per annum, to which the Society adds £20. The second goes to D. A. Mortimer, Mullagh; the third to Robt. Smyth, Emyvale; and a commendation to H. M. Richardson Rossfad, Ballycassidy. Of four-year-old fillies up to some weight there were six entries. The prizes were: first, Thos. Bradley, M.D., Kells Grange, Kilkenny; second, Thos. Connolly, M.P., Castletown; third, Samuel Ridgeway, Geashill; fourth, A. A. Lawder, Drainsna. Of three-year-old colts up to from 11st. to 13st. 7lbs. there were 43 entries: the first prize went to Mr. Archdell, Crocknaerieve; second, D. A. Mortimer, Lake View Mullagh; third, Robt. Smyth, Emyvale; with R. M. Richardson and David Rogerson commended. Four-year-old fillies equal to the same weight numbered 16 entries: first, A. E. Connolly, Bleakhall-st., Dublin; second, R. E. Baillie, Dundalk; third, N. M. Archdall; H. M. Richardson commended. The three-year-old colts numbered 22: first, Dr. Shiel, Ballyshannon; second, Gerald Fitzgibbon, Merrion-square; third, N. M. Archdall, Crocknaerieve; fourth, W. J. Perry, Bleak-rock, Dublin. Of three-year-old fillies there were nine: the first prize withheld; second, Wm. Woodhouse, Frankford; third, Major Frend, Feathard Tip. Two-year-old colts, 12 entered: first, Allan Pollock, Lismany; second, Wm. Armitage Moore, Cavan; third, Lord Clanmorriss. Two-year-old fillies, 6 entered: first, Major Looyd, Monaghan; second Mrs.

Corbally, Swords; third and fourth withheld. Yearling colts, 8 entered: first, C. W. Wise, Cahir Tip; second, Allan M'Donogh, Curragh-camp; third, P. F. Casey, Raheny, Dublin. Yearling fillies, 1 entered: first prize, Baptiste G. Graham, Kesh, Co. Fermanagh. Ladies' mares, 15 entered, were all great beauties. The Misses Turbet, Owenstown, taking the prizes for two half-bred mares, Rose and Kitty. Park horses, 9 entries; first, Peter Lalouette, Princes-street, Dublin; second, Allan M'Donogh, Curragh Camp. Weight-carrying cobs and roadsters, 18 entered: first, C. W. Wise, Cahir Tip; second, Rev. R. D. Faulker, Hollymount, Mayo; third, Mark Colgan, Enfield; highly commended David Rogerson, Roundtown; commended B. C. Russell, Hazlepatch. Cobs or roadsters, 14 to 15 hands high, calculated to carry 13 to 15 stone, 14 entries: first, Patrick Breen, Gorey; second, Wm. Walpole, Ballacolla; third, Bernard Sweeny, Castlereagh, Roscommon. Cobs or roadsters, under 15 hands high, calculated to carry under 13 stone; 12 entries: First, Jno. Wallis, Donnycarney, Dublin; second, James Maher, Enfield; third, David Rutledge, Tuam; highly commended, D. H. Plunket-Johnstone, Dalky; commended, Capt. Humphrey, Strabane. Harness horses or mares, bred in Ireland; 11 entries: First, Capt. Coote, Castleknock, Dublin; second, Thos. S. Palmer, Merrion-square, Dublin; commended, Allan K. Algie, Hollymount, Mayo. Ponies; 17 entries: First, Dermot Cole, Kinnegad, and the Austin £5 Cup; second, Capt. Tuthill, Nass; third, Miss Lane, Shannon; highly commended, N. J. Harrison, Clonard, Kilkenny; commended, J. K. Rogerson, Olney, Roundtown. Ponies under 12 hands high: First, J. F. Bewley, Black Rock; second, Peter Noon, Roebuck Park, Dundrum; third, R. H. Morrison, Leeson Park, Dublin; highly commended, L. Keogh, Queen-street, Dublin. The smallest pony in the yard: W. Brown, Dalkey. Broodmares—Thorough-bred mares, or having had foals in 1869 or 1870; 10 entries: First, C. L. Ellison, for Blue Bonnet, by Young Melbourne, dam by Teddington; second, Thos. N. Wade, Shrubbery, Killock, for Martha, by Windfall, dam by Launcelot; third, Thos. Connolly, M.P., Castletown, Celbridge, for Barbara, by Barbarian, dam by Birdcatcher; commended, Sir Percy Nugent, for Cascade, by Artillery, dam Crystal, by Crosier. Mares calculated to produce weight-carrying hunters, in foal or having had foals in 1869 or 1870; 20 entries: First, Robt. G. Cosby, Stradbally Hall; second, Jno. Morrin, Dunshaughlin; third, Robt. Bodkin, Armagh, Co. Galway; fourth, Thos. Lindsay, Derry Bog House, Co. Down; highly commended, Joseph Reeves, Athgarvan.

The first section of cart horses contained but three stallions over four years old. The Earl of Luan, Castlebar House, Mayo, exhibited a very powerful Suffolk stallion, which was put first, and also awarded the Royal Agricultural Society's £50 challenge cup, but after wearing the cards for the first day, a veterinary examination declared him unsound, and the honours were transferred to the second prize, Sir Patrick Wallace, the property of Messrs. Mooney, Cruiline, and Co., Dublin. The Earl's horse is a grand one in all his points, but was not active on his fore legs. Sir Patrick Wallace is a well-framed powerful horse of great substance, grand fore hand and quarters well ribbed, clean limbed, and active. At the show of last year, the judges declared this horse, and all shown with him, as wanting in merit, although two out of three of the judges were the same on both occasions. Four stallions under four years old made up the next section, but unevenly matched as to age, two of them being a year older than the other two; Peter O'Mally, Santry, getting the first place for Orphan, a yearling, and half-brother by the sire's side to the prize horse

in the aged section; S. Rait Kerr, Edenderry, and W. Pallon, V. S., Kilkenny, being second and third respectively, for two two-year-olds, Lanark and Tenant Right, both imported Clydesdales of good promise. Four fillies under five years old made up the next section, in which Gerald Rice, Grange Raheny, took the first prize with Jess, half-sister to the prize stallion. She occupied the same position last year as a three-year-old, and is a full bred Clydesdale of great power and symmetry. The second went to Mr. Archdall, of Crocknauerie, for Brown Bess, a very handsome four-year old Clydesdale. The Messrs. Mooney had an H. C. for Nora Creina, a fine dark-brown two-year-old filly, and full sister to the prize horse Sir Patrick Wallace: she held the same position last year as a yearling. Of agricultural brood mares there were but two imported Clydesdales, one S. R. Kerr's Bell, the other C. L. Ellison's Bonnet, which were placed in the order named.

According to general expectations the show of sheep was a good one, numbering 141 entries in all the classes and sections; but the show of pure Leicesters was not, in too many cases, in purity of type equal to what we should have as breeding stock. This class of sheep, to which almost all other breeds owe so much, was continued to Thos. Marris, The Chase, Uleby; J. G. A. E. Gould, Poltimore, Exeter—the only exhibitors from England; Wm. Owen, Blesinton; W. R. Meade, Ballymartle, Balinhassig, Cork; Seymour Mowbray, Killeary, Monrath; J. G. A. Perrin, Chantilly, Co. Dublin. The Messrs. Gould's sheep are strong animals, but coarsely bred; while Mr. Marris' were much neater, higher bred, and very even. However, in the thirteen entries which made up the section for shearling rams, the judges seemed to have forgotten all former precedent, and run on size and weight, giving the Messrs. Gould the leading prizes, Wm. Owen a third, W. R. Meade a fourth, S. Mowbray an H. C., with Marris' very neat rams unnoticed. In rams of any other age there were but ten entries, where the judges preferred the lesser weighted rams, giving Mr. Marris the first and third place and an H. C., Mr. Meade the second, and Mr. Owen a commendation; but the Messrs. Gould did not exhibit in this class. From the high position Messrs. Owen and Meade have occupied for many years, and the pains and expense they go to in introducing rams from the most renowned English breeders, and the symmetry of their sheep, they should certainly stand higher. In the section for pens of three-shearling rams, which is unquestionably a very trying one on breeders, there were seven entries—Mr. Marris two pens, Messrs. Gould one, Mr. Owen one, Mr. Meade two, and Mr. Mowbray one. Mr. Marris takes the first and third prizes, and Messrs. Gould the second; Mr. Meade an H. C., and Mr. Owen a commendation. Of shearling ewes there were but four pens, of five each. Mr. Marris two, Messrs. Gould one, and Mr. Mowbray one. Messrs. Gould take first, and Mr. Marris the second and third places, and S. Mowbray was highly commended. Mr. Mowbray was the only exhibitor of ewes that had reared lambs in 1870, which of course gave him a walk over.

The Border Leicester class came next in order, and were well represented; twelve very fine shearling rams made up the first section, where Mr. Thomas Robertson, Narraghmore, Kildare, stood first, for an exceedingly nice one, with good wool, good ends, back, and ribs, and in prime working condition. Captain Cosby, Steadbally Hall, Queen's County; R. F. Franks, Jerpoint Hill; and Loftus H. Bland, Blandsfort, taking the prizes in the order named. In aged Border rams there were but two exhibitors, Mr. Bland, and Earl Fitzwilliam, from his Irish demense, Coollattin Park, Wicklow; Mr. Bland taking more than the lion's share, the noble Earl getting the

third place. Mr. Bland had one of the finest rams of this pen-filling breed in the show, but by some mistake he was entered in a wrong section, although the judges did not like leaving him out in the cold, and recommended him a special-prize medal. Seven pens of shearlings of three each made up the next section, and a splendid one it was, Messrs. Bland, R. H. Franks and Robertson taking the honours respectively. The next section was for shearling ewes, of which there were four pens of five each, Messrs. R. F. Franks, Bland, and Colonel Leslie, Castle Leslie, Glessingh, being the only exhibitors, who take their places in the order named. Of ewes that reared lambs in 1870, Mr. Bland and Lord Fitzwilliam were the only exhibitors, with a pen each, and they divided the premiums.

This variety of sheep, though rams, have been introduced from time to time to cross with other, has not been bred to any extent in Ireland. In size and symmetry it is fully equal to any breed, and its wool is only equalled by the Roscommon in length and lustre, while the prize shearling ram clipped 23½ lbs. of wool in April last. Mr. Caleb Goring is the principal, if not the only breeder of Lincolns in Ireland; he exhibits eight out of eleven shearling rams, one of them the Oxford second prize. He exhibits three out of five aged rams, two out of four pens, of three each, of shearling rams; he is equally strong in the ewe sections, and takes all the money prizes offered in the class.

The next variety of sheep is that which has got such notoriety as the Roscommons, but which owes its excellence to the importation of the pure Leicester sort, encouraged and fostered by the old Farming Society of Ireland, formed in 1800, when the Dublin Society thought well of devoting its time and energies and cash to silk and woollen manufactures, and even became retailers of those goods; and to the Farming Society of Ireland we are mainly indebted for the introduction of improved Shorthorns, Longhorns, and Southdowns as well as Leicesters.

The show of Rosecommon sheep, at length accorded a separate class, has been most creditably represented. Eight magnificent fellows competed in the one-shear section. Mr. Roberts, Farn, Strokestown, leads off with Xenophon, a worthy son of last year's prize ram XXX; scarcely inferior were Mr. R. Flynn's second and Mr. Wm. Cotton's third prizes. Twelve Grand Sultans made up the aged ram section; Mr. J. Blood Smyth, Fedamore, Limerick, was put first for a grand ram bred by Mr. Roberts, and that was first at this show in 1865, and at the Tralee Royal and Cork and Limerick local shows 1869; Mr. Roberts and Mr. Flynn coming in second and third. In the next section there were five pens of three each of shearling rams; Mr. Roberts, W. Cotton, and R. Flynn taking the honours respectively. In shearling ewes there were four pens; Cox Cotton first, Wm. Cotton second, and J. Blood Smyth third. Of ewes that reared lambs in 1870 there were but three pens of five each; Wm. Cotton one, and R. Flynn two, who shared the money.

In the short-wooled class the beautiful Southdowns have disappeared altogether from our shows, and more the pity; so the Shropshire Downs had it all to themselves, and so had Mr. C. W. Hamilton, who took all the prizes except a fourth, which went to Mr. Morris for a shearling ram.

The show of wool was small, 11 parcels of 3 fleeces being staged, in 5 sections; the prize being a large silver medal in each section. The awards were: for Leicester wool, Seymour Mowbray; Border Leicester, Robert Cotton; Lincoln, Mrs. Rooney (hogget); ditto, Robert Cotton H. C. for wether; other Long-wool, William Cotton; ditto, Mrs. Rooney commended; Shropshire Down, Robert Cotton.

First day, high leap over hurdles trimmed with gorse 4½ feet high. First class for five-year-old hunters carrying 14 stone. Twenty-four entries were made for this leap, many of them coming out from the lighter weight carrying classes; the jumping on the whole was good: first prize to Captain Ross, Scots Greys, Curragh Camp, for his hunter by Mellit, dam by Navarino, and the prize horse in his section; second to W. W. Tennant's Mobarrene Tip for Eden, by Eden, dam Sheelah by Birdcatcher; this horse was the second prize in the section open for horses to carry 11 to 12st. 7lb., but carried 14 stone to the leap. The second class for leaping was for five-year-old hunters carrying 13st. 7lb. and upwards, hurdles 4½ feet high: first prize, R. Flynn's four-year-old filly, Annie, by Mayboy, dam by the Dean; second, Arthur A. Lawder's four-year-old filly, Fawn, by Roebuck, dam by Small Hopes. The third class was open for ladies' horses, weight carrying cobs, roadsters, &c., carrying 15 stone and upwards, over hurdles 4 feet high: first prize, David Rogerson's bay cob, no pedigree; second, Bernard Sweany's Cock Robin, by Tom Steele. The fourth class was for ponies 12 to 14 hands high, over hurdles 3 feet high: prize to J. K. Rogerson, Olney, for bay mare; no pedigree. The fifth class was for ponies under 12 hands high: prize to R. H. Morrison, Leeson Park, for bay mare; no pedigree.

Second day, over stone wall, commencing at 4½ feet high, to be progressively increased to, but not exceed 6 feet high. The fencing was admirably contested by 19 horses, till there remained but three that cleared the wall satisfactorily at its full height, viz., Mr. Low's Jack Spring, Captain Morgan's Chatterbox by Chit-chat, and Mr. Joseph Kilgannon's Surprise, the prize was awarded, in the first instance, to Captain Morg m's Chatterbox, from the superior way in which he flew over the wall, but on going to the scales his rider was under the required weight of 12 stone, as was also the rider of Surprise, so the prize fell to Mr. Low's Jack Spring, and no second prize was awarded.

The third day's business was principally devoted to the wide leap, over a hurdle, trimmed with gorse 2½ feet high on the taking-off side, with 12 feet of water. Twenty-nine horses came to the scratch for the prizes of £10 and £5. All but two jumped the obstacles, but at the finish the judges were so well pleased with the performance of Mr. Low's Jack Spring, and Mr. Flynn's Valeria, that they awarded each a first prize, and Mr. Russell's Limerick Lass was recommended the second honour. Limerick Lass performed in grand style till the last two rounds, when her fore part came in contact with the hurdle.

On the last day, Friday, a sweepstakes of 10s. each, with £3 added, was competed for over a hurdle trimmed with gorse, which was won by Mr. Richard Flynn, on his four-year-old filly Annie, the winner of the four and a-half feet hurdle leap in the second-class, and thus ended the finest horse show yet held in Ireland, and the sports connected with it.

The arrangements were excellent, and reflect great credit on the Committee of Management; but there are two things which require consideration before the next year's show, viz., that the veterinary inspection of sires and brood mares take place before they are submitted to the judges, or, at least, before the awards are made public. If this had been the case Lord Lucan's magnificent Suffolk Punch would not have won the first prize card and ribbon in his class, and that of the Royal Agricultural Society's Challenge Cup for the first day. The other is that it is not fair when prizes are open to young and aged horses to weight them equally over hurdles and stone walls; had the horses been weighted according to age Captain Morgan's Chatter Box, a four-

year-old gelding, a most perfect jumper, and made the first prize for his splendid performance over a six feet high stone wall, would not be disqualified because his rider was 10 lbs. light of 12 stone, the prescribed weight.

The judges were:

THOROUGHERED AND OTHER SIRES AND BROOD MARES.—Captain Archdall, M.P., Castle Archdall, Kesh; Major Barlow, Hasketon, Woodbridge Suffolk; W. Kennedy, Geganstown, Brannoxtown.

HUNTERS.—Major Borrowes, Gilttown, Newbridge; H. Briscoe, Tinvane, Carrick-on-Suir; R. Watson, Ballydarton, near Bagnalstown.

YOUNG HORSES SUITABLE FOR HUNTERS.—D. Beatty, J.P., Ennisceorthy; Hon. W. Arbuthnot, Hatton, Montrose, N. B.; W. Dunne, Collinstown, Clondalkin; Captain R. Bernard, Forenaughts, Naas; R. S. Fetherston H., J.P., Knockview, Killucan; R. B. P. Perse, Moyode Castle, Athenry.

LADIES' HORSES AND HARNESS HORSE OR MARE BRED IN IRELAND.—J. Devenish, Rush Hill, Drumsna; Lieutenant-Colonel Hillier, Constabulary Depot, Phoenix Park; Major Wilkin, Castleknock Lodge, Castleknock.

WEIGHT-CARRYING COBS AND ROADSTERS AND PONIES.—R. Moore, J.P., Killashee, Naas; H. M. Richardson, Rossfad, Ballycausidy; Major D'Arcy, J.P., Castlepark, Ballinasloe.

AGRICULTURAL HORSES.—Hon. H. Massy, Clarina, Limerick; N. M. Archdall, Croeknacreeve, Ballinamallard; J. Simson, Cloona Castle, Hollymount.

JUMPING PRIZES.—Sir C. E. Kennedy, Bart., Johnstown, Rathcoole; B. R. P. Perse, D.L., Moyode Castle, Athenry; L. Morrogh, 5, Great Denmark-street, Dublin; S. A. Reynell, J.P., Archerstown, Killucan; Sir J. Power, Bart., Kilfane, Thomastown; Major Wilkin, Castleknock.

VETERINARY SURGEONS.—D. Paley, Stephen's Green; T. D. Lambert, William-street; M. Murphy, Parkgate-street.

AUSTRALIAN EXPORTATIONS. — The purchase of Master Buttery (13311), the first prize bull at the Royal Chelmsford Show for 1,200 gs. was the talk of the colony for many years; but his career in Melbourne was not of long duration. Since his time, Shorthorn breeders have looked to Mr. R. McDougall for their best blood, as he is known to be a pedigree man. Ten years ago he exported largely, and has from time to time had valuable bulls sent out to him. Last year he sold a large portion of his herd, upwards of 100 head, for an average of over 60 gs., and this season Mr. McDougall has made a short visit here for the purpose of buying some of the best Booth bulls for the selected portion of his herd. Negotiations for Mr. Carr's young pure Booth bull Earl of Clare fell through, but Mr. McDougall had previously bought from Mr. Booth, of Warlaby a white bull calf Field-Marshal Booth for 800 gs., of great promise, and by Commander-in-Chief, from Lady Mirth, who is out of the same dam as the celebrated prize cow Lady Fragrant. He also bought Shaw Farm (26790), who has been in service at Her Majesty's Majow Farm, and is of the same family as the 1,000 gs. Patricia. Mr. Dudding's first prize bull calf, Robin Hood, at the Royal and Yorkshire Shows was bought for 150 gs.; he is by Mr. Foljambé's Robin, from Countess of Wragby, by Booth's Sir Roger, dam of Countess of Yarborough, the second prize yearling heifer. The first prize Hereford bull calf at Oxford also goes out with these Shorthorns; bred by Mr. Taylor, of Showle Court, he is by Triumph, from Hazel 3rd, and called Oxford Lad. They left Gray's by the Anglesey last week, in charge of their owner. Some young bulls have also been sent out to Mrs. Clark Irving's stations near Sydney. Seven years ago the late Mr. Clark Irving purchased some stock of Mr. Jonas Webb and other breeders, including some of the Cambridge Rose tribe. The three bulls now exported are of Bates blood; two of them were bred by Mr. J. P. Foster, of Killahow, and are both sons of Lord Dunmore's 2nd Duke of Collingham, and from dams one of Lord Spencer's Florentia family, and the other from Caroline 5th, of the Kirklevington Craggs tribe, for which Mr. Foster gave 205 gs. at the Didmarton sale. The third bull, Famous Gwynne, was bought at Mr. Chas. Howard's sale for 110 gs.

WHAT TO TALK ABOUT.

The off, or second season has set in. Beyond the fixtures which appear in our list, will be many a more local gathering, where there will be something to see and something to talk about. And the outside, or more general interest of these anniversaries goes to centre the rather on what is said than what is shown. By the time we have run through the Western, the Royal, the Yorkshire, and a few other leading exhibitions, we come to know the crack stock of the year tolerably well by sight and hand; and neighbour Brown may manage to beat neighbour Jones without creating any great sensation out of their own immediate circle. But even a sheep sale or a ploughing match will often serve as the occasion to draw out an M.P. or a leading landlord, if it should not give a straightforward tenant the chance of expressing his opinions. It is only to be hoped that the most may be made of such openings, and that people will not rest content with the expression of stale platitudes; such as how the interest of everybody is identical with the interest of everybody else—how every man who sits under his own squire is certain sure to farm under the best landlord in England—or, how it is very improper to broach agricultural politics at agricultural meetings.

If only fitly handled, there are many questions which would promise to pay for a little closer examination when owner and occupier meet each other, as it were, on their own common grounds. Without ever descending to personalities, there is nothing more wholesome than driving the nail home, as there is nothing more absurd than tacitly assuming a man is going to do better simply because he has been doing wrong so long, and nothing more idle than passing over abuse from the fear that the mention of it may be unpalatable to some offender in the company. When the young lady asked the young gentleman if he could spell such a very long word as opportunity the abashed youth began gradually to realise the fact of what a tongue-tied simpleton he was.

Still it is necessary to proceed with some discretion, and fortunately the key-note has already been struck. A reverend man and, moreover, a reverend landlord has been kind enough to indicate the course which should be taken, the tone which should be observed at the celebration of these festivals. He has gone yet further, and laid down in a few broad lines the relative duties of Landlord and Tenant. Thus early, at the very outset of the proceedings, it is scarcely possible to overestimate the value of such advice, when coming from such a quarter; and we accordingly took care to give in our last number the address of the Reverend Brodie Innes when speaking for "the Landlords of the Country" at the dinner of the Morayshire Farmers' Club. It may even be worth while to dwell a little longer on this, the more especially as the name of the Duke of Richmond was introduced, and the district stands deservedly high for the system of cultivation pursued. Mr. Innes, then, in classifying the features of his discourse, says, firstly: "The best thing a landlord could do was always, and in every way, with a due regard to his own rights, to accommodate himself to and consider the interests of his tenants—to hold them together, to come and see them at such meetings, to see them at their own farms, and to be amongst them as much as possible. These were things which he considered to be landlords' duties." This may, perhaps, sound a little vague; as, when given in detail, attending

agricultural dinners, and visiting the tenants on their farms, although no doubt very excellent things in their way, would seem to confine landlords' duties within a somewhat limited scope. Again, it is clearly very desirable that the two should see something of each other, but a landlord who is amongst his tenants "as much as possible," that is who is continually over-looking them, is apt to become in reality an intruder, and his interference to do more harm than good. An occasional ride over the estate, when the owner of the soil may see and judge for himself how it is worked and what is wanted, should be productive of a deal of good, but any man who is always busying himself about another man's business is, in any state of life, but too often in the way. Secondly, or on the other side, Mr. Innes cautions his hearers "they should all try to make the most of the points on which they agreed, and to make the least of those points in which their interests might probably appear to differ; and if there were differences, to keep them at home, and say as little about them as possible, or, according to the old Scotch proverb, to wash their dirty linen in the house." And here we arrive at the grand deduction that the best thing the farmers can say at these meetings is to say—nothing whatever! If they altogether agree with what the landlords have said there can naturally be no necessity to say anything more; and if they do not they had better keep their differences at home, or, as Mr. Innes elegantly puts it, wash their dirty linen in the house. And all this being interpreted means to say—there are no public questions which concern the farmer, that he has no rights to assert, no grievances to complain of, about which he should have the impertinence to speak in any company of his fellows. Was there such rubbish as this ever uttered? The Reverend Brodie Innes says "they must stick to their class, to their interests as tenant-farmers;" and how must they do so? By doing and saying nothing. Does the reverend gentleman imagine that any great principle was ever recognized, any great wrong ever redressed without the expression of popular opinion upon it? He is astonished to see there are "a great many farmers who are ready to join in the cry of injuries which do not touch themselves, who said there were certain evils over Scotland in one way or other, and they would like to protest, like to petition Parliament, and to try to get them removed. When they came to ask if they themselves suffered from these evils, they admitted they did not, but they knew somebody in the neighbourhood, or a good way off, that did." And what then? If, as Mr. Innes advises, these men are to stick to their class, surely it is all to their credit that they wage war against evils, even though these do not affect themselves but only their class. Was ever a more mean selfish doctrine sought to be inculcated! Let us take as a case the crying evil of the day, the damage done by game: if a tenant wash his dirty linen at home, that is, if he dare complain to his landlord, it is about equal main and chance as to his receiving notice to quit, or getting any redress. If, on the other hand, he himself should make a public matter of his "injuries," he is only the more certainly courting his own ruin. He becomes a marked man, not merely with his own, but with all the landlords in the district. An evil such as this is only to be effectually attacked by washing not the tenant's but the landlord's very dirty linen in public—to be "cried"

down, to be "protested" and "petitioned" against by those who "stick to their class," though they do not suffer themselves, but know of some, far or near, who do.

Still it is well to be warned in time of the consequences, and Mr. Brodie Innes, in conclusion, says, impressively: "If the landlords seeing, perhaps, here and there, occasion for difference on some points, were to unite as a class against the tenant-farmers of Scotland, and say they would stick to their own class as against tenants, what would the result be?" Well, we repeat, What would the result be? If the landlords, seeing there were differences which required proper adjustment, still refused to go into these, though the tenants as a class asked that such matters should be fairly settled, the

result, as Mr. Innes appears to imply, would be that the tenant-farmers of Scotland would be turned out of their farms. Was there ever such rubbish as this? or, if the threat does not amount to thus much, what does it mean? What could the landlords of Scotland unite to do *against* the tenant-farmers of Scotland, when they "protested" against abuses, and "petitioned" for rights which would insure the land being maintained in a better state of cultivation?

Mr. Innes regretted to see so few of the landlords of Scotland present at the dinner; but if these gentlemen were to take their cue from him it was, perhaps, quite as well that they kept away.—*Mark Lane Express*.

LOCAL TAXATION.

The Select Committee of the House of Commons appointed to inquire and report whether it is expedient that the charges now locally imposed on the occupiers of rateable property should be divided between the owners and occupiers, and what changes in the constitution of the local bodies now administering rates should follow such division, have considered the matters to them referred, and have come to the following resolutions, which they have agreed to report to the House:

1. That your committee, without pledging themselves to the view that all rates should be dealt with in the same manner, are of opinion:

(a.) That the existing system of local taxation, under which the exclusive charge of almost all rates leviable upon rateable property for current expenditure as well as for new objects and permanent works is placed by law upon the occupiers, while the owners are generally exempt from any direct or immediate contributions in respect of such rates, is contrary to sound policy.

(b.) That the evidence taken before your committee shows that in many cases the burden of the rates, which are directly paid by the occupier, falls ultimately, either in part or wholly, upon the owner, who, nevertheless, has no share in their administration.

(c.) That in any reform in the existing system of local taxation, it is expedient to adjust the system of rating in such a manner that both owners and occupiers may be brought to feel an immediate interest in the increase or decrease of local expenditure, and the administration of local affairs.

(d.) That it is expedient to make owners as well as occupiers directly liable for a certain proportion of the rates.

(e.) That, subject to equitable arrangements as regards existing contracts, the rates should be collected, as at present, from the occupier (except in the case of small tenements, for which the landlord can now, by law, be rated), power being given to the occupier to deduct from his rent the proportion of the rates to which the owner may be made liable, and provision being made to render persons having superior or intermediate interests liable to proportionate deductions from the rents received by them, as in the case of the income-tax, with a like prohibition against agreements in contravention of the law.

2. That your committee have examined many witnesses, and received at their hands very conflicting opinions as regards the proportion in which the burden of rates at present falls relatively on owners and occupiers.

3. That in the event of any division of rates between the owner and occupier, it is essential that such alterations should be made in the constitution of the bodies

administering the rates as would secure a direct representation of the owners adequate to the immediate interest in local expenditure which they would thus have acquired.

4. That justices of the peace should no longer act *ex officio* as members of any local board in which such direct representation of owners has been secured.

5. That the great variety of rates levied by different authorities, even in the same area, on different assessments, with different deductions, and by different collectors, has produced great confusion and expense; and that, in any change of the law as regards local taxation, uniformity and simplicity of assessment and collection, as well as economy of management, ought to be secured as far as possible.

6. That the consolidation into one rate of all local rates collected within the same area is a matter of great importance; and that your committee concur in the resolution of the Select Committee on Poor-rates Assessment, 1868, which recommended one consolidated rate, viz., "that a demand note should be left with each ratepayer on the rate being made, stating the amount of the requisitions, the rate in the pound for each purpose, and the period for which the rate is made, the rateable value of the premises, the amount of the rate thereon, and of each payment" of the instalments of the rates.

7. That whilst it is necessary to make provision for limiting, as far as practicable, the disturbance of existing contracts, it would be, on many grounds, undesirable, and almost impracticable, to extend the exemption of property held under leases from the operation of the proposed changes until the expiration of such leases.

8. That the exclusion of the owners of property held under long leases from the right of voting for local authorities, after the proposed changes had taken effect in respect of other property, would lead to much inconvenience and confusion, while, on the other hand, it would be inadmissible to allow them to vote unless they acquired an immediate interest in the rates.

9. That the difficulties of the case would be equitably met by exempting the owners of property held under lease from the proposed division of rates for a period of three years, and by providing that after the expiration of that time the occupiers of such property should be entitled, equally with all other occupiers, to deduct from the rent the proportionate part of the rates to which the owner may become liable, power being given to the owner at the same time to add to his rent a sum equivalent to the like proportionate part of the rates, calculated on the average annual amount of the rates paid by the occupier during the three years above referred to.

10. That by the terms of the reference to them, your

committee were limited to the question of the division of the charges on rateable property between the owners and occupiers, and what changes in the constitution of local bodies administering rates should follow such division; and they have consequently been precluded from entering upon the inquiry of the relations of local and imperial taxation, and the nature of the property liable to the same.

11. That your committee are of opinion that the inquiry on which they have been engaged forms only one branch of the general question of local taxation, and that other considerations, besides those which have been submitted to their investigation, should be previously taken into account in any general measure giving effect to the above recommendations.

15th July, 1870.

The committee was thus composed: Mr. Hunt, Mr. Ayrton, Sir Massey Lopes, Mr. Acland, Mr. Corrance, Mr. Rathbone, Mr. Pell, Mr. George Gregory, Sir William Tite, Mr. Fielden, Sir Hedworth Williamson, Mr. William Henry Smith, Mr. Backhouse, Mr. Wheelhouse, Mr. St. Aubyn, Colonel Brise, Sir James Lawrence, Mr. Birley, Mr. Walter, Mr. Charles Sedly, jun.; Mr. Goschen (Chairman).

The witnesses examined were: Messrs. D. P. Fry, F. J. Cochrane, Tom Taylor, F. B. Garnett, H. A. Hunt, T. H. Earle, G. A. Webb, C. S. Read, M.P., J. Lambert, H. Pownall, W. H. Wyatt, F. H. Glossop, Genge Andrews, Rogers, Squarey, Sir S. Waterlow, Captain F. L. Dashwood, Dr. W. N. Hancock, Sir T. Thwaites, J. Caird, Hayward, Grant, Innes, May, W. Middleton, T. Aveney, and Dudley Baxter.

LOCAL TAXATION.

The Central Chamber of Agriculture called a public meeting at Oxford on the Wednesday in the Show week for the purpose of discussing the subject of local taxation. Colonel Tomline, chairman of the Chamber, was to have taken the chair at the "banquet," but having met with an accident he was unable to do so, and Sir Massey Lopes occupied his place. Sir George Jenkinson, owing to unforeseen circumstances, could not attend the meeting; Colonel North, M.P., was also absent; Mr. F. S. Corrance, M.P., who had promised to attend, did not appear; and Mr. Barnett, M.P., was unavoidably kept away. The attendance generally was very poor, and the chairman, in opening the business, regretted the smallness of the company.

The CHAIRMAN having then proposed "The Health of Her Majesty the Queen," the only toast given, moved the following resolution: "That this meeting protests against the present unjust exemption of income derived from personal property from contributing towards the various objects for which funds are now raised by local rates, and is strongly of opinion that this grievance affects owners and occupiers of house property in towns quite as much as the landed interest, and, therefore, that both descriptions of property are equally interested in the removal of this anomaly." Referring to the Act of Elizabeth, which ordained that everyone should pay towards the maintenance of the poor of the country according to his means, that Act, no doubt, excepted from such taxation woods, forests, and mines. He would say, let them be included, and also let personal property be included, for "what was sauce for the goose was sauce for the gander." What they complained of was that they, the owners and occupiers of land, paid not only their fair share of imperial taxation, but they were also called upon to pay the exceptionally and ever-increasing income tax, beyond the imperial burden. They were called upon to pay income tax in disguise to the extent of about 13 per cent. over and above the owners of other description of property. They had also to pay new impositions entirely unconnected with Poor-law management, and now they were called upon to pay an education rate. That was stated to be 3d. in the £, but he believed it would more often be 6d. He contended that all these rates should be general in their incidence, and that all descriptions of property, in-

cluding personal incomes, mines, woods, &c., should pay a fair proportion of taxation.

Mr. R. H. MANSFEN (Staffordshire) seconded the resolution, maintaining that manufacturers paid only a very small proportion of taxation for labour compared with the payments which the agriculturist—the owner and occupier of land—was called upon to pay.

Mr. NIELD (Manchester) supported the resolution in a lengthy speech, in the course of which he was frequently interrupted.

Mr. RUSSEN (Worcestershire) also supported the resolution, which was carried.

Mr. A. PELL, M.P., moved: "That the proposal to divide the payment of rate between owners and occupier does not afford any relief or remedy for the grievance complained of in the incidence of local taxation, and that no settlement of the question could be accepted as final or satisfactory which is not preceded by a thorough inquiry to determine whether the objects now locally provided for are of local or national obligation."

Mr. SEWELL READ, M.P., seconded the motion. He had come to Oxford direct from the House of Commons that day, where he had been advocating the extinction of all ground game, and he hoped he should be excused if he should wander a little from the subject in hand. He was himself a tenant-farmer, and might be said to represent the occupiers of land in South Norfolk, and if he said anything in favour of the owners of land, they must not suppose that his sympathies were altogether in favour of those owners. He protested emphatically against the doxma that because it was possible to say that the owners of property might incur more benefit from the remission of local taxation than the tenant, therefore it was a question which ought not to occupy the attention of the Chamber of Agriculture. He protested against any such narrow-minded considerations. What did the Government propose to do for them in the circumstances in which they were placed? They proposed to set landlord and tenant by the ears—to divide the rate between the owners and the occupiers. In fact, by putting the lots into two baskets, on the back of one donkey, they wanted to make them believe that the same beast did not carry the whole burden.

Col. LEWIS (Wales) supported the resolution, which was carried.

Mr. HOLLY (Devonshire) moved the last resolution: "That, until the question of local taxation reform has been satisfactorily dealt with, this meeting pledges itself to oppose most strenuously the imposition of any fresh rates on the present unjust basis, for such purposes as national elementary education, expenses of elections, turnpike roads, emigration, &c."

Mr. G. WHITTAKER (Worcestershire) seconded the resolution, which was carried, and the meeting broke up.

[According to the "organ" of the Central Chamber, the "general company consisted mainly of farmers attending the Royal Agricultural Show;" whereas *The North of England Farmer* "regrets to say the meeting was worse than a failure. Instead of 150 being present, as the authorities of the Central Chamber represented there would be, there were only between fifty and sixty, twenty of whom were reporters with free tickets and two-thirds of the others were induced to attend by a Worcester man. This is not our idea, we wish to say, but the view of a secretary of a provincial chamber, who was present."]

LOCAL TAXATION.

At the quarterly meeting of the Nottinghamshire Chamber of Agriculture held at East Retford, the attendance was not so large as had been expected. In consequence of the Education Bill having passed the House of Commons, the subject was not discussed; and Local Taxation was thus the only one left.

The Rev. C. NEVILLE moved the first resolution: "That real property as opposed to personal property is subjected to much greater burdens in respect of the maintenance of the poor, and other taxes, than it is entitled justly to bear; this meeting is, therefore, of opinion that the area of rating should be extended so that the whole income of the country, however derived, should bear its fair share of taxation." There was, no doubt, a difficulty in the country in getting farmers to unite,

and in this respect they were not so successful as the inhabitants of towns; but still if they could arrange to meet and combine together it would be a great advantage to the agricultural interest, as they could then, by united action, press their questions on the Government of the day. It was sometimes said that this question of rating was not interesting to tenants—the landlords had more to do with the question. Now, he had had a good deal of experience in the letting of land, and he was sure that Lord Galway and Mr. Foljambe would confirm what he had said when he asserted that the increase of rating fell very heavily on the tenant. It was the reverse of a landlord's question; but he said this, that if landlords did their utmost to save tenants every shilling they could, tenants in return should do what they could to support the advocacy of such great public questions.

Mr. JOHN WALKER (Mattersea) seconded the resolution.

Mr. GEO. SPORER supported the resolution. He thought the real question at issue lay in a nut-shell. The great question they had to consider was that of rating; and he thought that all farmers there, as well as those who had rateable property of any kind, must see that the rates were increasing to an alarming extent. In addition to those already imposed, they had the prospect of an education-rate, and, looming in the distance, perhaps an emigration-rate. When they saw the position in which the agricultural interest was at present, and the fluctuations which were inseparable from this occupation, he thought the time had arrived when the agricultural interest should take the lead in examining into this question, and ask why it was that they were charged with such an amount of rates, and whether other classes should not share the burdens of those rates with them. Their great grievance was, that as holders and occupiers of land they had to pay taxes on land and houses, to the exclusion of personal property or property consisting of shares, money in the funds, &c. The fact was that about two-thirds of the whole income of the country, as matters at present stood escaped taxation.

Mr. F. J. S. FOLJAMBE, M.P., moved the second resolution, "That this Chamber regrets that the Government has made no attempt during the present session to place the burdens of taxation on a more extended and equal basis; and therefore pledges itself to use every constitutional means to produce a speedy adjustment of the question." He quite concurred with the assertion that the Government had made no attempt to settle the great question which they were then discussing, but it must be kept in mind that the progress of the Ministry was one which demanded the strength of a Hercules to carry it out, and that more than one member of the Government had broken down under the labour of the session. He hoped that before the Government framed a measure on such a great question as this, great care would be taken in reference to its provisions, and ample time given for its consideration. So far as the resolution he had read went, he was sure that all who had agreed with the first resolution would have no difficulty in supporting the one he had just read. The duty of all to use every constitutional means for the adjustment of the question was obvious; and this must be done by bringing it before Parliament by petition, supported by the efforts of their representatives in the House of Commons. There was no doubt some reason why the landed proprietor of the country should be called on to pay the taxes; because the original tenure of land was that the defensive forces of the country in time of war should be supplied by the holders. That tenure had now completely altered, but when the Act was passed for rating land exclusively there was very little property of any other kind, and it was not till after the persecution in the low countries and in France that the authors of our now extensive manufactures came to this country and laid the foundation of England's wealth. Our present connections as a nation were now entirely altered, and the necessity of a change in the mode of rating was obvious. It would, however, require great care in the framing of such a measure, for they could not always give a specific value to money. But it was quite incontrovertible that a great part of the income of this country, which had not yet borne its proportion in the payment of taxes, and when land was now so heavily taxed there was great danger that the new rates which were in prospect might be like the last straw, which would break the camel's back.

Mr. H. BEEVOR (Blyth), seconded the motion.

Mr. GODBER (Baldertou), supported the resolution. The House of Parliament seemed to have no time at all to attend to

the landed interest. They seemed to have lost sight of England. They were killing the fatted calf for Ireland, but they turned a deaf ear to the complaints of the farmer. Mr. Lowe, in his grand budget, forgot all about the Malt Tax, and it really seemed that they had no time to attend to the farmers of England, but they must look out for themselves.

The resolutions were carried.

WEIGHTS AND MEASURES.

The following report of a joint committee of the International Decimal Association, and of the Central Chamber of Agriculture, has been issued, under the signature of Lord Fortescue, as chairman: From evidence brought before your committee, it appears that the extreme difference of practice in the weights and measures used in different markets of the United Kingdom, for the sale of grain and other agricultural products and manures, is the cause of considerable inconvenience and loss. The Banbury, Devonshire, Essex, Howden-shire, Kincardineshire, Leicestershire, Malton, Monmouthshire, Norfolk, North of England, North Riding of Yorkshire, Scottish, Warwickshire, and Worcestershire Chambers of Agriculture are unanimous in their opinion that steps should be taken for obtaining a uniform system as speedily as possible; and, from long experience, your committee are convinced that no voluntary or permissive legislation, and that no local arrangement or understanding will enable us to realize the object in view. In the language used by more than one of such Chambers, "Whatever standard be decided upon, the same should be made compulsory throughout the country." Besides, however, a general testimony in favour of uniformity of weights and measures in the United Kingdom, your committee find that a movement has been gaining ground for extending such uniformity among all countries. And your Committee are strongly impressed with the conviction that, dependent as we are upon foreign countries for the supply of grain, other agricultural products and manures, great advantage would be derived if, in making the necessary change, we could contribute to the realization of this larger object. It would save time, it would prevent errors, it would greatly facilitate commercial transactions, if grain were quoted in the same manner in every market of the world, and if our merchants and corn-growers could understand the ordinary quotations from Stettin or Odessa as readily as those from their own home markets. Nor is the object far from practical attainment. Your Committee have learned that considerable progress has already been made in the great work; that a large number of countries, having an aggregate population of more than 200,000,000 (two hundred millions), both on the Baltic and Mediterranean seas, and on the Atlantic and Pacific oceans, have agreed in adopting and are already using the metric system; that this system has just been established throughout our Indian Empire, and that in this kingdom and in the United States of America the use of the same weights and measures has been made legal and permissive. Under such circumstances, and believing that if a change is to be made, it is best to endeavour to secure a system as perfect as possible, one not likely to be again altered, and one equally suitable to the general wants of all classes of the community, your Committee have come to the conclusion that the best mode of obtaining a real and permanent uniformity in weights and measures applicable to the sale of grain and other agricultural products and manures is by adapting our present practice to the metric system. With a view to this object, your Committee beg to make the following recommendations: (1.) That, in the opinion of this Committee, it is desirable that the Government should be requested to act upon the recommendations of the Standards Commissioners in their second and third reports, by legislating, with the least practicable delay, in reference to the introduction of the metric weights and measures in this country, and facilitating their use by making proper arrangements for the legal verification and stamping of such weights and measures. (2.) That the Chambers of Agriculture and the Chambers of Commerce be recommended to petition the Legislature to pass, with the least practicable delay, such enactments as will establish the kilogramme with its decimal multiples and divisions as the standard unit of weight in lieu of the present pound avoird-

dupois and other imperial and customary weights. (3.) That, in the opinion of your Committee, the use of such standard weights should be made compulsory within a definite time; and thenceforth contracts made by any other weights should be invalid. (4.) That, although the Central Chamber of Agriculture has recommended that grain should be sold by the "cental" of 100 lb. (one hundred pounds), which is in use at Liverpool, yet as your Committee find the general average weight of a sack of the different kinds of grain to be about 22½ lb. (two hundred and twenty-four pounds), or the tenth

part of a ton, they are of opinion that it would be desirable to substitute for the "cental" a weight of 100 (one hundred) kilogrammes (or, in other words, "a quintal"), which only differs by a fraction from 220 lb. (two hundred and twenty pounds). (5.) That this report be printed and copies transmitted to all the chambers of agriculture and chambers of commerce, to agricultural societies, farmer's clubs, and municipal councils, with the request that they will circulate the same, and consider the recommendations of this Committee at their earliest convenience.

CALENDAR OF AGRICULTURE.

The harvest over the largest part of the kingdom will be done during this month, an early portion of the crops being cut and carried during the latter end of last month, and the latest harvest extends over the North of Scotland, and in late seasons is often prolonged into October. In these unsteady climates the grains are all cut by hand-sickles, toothed or scythed, tied into sheaves, and placed in stooks of twelve sheaves, often with two placed astride on the top, with the butt-ends meeting, and the grain ends split to cover the ends of the stook. This position defends the stook from rains, and in a dry condition; but, when thoroughly wetted by heavy rains, the drying of the stook is prevented by the covering sheaves, which have often to be removed for the purpose of exposing the stook to the drying winds. Still, it is reckoned a useful precaution. Thatch must be always ready to cover the ricks, in hand-drawn straws from the last year's crop; and in wheat-growing crops it suits well to thrash the new crop for seed, and to draw the straws for thatch from the operation of machinery. But, as before observed, the thatching of ricks of grain will be wholly superseded by the permanent roofs of thin irons which cover the position of the ricks, in a row, with a railway intervening, for the convenience of the grains being conveyed to the thrashing machinery. The arrangement will wholly remove the risk of damage to the ricks before being thatched, which is often both a loss and a perplexing accident. Except in some cases of dry lands, early climates, and very short crops of straws, all grains should be tied into sheaves for the purpose of convenient handling, and for the better sentching by machinery. Barley and oats, which are the crops that are treated in broadcast, may lie in swathe for some days, turned over, and then tied into sheaves. Few crops are so short in straws as not to admit this manufacture. The extreme shortness of straw prevails only on the chalks and sands of the southern counties, in which the thrashing by flail rather than by machinery is suited for the separation of straws and grains, that are forked together as a hay-rick, making a slovenly work, partly necessary, but mostly continued from custom.

Peas are ripped, torn, or cut from the ground by hand-sickle, laid into small heaps, that are frequently turned over to procure a uniform dryness, and then carried into ricks or barns. The thatching of the ricks must be done quickly, as leguminous bodies imbibe and retain much moisture. A platform of wooden beams and bars, placed some feet from the ground, is a very suitable position for peas and beans. An open space underneath is advantageous to any ricks of dried herbage.

Machinery cuts beans with a comparative advantage of the stems standing upright, and of strength to withstand the cutting power of the machine, and to fall regularly from its stroke, and, as when cut by hand-sickle, the haulm is tied into sheaves with straw ropes or with tarred twine, which last, being preserved, will last for several years. The ricks being all thatched and secured by ropes, the yard must be raked clean, and all rubbish

carried to a dung-yard, so that a general neatness may prevail on every point of management.

Lay well-prepared earthy composts on grass-lands eaten bare and on lucerne. Being previously scarified deeply, spread the compost evenly over the surface, bush-barrow, and then roll the ground heavily in dry weather. This treatment promotes an early spring vegetation.

Finish the dunging of clay fallows for wheats. Cart stones and tiles to drains. Scour ditches. Repair, straighten, and widen brooks and rivulets, and mix the excavated materials with lime for earthy composts.

In the end of the month scarify the pea and bean grattans, when the quality of the land will produce wheat, as is required from beans, and in some cases from peas; if not, it is referred for oats and barley in the spring. Burn into ashes the rubbish collected by the scarifyings, which will form a dress for the land; and it may answer a good purpose to apply a sprinkling of farm-yard dung to assist the crop of autumn wheat.

But this arrangement wholly depends if the crop of legumes has been thick on the ground and has covered the land with a leafy canopy so close as to exclude light and drought, kill all weeds, retain moisture, engender minute life, and promote its destruction for the purpose of fertilizing the soil. Unless these circumstances are in existence the land must be cropped in the spring, with the advantages of the surface being scarified and the rubbish burnt into ashes.

Plough grass leys for wheat in the end of the month, when the ground may be moistened by rains, and the land may be exposed for a time before sowing. The practice is not much to be commended; for on turnip soils, be the cause what it may, the fact is certain, that the turnip succeeds best after oats; and as in the case of bare fallow lands, wheat on ley just before the following, and being sown upon it, the two crops of the same vegetable are too nearly placed. Plough the green crop lands of next year, and perform the operations of fallowing into the second or third earth with the rolling and clearing away of weeds and stones. The advantage is gained of a forward condition in the spring. Objections have been found to land lying during winter in a fine comminution of particles, which admit the most intimate mixture with water, becoming "sleeched" in the manner of mul, and with its weakness, having the adhesion destroyed, that is so very necessary for the activity of vegetation being promoted. Autumn fallowing can be done only with early harvests and under benign climates, and it may not advance beyond some stray performances.

In the end of the month plough clay fallows for wheat, and sow winter vetches on good lands for the early spring food. Mix the seed with beans or winter barley and rye, which last may be sown as a seed crop, and also for an early green meat for ewes and lambs.

Pick hops. The flowers are cut by scissors from the haulm, and placed in bins; paid by measure at a fixed rate; then carried to the oast, and dried with coke and

sulphur to give a yellow tinge; a slight colouring is sometimes used. The hops are pressed into bags of a certain size and weight, and are ready for the market. The haulm of the hop is used for litter in cattle yards, being slow of decomposition, it must be cut into short pieces. Place the poles on a dry ground in a conical form, with an extreme top covering.

The latest crop of spring-sown vetches along with the second crop of clovers, will form the green meat of the farm, and must be amply supplied to the work horses, to the milch cows at the evening meal, to the young pigs in the store-yard, and to a yard of young cattle, and the earliest calves of the year. A portion of the herbage of the vetches will be provided with an early seeding, and being made into hay, or so far dried as to prevent mould, will form a most valuable food for work horses, and for

keeping stock. The yards must be littered often and thinly with straws cut into short lengths by the thrashing machinery, as that condition will afford much convenience in the straws being mixed with the solid and urinary feces, and for being covered in the land. The summer straws being thus prepared for litter, the yards erected in the basin-shape to hold moisture, and the animals amply supplied with green meat in an unbroken succession. The making of dung may go on during the summer months, and will produce a most valuable addition in the quantity, and of a quality fully equal to the winter production. It will wholly depend on the provision that is made of green food, which must be unbroken, and ample in the quantity. The preparation and acquisition of manure is fully equal in importance to the cultivation of the land to which it is applied.

CALENDAR OF GARDENING.

KITCHEN GARDEN.

Sow salads, as mustard and cress, twice, with ten or fourteen days intervals; radish in frames, and transplant lettuce to stand on ridges all winter. The seeds may be sown early for winter, and so soon as fit for transplantation ought to be pricked out into a roomy frame, where the plants will prosper and stand the winter: some of the hardiest brown sorts may perhaps endure the frost, but in general the other sorts prevail.

Plant the main stock of cabbages in an open situation, the soil rich with manure, unless it be new loam. All the "Brassicas" prosper amazingly in fresh earth, and indeed far better than in old garden soil.

The plants of spinach raised from seed should be thinned out to regular distances of two or three inches: the plants will then become stocky, and may be thinned again, and the plants so removed may be used for the table.

Thin out and hoe the spaces between the rows of turnips, which should always be sown in drills.

Sow salad again if required.

Mushroom beds are prepared during the month, and is the proper season for those produced naturally, especially if the month be showery. The plants show no reason for being cultivated in the dark, as they are seen to prosper in full day-light.

Continual attention to weeding is now required, for now the garden is liable to be quickly filled with groundsel, chickweed, and other rubbish.

Trench, ridge, and dig spare grounds. Manure and prepare plots for artichokes, asparagus, sea-kale, and rhubarb. Carry off and clean the garden of haulm, and take all to the rotting compost heaps. Dig potatoes; carefully pick out the worthless, the very small tubers, and the least appearance of disease, for though it is said that partial symptoms do not convey the infection yet it may be the safest way to avoid the contact as much as possible.

Exterminate all weeds which will appear in the roots only, as it cannot be supposed that stems have been allowed to bear seeds in any cultivated grounds. Digging and hand-picking of the roots will remove the pests of the garden, which create a constant labour. Each plot of ground is brought into a state of clean order, a neat digging that renders a sober quiet picture during winter, more beautiful perhaps than that of the rampant luxuriance of summer.

The earliest collected manure in the liquid pit will be ready to be used on the beds prepared for stroug roots,

as artichokes, rhubarb, sea-kale, and cabbage plants, which require a strong encouragement both in the soil and in the manure. Much moisture is required in the dung, which should be deeply saturated with liquids, soaked and so far dried as not to lose any moisture by dropping. The collection of materials for manure in the dry compost heap and in the liquid tank must be unremittingly continued during every season of the year.

FRUIT DEPARTMENT.

The first operation may be the final planting of strawberry beds and rows, well-rooted young plants will rarely fail, but the best method is to be provided with young stock raised in pots and now transplanted with entire balls. Pot strawberries for forcing.

Prune, bark to within three or four eyes of the projecting shoots, of apple, pear, plum, and cherry trees so far to aid the swelling of fruitful buds. At the end of the month plant young fruit trees in a well wrought loam that is fresh and rich with dung, or in a turf of soil of a grassy vegetation which retains trees in much health and vigour. Pits in which trees are planted are prepared for one or two years by frequent diggings and mixings with short and rich liquids, so that the tree is richly fed, but the roots meet a strong obstacle in the passage from the loose soil into the firm bank of unmoved ground. It may be better to place the roots among the loamy preparation in a moderate depth to spread horizontally along the upper stratum of the vegetable surface in which the fibrous roots of trees seek their aliment. Mulch the ground freely over the position of the roots. The orchard will be fenced: single trees must be defended by three or four posts in the ground bearing cross-bows at the top, which spread wider to admit the branches having a range of protection. The posts to open outwards at the top for that purpose. The stem of the young tree in two feet above the ground must be defended from the gnawings of hares and rabbits by a fence of a few wires joined together. The tree may be five to seven feet high, clean and smooth in the bark, gently tapering in the stem, with a strong leading shoot and branches regularly spread, of uniform length, root of healthy fibres attached to a strong tap, which must be all shortened when planted and laid in proper horizontal direction. No bundle of roots can be inserted. Gather the crops of pears and apples, and lay in store on a dry floor in a dry place; cover with dry straw, when laid for some time, and remove every appearance of decay from the store.

Place nets in front of any wall fruit trees to catch the falling fruit. Protect grapes and other fruits by muslin or gauze covers, and if wasps abound suspend bottles half filled with treacle-water among the branches, which will destroy a large number.

FLOWER GARDEN.

Finish the clipping of hedges, hawthorn, box-edgings, which may be planted and renewed, and plant slips of herbaceous flowering plants; remove and re-pot any

choice green-house plants and place them in their winter quarters, and transplant pinks raised from pipings.

Weed and roll gravel walks and lawns, when in a damp state; rough dig or fork all the vacant parts of borders; give every portion of ground a neat hoeing and raking to destroy weeds and to bring the surface to that neat appearance which is so reposing during winter. Weeds and rubbish left now will prove a great nuisance, as it will soon be too late to work the ground.

AUTUMN CULTURE.

BY A PRACTICAL FARMER.

The unusual suitability of this forward season for the operations of autumn culture must be our excuse for again touching on the subject. The benefits to be derived from autumn culture are immense, and the virtues and fertility imparted to the soil by the various operations are invaluable. By autumn culture we mean the breaking up the soil immediately after harvest, and subjecting it to the customary processes of cultivation as for a summer fallow. For this purpose of breaking up, the power of steam is of wonderful advantage. It would be of incalculable benefit to the country if all the arable land not under crop, which has been properly drained, could at once be broken up by the steam plough or cultivator within the next month. The destruction of weeds and the seedlings of weeds would be most effective. The absorption of atmospheric influences at this season when the air is greatly charged with the effluvia emitted from decayed and decaying vegetation is of surprising benefit, being deposited by dews and rains. The destroying of insects, grubs, wireworms, slugs, and all such pests by these processes is of itself salvation to many a crop. The dews and rains alone supply the soil under this management with all the constituents necessary for the production of a wheat crop, and the preparation of other soils for early corn seeding or spring root crops is of great, if not essential importance. It also greatly facilitates fallow operations for the ensuing spring and summer. Would that steam cultivation was just now universal! What wondrous benefits it would confer upon all cultivators at this season! and to clay lands and retentive adhesive soils it would be like a new creation. The amelioration of such soils by this deep, powerful, and effective pulverization gives it new powers, which could not otherwise be obtained. The cost of steam engines and the cultivating machinery and apparatus necessary for these works would be amply recouped by the value of their work at this particular season, to say nothing of their value and usefulness at other periods of the year. The steam engine itself would almost be in daily use. We sincerely hope these implements will speedily be accessible to every farmer, to facilitate which little companies should be formed in every district for the purchase and management of these expensive appliances to farm culture, each member having the use of them according to arrangement. Wealthy farmers will do well to supply themselves. In this way steam cultivation may be greatly extended, and the higher branches of culture would thus be generally adopted. To promote this order of culture should now be the object of every intelligent farmer. It is good for the land, it is good for the farmer, it is good for the country. We most decidedly approve of steam cultivation for autumn culture; but as it is not yet in general practice, we should suggest the adoption of that order of culture which most nearly approaches it. For this purpose ploughs should be used with the digging breasts only, as supplied by all our

leading plough-makers, or the strong skeleton ploughs well armed with prongs might suffice. The object being to break up the soil as roughly as possible, in order that the greatest amount of surface, be it clods or otherwise, should be presented or laid open to the sun and air, for the absorption of atmospheric influences, as also to facilitate its further culture by scarifiers, and harrows. Lands that have borne a pea or a bean crop are generally infested with slugs. These operations are certain destruction to them, and if the season is suitable for the wheat seeding, a splendid plant is the result. The autumn preparation for an early spring crop is exceedingly good practice. Beans and peas can be got in very advantageously, but it is still better for the potato or mangold crop. On mild soils very little more is required in the spring but a good harrowing, followed by the plough, either in ridging, or upon the flat, so that the crops may be put in according to the will of the farmer. In the district from whence we write, it is customary to prepare thus for these crops, and few parts of the country can equal them. For clays and stiffer soils it is requisite to lay them up in small lauds or broad ridges, ready to be broken down in the spring, prior to seeding. We will give our suggestions as to the proper course to be pursued in autumn culture. The crops should all be cut as close to the ground as possible. As the fields are cleared, the breeding ewes and ordinary grazing sheep should be put in to pick up the seedling weeds and grassy headland. In a few days a surface harrowing should take place, whereby the seeds of weeds may be encouraged to vegetate, so as to secure their destruction under the cultivating operations. After these preliminaries, and the completion of the harvest (for be it always remembered that the ingathering of the harvest should at all times be of the first importance, all other things giving way to it), all the teams in the absence of steam power, should at once be set to work to break up the soil as deeply and roughly as possible, the rougher the better. When all is thoroughly broken up, let it lie awhile, till other farm operations which may have remained in abeyance are got on with, so that no department of farm work is injuriously neglected. In a week or two from the breaking up, the various operations of culture should be proceeded to, with heavy scarifiers or harrows to move all the broken-up soil, and expose fresh surfaces to atmospheric influences, and all fields not required for seeding may be thus left for an indefinite time, or till they are required for spring service, providing the winter and weather is propitious; but occasionally they get so drenched and consolidated by rains as to require a fresh breaking up, or ploughing in the spring, this the farmer's judgment will decide. All fields required for the wheat seeding, or winter beans, should be left in the rough state till seed time, and then to be reduced to a proper pulverization for the seed bed, by such harrowings and rollings as may be required. If they are reduced too soon the pro-

bilities are that the soil would run too close together to make a good seed bed. We repeat that autumn culture is invaluable, and ought to be universally practised. We say that all objections and hindrances to this order of culture must give way before an advancing agriculture. We most sincerely urge the universal adoption of steam cultivation at this particular season for the first operation of

breaking up the soil. All subsequent workings may be advantageously done by the teams. It is highly desirable thus to promote cleanliness upon the farm, but it is of higher importance to obtain those fertilizing properties which are imbibed by the soil under this system of cultivation.

THE DRY SEASON.

BY THE NORTHERN FARMER.

A succession of dry summers, such as has been experienced, more or less, during the two past and present years, but most severely in 1868 and 1870, has a very marked effect on the business of the agriculturist, seriously affecting his pecuniary interests, and when there is a large number of live stock to be provided for during the winter months there is considerable danger of the loss occasioned being almost irreparable. During the past summer, and even up to the present date, but few districts in these kingdoms have altogether escaped injury, either to hay, pastures, corn, or green crops. The spectacle of cattle and sheep feeding on growing corn during the months of June and July for the purpose of trying to keep the animals alive is one but seldom presented to the people of this country, and yet in some of the southern English counties it was this season unfortunately too common. Such a proceeding showed, not only the straights to which stockowners were reduced to procure food for their animals, but also emphatically proclaimed the miserable condition and prospects of the corn crop. Clearly the fields so occupied were not supposed capable of paying for purchased food for the stock if held on till harvest and gathered in the usual course. The loss of a field of corn is a very trying thing to a tenant-farmer, and affects him more ways than one, as the money he looked forward to receive by the sale of the grain is not only gone, but the straw, so necessary for winter use, and laying the foundation of future fertility in the shape of valuable manure, is also hopelessly gone, the double loss amounting to something considerable. Even now the state of the pastures nearly everywhere is most distressing to look at, the grass, when there is any, being utterly devoid of succulence, and where the fields were bared down in the early part of the season, and the sun had consequently full play on the roots, there is not a vestige of anything in the shape of food, the entire moisture of the soil being apparently exhausted. It will be a good many weeks ere the soaking autumnal rains will be able to bring back a shade of verdure to such fields, powerfully aided as they will by the high rate of temperature imparted to the earth's surface by the lengthened continuance of intense heat. Grasses and clovers spring-sown have done better amongst the corn than when sown without a crop; in the one case benefiting by the shade, and in the other the tender rootlets were unable to cope with the full glare of the sun, and although perhaps not completely killed out, yet being only able to maintain a feeble and struggling existence, there is now but a few dried blades, where, in more congenial seasons, there would be by this time a dense mass of luxuriant vegetation, capable of fattening a sheep of any size, and from six to eight to the statute acre. An instance of this sort has occurred in our own experience this season, and is a very fair illustration that a mode of farming, however good in principle and successful in some years, may yet occasionally be beaten by the very method which it is supposed to supersede. While the fields on which the small seeds were sown simultaneously with the

corn crop show a beautiful covering of verdure, the clover in some instances being half way in the sheaves of corn, about twenty acres laid down without a crop, consisting of grasses, clovers, and rape, cannot admit of the sheep being put on them, being literally burned down; the rape leaves, which should by this time be broad and luxuriant, possessing not the slightest succulence. This is on land after a highly manured green crop the previous season, capable of bearing wheat or any other cereal, so that both corn and straw is lost in this instance, without much prospect of the herbage being so much strengthened as to afford a fair amount of feeding during the current year. Swedes, where they escaped the fly in the earlier stages of their growth, now begin to succumb to the intensity of the drought, large squares withering off, and the leaves where not actually withered yet drooping so much as to make it very dubious whether in the event of dry weather continuing much longer they may ever be able to recover themselves. This crop when so terribly checked by dry weather, is extremely apt to mildew late in autumn, the bulbs, even if they attain a moderate size, keeping badly, being affected by dry rot, and having black or discoloured flesh, a sure indication that the feeding properties of the plant are materially impaired. Mangolds on light land suffer also from such a lengthened drought, though in a less degree than the swede, the bulbs being in general sound, although much smaller in size than they ought to be. The crown seems to be affected first and the leaves proceeding immediately from it—withering off, growth is stopped—and a full crop cannot be calculated on when this casualty becomes at all general on the field. But for the immense labour consequent on watering large breadths of green crop with a horse and water-cart, it should surely be more generally attempted than it is, as the results even from such a primitive method of laying on the water are so successful that they should command both the respect and attention of farmers to a much greater extent than is given by them to the subject at the present day. We happen to know a small farmer who is a highly successful grower of turnips, and for much of his success he is indebted to his energetic use of the water-cart during those seasons which are so dry as to threaten partial or total loss of the crop. Singularly enough his neighbours, probably deterred by the herculean labour, do not imitate him in an example so meritorious, preferring to risk the crop rather than attempt it. Turnips raised solely with artificial manures have a trying ordeal to endure during such a season as the present, not having the advantage or the chance of the slightest particle of moisture from dung or anything present in the soil capable of containing moisture, and on which they might be able to maintain an existence, however struggling. In this case the water-cart would be particularly beneficial, probably saving the crop, or at least greatly increasing its bulk, by a few applications at the most critical time of its growth. The necessity of having recourse to artificial watering during such seasons as that of 1870, not only for one crop but for all—hay, pastures, roots, and corn—

has attracted the attention of thinking men, and already a movement is on foot to devise the best and most economical means of irrigating with pure water, whether the supply is obtained from a river or by storing that which falls from the clouds. This is a highly important matter, and well worthy of serious attention, particularly when such results are obtained from the application of sewage, and the modes of storing and putting the latter on the land being so easily copied or modified, so as to suit peculiar circumstances and situations. It is certainly highly suggestive to find such large sums capable of being made by an acre of grass which has been dressed with sewage. Surely in situations where river water can be easily led to particular fields and laid on to the crop by gravitation, it would be well worth giving it a trial. The fertilizing property being absent, the same results could not of course be expected; but they might easily be supposed to be so great as to pay for all expenses, and leave a respectable profit besides. Ordinary irrigated meadows are a familiar example of what can be accomplished by pure water; the same fields, year after year, giving heavy crops without the aid of any other fertilizer. One could suppose the refreshing influence which would be exercised on a pasture field by the letting on of a stream of water for a few hours, and how gratefully the parched soil would absorb the welcome moisture. A field so treated would be an oasis in any district, its greenness being in pleasing and extraordinary contrast to the brown and withered appearance of the surrounding country. For a regularly-organized system of irrigation, where the water has to be raised to a certain height before it can be used, steam-power, as the most regular, most completely under control, and at all times available, would probably prove most suitable. Where large reservoirs were constructed for storing the water until required for use, windmills, the motive power for which costs nothing, would be both serviceable and economical. The subject is an important one, and we are greatly deceived if this season's experience will not have the effect of bringing it prominently forward; the best means for procuring a cheap supply of water for field crops being agitated and discussed by men of standing and influence in both the agricultural and engineering professions.

Happy is the farmer this year who, having a heavy stock, however short of grass he may be, has still abundance of water on his own land or within easy distance, as more than half his difficulties are overcome when this is the case. Cattle do astonishingly well with plenty of water, even when the grass appears almost incapable of supporting them; and on the other hand if both are short, disease is certain to get in amongst them, and deaths from indigestion and similar causes are almost sure to take place. Dairy stock have dried up prematurely, even where the range was large, the grasses having lost all succulence, and green house-food, even where preparations had been

made for a supply, being very hard to obtain in large quantity. Butter has, in consequence of the small make, risen to an extravagant price, and has every appearance of reaching what may prove a heavy tax on the consumer, without however recouping the producer for the loss sustained by the indifferent yield.

Of all the stock on the farm sheep thrive best in a dry season, particularly if they have the shade of a large fence to retire to, or an occasional clump of trees. This has been a trying season for them, the fly having been extremely troublesome, great assiduity being required to preserve them from injury sustained by its attacks. When fly-struck we find nothing better for healing the excoriated skin after the maggots have been picked off, than a little dust of powdered white lead; it not only dries up the moisture on the wound, and allays the pain, but it also is a thorough preventive of a subsequent lodgment being effected. Those breeds which have not a protecting lock of wool on the forehead, get dreadfully scalded from the constant attacks of these troublesome insects. Applications of tar are not only unsightly, but require constant renewal, a linen cap should therefore be placed on every sheep which has been badly abraded, and all further trouble is at once obviated, and the poor animals relieved from a very large amount of annoyance and even pain. Valuable sheep should on no account be neglected in this particular. Sore breasts have been and still are frequent this dry and hot season, caused by the sheep lying flat and spending much of their time in that position. The parts coming into contact with the ground get stripped of the skin, and a very bad sore is the inevitable consequence. We find it useful to scrape off the mortified matter, and anoint with a mixture composed of equal parts of "oil of tar," "spirits of turpentine" and "butyr of antimony." For all sores on sheep this mixture is very healing, and should be constantly at hand.

To all appearance the approaching winter will be a trying one on many owners of stock, the hay and turnip crops being so indifferent, and recourse must be had, and that extensively, to artificials. Corn is not likely to be dear, and, if not, should form a leading feature in the assisted food of both sheep and cattle. By its use adulteration is escaped, the consumer knowing exactly what he is paying for, which is a very important point, and one not always easily ascertained when manufactured foods are purchased. The extreme dryness of the soil has rendered it almost useless to put in any kind of turnips after corn or other crops, there being not the slightest chance of their doing any good; but grasses sown on scarified stables will come exceedingly handy in the spring for sheep; and pure Italian rye-grass, sown on rich well-cleaned stables, or on potato land, will give a supply of spring food which not only come in early but prove exceedingly valuable.

IRISH BUTTER MARKET.

TO THE EDITOR.

SIR,—As a general rule there has been a difficulty in ascertaining the real value of butter by quotations of prices, arising from the fact that the qualities are so variable; but the difficulty is to a great extent overcome by the system adopted in the Cork Butter Market, of dividing the butter into six qualities or classes, and allowing each quality to bring its own value in price—the very large supply to the market causing the prices of each quality to be strictly ruled by supply and demand. In such a market as Cork—the largest butter market in the world—where such a great quantity of butter has to be sold every day, no other influence but supply and demand can

long rule, and it may be fairly assumed that the prices of Cork butter over a period of years are a safe standard of the values of the respective qualities, the price of first Corks being the legitimate value of the best Irish butter, and that the prices of the other classes represent also the value of butters corresponding to them in quality.

I send you Tables, showing, 1st, The average prices of each quality per month for the past three years; 2nd, The highest and lowest prices of first quality per month for the same period; 3rd, The highest and lowest prices each year for the other qualities,

I have selected a three years' average, as it deals with the present values of goods; while an average running back over a longer period would be likely to mislead, as it would include prices to which there is no probability of our ever returning, and a totally different state of affairs as regards the effect of foreign supply and demand. A careful study of those tables will give a good idea of the general course of prices, but in purchasing Irish butter, to be able to operate to advantage, the buyer should have an intimate knowledge and experience of, and should constantly and carefully study all the influences that may affect it in price and quality. Those influences are numerous, extremely varied, and subject to constant change.

The price is affected by many causes, among which are home supply, foreign supply, home and foreign consumption, by the demand, by the prices of butter in different markets, by the relative prices of other provisions, by the weather, by stocks in hands of both consumers and speculators in various places, and by many local and temporary causes, such as haymaking, harvesting, holidays, rent-days, &c., which have the effect of either sending in or keeping back butter from market.

The quality, either as regards its keeping properties or otherwise, is affected by the weather, by the condition of the milk, the description of cattle, by the pasture, by the size, airiness, and convenience of the dairies, and very much by the sort of fuel used in the district: where peat or turf is burned the butter generally taking a flavour from it.

Butter intended for keeping should be thoroughly freed from the milk in making, the cream being in good condition, and not injured by heat, and the butter should be made close in grain, firm, and not too rich. Such butter does not require the great quantity of salt that is necessary in butter not possessing those keeping properties. Sound judgment on this point is rare, and can only be acquired by experience. When buying butter for keeping, care should be taken that it has not been already held for a long time, particularly during the hot summer months.

I am yours truly,

T. J. CLANCY,

Watercourse, Cork.

Butter Merchant.

TABLE showing the Average Price per Month for Three Years, for each quality of Cork Butter.

	1867.						1868.						1869.					
	1st.	2nd.	3rd.	4th.	5th.	6th.	1st.	2nd.	3rd.	4th.	5th.	6th.	1st.	2nd.	3rd.	4th.	5th.	6th.
January	120	112	92	72	60	50	115	109	90	76	52	40	145	143	128	117	107	97
February	120	113	89	70	58	48	120	117	105	90	63	44	144	144	123	107	99	99
March	120	116	96	68	50	40	121	119	112	99	74	46	138	138	112	90	81	61
April	122	120	98	64	50	40	128	127	119	110	94	55	130	126	94	84	60	50
May	108	101	86	75	49	39	106	103	94	90	86	60	105	101	90	81	64	52
June	100	97	86	73	55	45	102	100	93	89	75	59	103	100	93	86	70	57
July	99	95	83	75	58	46	109	105	98	86	81	65	104	101	94	89	79	60
August	97	91	79	74	60	39	121	115	110	106	96	76	111	104	98	92	84	68
September	102	92	82	76	63	49	127	121	115	112	100	80	119	110	101	98	87	71
October	106	96	85	80	70	54	130	126	120	117	106	103	125	116	107	102	94	77
November	105	94	83	79	70	54	131	127	121	119	116	99	128	121	113	109	97	82
December	107	94	80	74	68	54	136	133	122	116	106	98	131	119	107	101	96	83

TABLE showing the Lowest and Highest Prices of First Quality Cork Butter each Month, and the Lowest and Highest Prices of the other qualities each Year, for Three Years.

1867.—FIRSTS.			1868.—FIRSTS.			1869.—FIRSTS.			
Lowest.		Highest.	Lowest.		Highest.	Lowest.		Highest.	
Jan. 12	118s.	Jan. 3	123s.	Jan. 1	143s.	Jan. 1	143s.	Jan. 1	148s.
Feb. 2	118s.	Feb. 11	120s.	Feb. 20	140s.	Feb. 19	148s.	Feb. 19	148s.
Mar. 1	120s.	Mar. 30	120s.	Mar. 25	135s.	Mar. 25	135s.	Mar. 25	140s.
April 1	120s.	April 30	127s.	April 26	116s.	April 12	140s.	April 12	140s.
May 20	98s.	May 1	126s.	May 11	100s.	May 3	128s.	May 3	128s.
June 6	98s.	June 4	104s.	June 2	102s.	June 4	102s.	June 4	102s.
July 17	97s.	July 6	100s.	July 29	102s.	July 5	108s.	July 5	108s.
Aug. 12	98s.	Aug. 5	99s.	Aug. 5	103s.	Aug. 29	116s.	Aug. 29	116s.
Sept. 4	100s.	Sept. 21	109s.	Sept. 1	112s.	Sept. 21	129s.	Sept. 21	129s.
Oct. 20	103s.	Oct. 7	110s.	Oct. 1	123s.	Oct. 30	131s.	Oct. 30	131s.
Nov. 1	103s.	Nov. 30	106s.	Nov. 9	125s.	Nov. 8	130s.	Nov. 8	130s.
Dec. 1	103s.	Dec. 30	110s.	Dec. 2	125s.	Dec. 21	135s.	Dec. 21	135s.
June 3	88s.	April 23	127s.	May 12	96s.	Jan. 30	145s.		
Sept. 10	77s.	April 22	113s.	May 13	87s.	Jan. 9	131s.		
Mar. 1	61s.	Oct. 18	83s.	April 29	72s.	Jan. 8	121s.		
Jan. 21	47s.	Oct. 7	70s.	April 24	60s.	Jan. 11	109s.		
July 8	36s.	Oct. 7	51s.	April 5	50s.	Jan. 5	97s.		

SHEEP SALES AND LETTINGS.

SALE OF OXFORDSHIRE SHEARLING RAMS.—At the annual sale of rams, bred by Mr. John Treadwell, of the Model Farm, Upper Winchendon, the auctioneer was Mr. J. A. Mumford, of Chilton, Thame. The following are the purchasers and prices realized: Mr. Foster, 12½ gs.; Mr. Palmer (Slenkey), 11 gs.; Mr. Parrott (Shisburn), 6 gs.; Mr. Salmon, 7½ gs.; Mr. Foster, 11½ gs.; Mr. Phillips, 5½ gs.; Mr. Bulford, 9½ gs.; Mr. Bliss, 10 gs.; Mr. Greaves, 11 gs.; Mr. W. Stevens, 5½ gs.; Mr. Syral, 9½ gs.; Mr. Dover, 9 gs.; Mr. Bliss, 7½ gs.; Mr. W. Stevens, 8 gs.; Mr. Linnell, 10½ gs.; Mr. Saunders, 11½ gs.; Mr. Higgins, 11 gs.; Mr. Bliss, 8 gs.; Mr. Cooling, 8½ gs.; Mr. Parrott, 9 gs.; Mr. Ginger, 9 gs.; Mr. Watson, 6 gs.; Mr. E. Freeman, 10 gs.; Mr. Bulford, 6½ gs.; Mr. Dover, 7 gs.; Mr. Rowland, 10 gs.; Mr. Bryant, 13 gs.; Mr. Rand, 6 gs.; Mr. Bulford, 6½ gs.; Mr. Ginger, 6½ gs.; Mr. Rose, 7 gs.; Mr. Bliss, 6 gs.; Mr. Gregory, 8½ gs.; Mr. Williams, 8½ gs.; Mr. Parrott, 5½ gs.; Mr. Rund, 5½ gs.; Mr. King, 10 gs.; Mr. Bliss, 6½ gs.; Mr. Jones, 9 gs.; Mr. J. Cox, 6 gs.; Mr. Rowland, 11 gs.; Mr. G. Clarke, 8 gs.; Mr. Ginger, 7 gs.; Mr. Guy, 6½ gs.; Mr. Brett, 8½ gs.; Mr. E. Clarke, 6 gs.; Mr. Boddington, 6 gs.; Mr. Timbertuke, 8 gs.; Mr. Syrett, 7 gs.; Mr. Holt, 7 gs.; Mr. May, 8 gs.; Mr. Higgins, 7½ gs.; Mr. Tompkins, 3 gs.; Mr. King, 5½ gs.; Mr. J. Osborne, 6½ gs.; Mr. J. Perkins, 8 gs. The sale realized £470. The average was considerably below that of last year. During the day Mr

Treadwell stated that he intended to challenge the decision of the Judges at the Royal Show at Oxford with respect to the disqualification of his sheep, as he had two witnesses to prove that his sheep were shorn in the first and second weeks in April.

THE SCORBOROUGH RAMS.—The annual letting of Mr. James Hall's Leicester rams took place at Scarborough, near Beverley. The sheep were in good condition, and there was a large bidding and a successful letting. Of 105 sheep only 13 did not find customers by public sale. One shearing reached £25 to Mr. J. S. Jordan, fifty-five shearlings brought an average of £9 1s., and thirty-seven old sheep averaged £6 9s. The general average was £8 7s. 6d.

THE WEST DEREHAM (MR. HUGH AYLMEYER'S) SHEEP LETTING.—The animals brought to the hammer consisted of 100 ram lambs, 80 shearling, and ten two-shear rams, and the prices realised were for ram lambs from £1 5s. to £8 15s., the average being £5 4s. 4d.; the shearlings from £6 5s. to £17 10s., the average £8 5s. 9d.; the two-shears from £6 5s. to £11, the average £7 10.

THE MARHAM HALL RAM LETTING.—The annual letting of Cotswold rams and ram lambs took place on Mr. T. Brown's farm at Marham Norfolk. The animals submitted to competition comprised 80 ram lambs, 80 shear-ling and 10 two-shear Cotswold rams, all of which had been bred by Mr. Brown. The 80 ram lambs averaged £6 0s. 10d. Of the shearing rams, the first 10 averaged £10 16s. 3d.; the first 20, £11 9s. 3d.; the first 30, £10 11s. 6d.; the first 40, £10 15s. 4d.; first 50, £10 6s. 3d.; first 60, £10 4s. 6d.; first 70, £9 19s. 6d.; the 80, £9 13s. The 10 two-shear rams averaged £5 19s. 5d.; one of the sheep shown at Harleston lot for £31 10s., and other good sheep for the same amount, Mr. Brown reserving his Oxford prize sheep for his own use.

THE COTSWOLD ANNUAL RAM SALES.—These annual sales commenced by Messrs. Lync and Acock submitting at Broadfield Farm, for Mr. Lane, five prime Cotswold sheep for letting, and selling 47 other shearlings. There was a vigorous competition for No. 1, and the hammer ultimately fell to Mr. Swanwick, of Cirencester College, when 80 guineas had been reached, the highest price realised in the sale. Several others made high figures, and the result showed an average of £14 11s. 8d. The same auctioneers offered four sheep for letting, and sold 47, drafted from the flock of Mr. R. Garne, of Aldsworth. Nos. 7 and 9 excited spirited biddings, and they were ultimately knocked down at 50 gs. each. The 51 sheep averaged £16 4s. They also sold for Mr. Walker, of Northleach, 38 prime shearing Cotswold rams. Mr. Barton, of Cln St. Denis, purchased the highest-priced animal for 36 guineas. The average was good, being £12 8s.

SALES AT CIRENCESTER FAIR.—Mr. Clarke, of Frampton Mansell, showed 10 shearlings, which were sold at an average of 6½ gs. each. Mr. Charles Barton showed 12 shearlings, eight of which were disposed of at 8 gs. each, the highest price obtained being 15 gs.

MR. COXON'S ANNUAL SALE.—The fourteenth annual sale of Shropshire rams and ewes took place at Freeford. The sale was entrusted, as usual, to Mr. W. G. Preece. The shearing ram Cap-tivator, the winner of the first prize at the late national show at Oxford, after a spirited bidding, was secured by Mr. W. German for the season for 35 gs. Commander was purchased by Mr. F. Byrd for 35 gs., the Breeder's Friend by Mr. Harding for 19 gs., and Chancitor by Mr. German for 42 gs. The ram which seemed to be the prime of the lot, and which realised the longest figure was Coereion, secured by Mr. Clare for 52 gs. The first department of the sale, viz., 29 rams, realised £195 15s., an average of about £17 1s. each. The next lots were six noted rams, the principal, Preserver, being bought by Mr. Masfen for 24 gs., and Baron Pendeford by Mr. Webb for 18 gs. This lot realised £85 4s., an average of £14 14s. each. There were ten pens of five ewes each, which realised £135 7s. 6d., an average of £3 1s. 4d. each.

MR. E. WATERS' SALE OF RAMS, RAM LAMBS, AND EWES was held by Mr. Waters, of Salisbury, and 100 ram lambs, 13 shearing rams, and 216 ewes were sold. The two former classes went off very well, but the ewes sold badly. Among the highest prices given we may mention the following: Mr. Mayo, 15 gs.; Mr. Rawlence, 44 gs.; Mr. Kent, 14½ gs.; Mr. Lyne, 25 gs.; Mr. Compton, 25 gs.; Mr. Russell 15½ gs.; Mr. Hoddinolt, 14½ gs.; Mr. Symes, 13½ gs.; Mr. C. Long, 15½ gs.; Mr. Noteley, 16 gs.; Mr.

Kellow, for Mr. A. Morrison, 39 gs. After this prices gradually lowered to 4 gs., and the average over 100 lambs disposed of was £9 18s. 6d. For shearlings prices ranged from 4 gs. up to 21 gs.; Mr. Hoddinolt gave 20 gs., and Mr. Moore gave 30 gs. The average for the older sheep was £15 3s. 8d.

The sale of the second portion of the late Mr. E. Waters' improved Hampshire Downs at Stratford-sub-Castle, on Wednesday last, drew a large attendance of the principal sheep breeders and agriculturists of the surrounding and more distant counties. The auctioneer was Mr. John Waters, of Salisbury. For a pen of ten six-tooth ewes, the extraordinary price of £7 per head was obtained, Mr. Brine (Dorset) being the purchaser. The average for this age was £3 6s. per head. For an equally fine pen of four-tooth ewes, Mr. Parker, of Lasham, Hants, paid £5 10s. per head—the average of the four-teeth being £2 17s. 9d. The same gentleman (Mr. Parker) gave £5 10s. per head for the best pen of two-teeth ewes, and this age averaged £2 13s. 8d. For chilver lambs, 50s., was the price paid for the best pens, the average being £1 16s. 2d. The ram lambs, which were younger than those sold on the first occasion, ranged from £3 to £9 9s., averaging £4 14s. per head.

THE OXFORD SALE OF SIORTHORNS.—Lady Knightly 2nd goes not to Australia, but to Messrs. Wolcott and Campbell, New York Mills, Oneida Co., United States, who also purchased Patricia, through the same agent, Mr. R. Gibson.

MR. COTHER'S RAM SALE.—Mr. Cother's thirty-ninth ram sale took place at Middle Aston, and there was a fair attendance of farmers, breeders, and others. There were 46 lots sold, and the highest price realised was 15 gs., the second 14 gs., and the third £12 1s. 6d.; the average was £7 12s. 3d., and the total amount of the sale £359 3s. 6d. Mr. Savage, of Sarsden, bought five of the best sheep for Canada.

THE MARKSHALL FLOCK.—The annual letting of Mr. T. Allen's long-wooled rams took place on his farm at Markshall. The following was the result: The 21 ram lambs averaged £3 16s., and the 34 shearing rams £6 17s. 6d.

MR. NICHOLSON'S HAMPSHIRE DOWNS AND MR. SEXTON'S COTSWOLDS.—At Ipswich, Mr. Sparling sold for Mr. Nicholson, who had been a very successful breeder and exhibitor of this class of sheep. The first two Hampshire ram lambs fetched £2 15s. each, three others £4, £3, and £3 respectively. The first half-bred ram lamb realised £2 10s., another £1 12s. 6d., and a third £2 12s. 6d. A Hampshire shearing ram was sold at £3, a Lincoln shearing ram £9 5s., and a half-bred £3 5s. After the sale of Mr. Nicholson's sheep, about 20 Cotswold shearing tups, the property of Mr. G. M. Sexton, Wherstead Hall, were offered for sale. Five of the tups fetched £4 each, three £4 5s. each, one £4 10s., another £5, and a third £7. The others averaged about £3 15s.

At Bingley Hall, nearly 200 Shropshire rams and 300 ewes were pitched; but the attendance was much smaller than usual. Mr. E. Lythall's lot made from 5½ to 10 guineas; about half being passed. Mr. Yates's from 5½ to 12 gs.; half sold. Mr. Noek's 6 to 20 gs.; all sold, and averaging about 11 gs. Lord Willoughby de Broke's, Lord Sudeley's, Mr. R. Wyatt's, and other lots were withdrawn. One only of Mr. Sheldon's was sold, at 30 gs., to Mr. D. R. Davies. Three of Mr. May's went at from 5½ to 10 guineas, one being let; and one of Mr. Pitgrim's at 15 guineas. The interest of the day, however, centred in Mrs. Beach's lot, which included three Royal winners. The third prize two shear was first offered, and let for the season to Messrs. Webb and Sons, Seed Farms, Kinvor Hill, at 63 guineas. Then followed the second prize, which made 35 gs. for the season, to Captain Oliver. Mr. May secured the third prize-shearing at £3 guineas; the others bringing the average down to £28 13s. The prices and the public voice both confirmed the opinion that the respective positions of the two aged prize sheep at Oxford should have been reversed; as, in fact, the third prize has previously let higher than the second. The ewes sold far better than was anticipated. Mr. Yates's made 42s. to 44s.; Mr. Pilgrim's 40s. to 110s., the highest price of the day, given by Mr. Firmstone; Mr. Noek's 53s. to 58s.; Mr. Lot's 40s. to 50s.; Mr. E. Lythall's 45s. to 53s.; Mr. Owen's 45s. to 50s.; Mr. Shuttleworth's 46s. to 47s.; Mrs. Beach's 53s. to 59s.; Mr. Tongue's 45s. to 49s.; Mr. Tollfree's 42s. to 50s.; Mr. Chilwell's 36s. to 40s.; and Mr. Hughes's 45s.

Mr. Willoughby Wood's sale was held at Holly Bank, when 35 rams were offered, and all sold at prices ranging from 5½ to 25 guineas—the average being £8 2s. 6d. The ewes made from 40s. to 55s.—average, 48s. Messrs. Lythall, and Clarke, of Birmingham, conducted the last two sales.

Mr. James Rawlence's ram sale under Messrs. Ewer and Winstanley took place at Bulbridge. For a ram lamb there was a spirited competition, and it was knocked down to Mr. Kellow, for Mr. Morrison, of Fonthill, at 60 guineas for the season. For a ram lamb of similar class, there was also great competition, Mr. Kellow being again the higer at 40 guineas. Lot 33 to Mr. R. K. Melsome, 23 guineas; lot 45, Mr. Rose, 21 guineas; lot 23, Mr. Buckman, 15 guineas; lot 51, Mr. C. Notley, Codford, £18 2s. 6d. The others sold at prices from 13 to 8 guineas. The pairs realised sums varying from 19 to 7 guineas. The two-teeth rams let at from 10 to 6 guineas; and sold from 11 to 8 guineas. Mr. Arnold hired a four-teeth ram at £13 2s. 6d., and the remainder in that class sold and let at from 10 to 5 guineas. A six-teeth ram was let to Mr. Bennett for £12 1s. 6d., and a six-teeth ram was sold to Mr. R. Brine for 13 guineas. The average for ram lambs let and sold was £11 3s. 6d. each, and the average throughout the sale was £10 12s. per head.

OXFORD RAM FAIR.—At this fair, Messrs. Franklin and Gale offered 70 very capital ram lambs, from the flock of H. Gale of Cuddesdon, many of which failed to find purchasers. Those sold, however, realised satisfactory prices, varying from £16 5s. 6d. to £3 13s. 6d., making the very fair average of £6 10s. The same auctioneers then proceeded to dispose of 60 ram lambs and a few older sheep, bred by W. Chillingworth, of Cuddesdon. The whole were sold at an average of £6 12s., the highest price being £14 3s. 6d., the lowest £3 13s. 6d. This average was not so high as last year's (£10 5s.). They afterwards submitted for sale by auction 15 ram lambs, the property of J. N. Gale, of Chilworth, which were all sold except one, at an average of £3 10s.

ZEALS RAM SALE.—The annual sale of rams and ram lambs, bred by Mr. C. Rose, took place in a field adjoining his farm buildings. The prices realised were from 15½ gs. downward, many being sold at 11, 10, and 9 gs., &c., down to 5 gs.

BABINGLEY RAM SALE.—The annual sale of long-woolled shearing rams, the property of Mr. Charles Bradfield, was held on Wednesday last. Mr. Long, the auctioneer, disposed of the animals with the following results: First ten rams £52 5s., second £72, third £61 5s., fourth £54, fifth £50, sixth £47, seventh £48 15s., and eighth £44 15s., the average being £5 7s. 6d.

MR. DIBBEN'S RAM AND RAM LAMB SALE.—On Tuesday last the annual sale and letting of ram lambs and rams belonging to Mr. Dibben, of Bishopstone, was held at Fisherton, the auctioneers being Messrs. Ewer and Winstanley. There were four ram lambs to be let, and eighty-three to be sold. Those to be let realised 6½ gs., 13½, 6½, and 8 gs. respectively. Amongst the purchasers were Mr. E. Pinckney, 9½ gs., Mr. Cheney 9 gs., Mr. James Rawlence 9 gs., Mr. Carpenter 13½ gs., and 15 gs. for a two-teeth, Mr. Symes 12½ gs., Mr. Andrews 10½ gs., Mr. Jenner 10 gs., Mr. Whitmarsh 10 gs. The whole lot realised an average of £8 5s. 6d.

THE RAM SALES AT HEREFORD FARM.—Messrs. Russell and Son offered twenty-five rams from Mr. Downing's, Hohn Laey, and for these the lowest figure was 5 gs., and the highest £8 5s. Thirty store sheep belonging to Mr. Downing were also put up by the same auctioneers, and sold at an average of £2. The following lots were also put up: 10 rams from Mr. Taylor's, Showle Court, prices from £6 to £8 10s.; 15 Oxfordshire down rams, belonging to Mr. Bryan, Southleigh, prices from 5 gs. to 6½ gs.; 4 rams from Stretton Court (Mr. Yeomans), price 5½ gs. They also sold a quantity of Oxfordshire Down rams, belonging to Mr. Gillett, the prices being 6 gs., 6½ gs., and 7 gs.

SALE OF RAMS AT RUDSTON HOUSE.—On Wednesday a large number of the principal breeders of sheep in the district assembled, when upwards of seventy pure-bred Leicester rams were submitted to competition by Messrs. Allison and Wentworth. The highest shearing was taken by Mr. J. H. Medforth, of Gransmoor, for £30; the next in price was £20, taken by Mr. J. Staveley, of Dotterill Park; another, by Mr. J. H. Medforth, £16 10s.; next, by Mr. Simpson Staveley, of Tibthorpe, at £16 5s. The average of one-shearings was £10 5s. Out of 32 shearings offered, 22 were

taken. Of the two-year shearings eight were at an average of 8 gs.; and of the three-shear four were let at an average of £8 10s.; of four-shear three were let, averaging £8 17s., the highest of which Mr. Jordan, of Emswell, took at £14. Thirty-three were let for £34 14s., being a shade under £10 9s. each, in the lot.

SHEEP SALES AT MELTON FAIR.—Messrs. Spurling's sale: Mr. Lewin's first seven score of black-faced wether lambs averaged about 45s. 3d. each, and the ewe lambs 18s. and 15s. Mr. Waller's wether lambs about 20s. 6d.; the cronies about 22s. 3d.; two shearing tups fetched 42s. each, one 45s., one 44s., and another 52s. Mr. H. Orford's fat sheep fetched 36s. 6d., and the cronies 27s. 6d.; his tups averaged about 45s. Mr. Smith's wether lambs 15s. 6d., and the ewes 20s. Mr. Bond had 1,760 lambs and sheep for sale. The principal consignors of lambs were the executors of Mr. Thomas Crisp, of Gedgrave Hall, and Mr. A. Crisp, of Chillesford; their wether lambs averaged about 14s. 6d. the best, and inferior about 12s.; some half-bred lambs of better quality averaged 17s. 3d., as did the down cronies; the black-faced shearing ewes averaged 45s.; one lot sold for 42s. Mr. W. Toller's (Gedgrave) lambs averaged 20s. 6d. Lord Rendlesham's black-faced ewe lambs 23s., and the ram lambs 21s. each; 14 ewes sold for 34s. Mr. Crisp's (Chillesford) fat sheep averaged about 39s. Mr. Ling's (Otley) half-bred lambs, one score sold for 15s., others for less.

SHROPSHIRE SHEEP AT PATSHULL.—This annual sale of Shropshire sheep, the property of the Right Hon. the Earl of Dartmouth, took place on Monday last, and was attended by a greater number of gentlemen than on any previous occasion. Thirty-four rams were offered, of which 30 were disposed of at prices varying 5½ to 13 guineas. Store ewes realised 51s., and yearlings 45s. Messrs. Nock, Son, and Wilson, of Bridgnorth, were the auctioneers.

SALE OF LORD CHESHAM'S SHROPSHIRE RAMS.—The second annual sale of pure-bred Shropshire shearing rams belonging to the now noted Latimer flock took place on the 17th inst. The sheep offered were, if anything, superior to those sold last year, and presented all the best characteristics of the breed—size, quality, and wool. Two rams were let for the season—one, the highly commended at the Royal show, being secured by Mr. Bradshaw at 21 guineas; the other was taken by Mr. E. Smith at 11 guineas. Twenty-one shearings were sold, the prices given ranging from 5 to 15 guineas. The average was £7 3s. Afterwards 125 stock ewes, which were in fair condition, considering the season, were sold at an average of nearly £3 per head, which was considered a very satisfactory price.

SALE OF HAMPSHIRE DOWN SHEEP.—On Thursday a sale of sheep was held at Bradwell, near Stony Stratford, Buckinghamshire, the residence of Mr. W. G. Duncan. This was the first sale of the kind in the neighbourhood, and was also the result of an experiment by Mr. Duncan to introduce the Hampshire breed in the district. He is an admirer of this breed, and his land has proved suitable to the breed, as shown by the splendid animals offered for sale. The land on this part of Bucks is naturally of a cold description, and Hampshire sheep seem more adapted for it than long-woolled sheep, which are principally used. The sale was quite a success, and Mr. Duncan's first appearance as a sheep breeder will certainly not be his only sale. Mr. J. F. Goodwin, of Newport Pagnal, was the auctioneer. A quantity of theaves made from £2 12s. to £2 16s. per head, and ewes fetched from 44s. to 50s. Wether lambs made from 30s. 6d. to 34s. The ram lambs sold at prices varying £2 12s. 6d. to £13 5s. A two-shear ram, bought at the late Mr. Humfrey's sale, of Oak Ash, made £13 15s.

THE GREAT GIVENDALE RAM LETTINGS.—The best shearing was let to Mr. Jordan, of Emswell, for £20. The two-shear sheep commanded a still better competition, and double figures were the rule. The second best shearing of last year (£35 10s.), after a strong contest with Mr. Fojambe's agent, was secured by Mr. Mede, an Irish breeder of Ballynarth, Ballinassig, county of Cork, for £33 10s. Among some of the leading breeders who were takers were Mr. Wright, of Oglethorpe-hall; Mr. Staveley, of Hayton; Mr. Phillips, of Beadlam-grange; Mr. Brown, Holme on Spalding Moor; Mr. Stamper, Highfield-house, Nunington, and several others.

SALE OF ALDERNEYS.—Mr. Richardson submitted to public competition, a valuable herd of Alderney and Guernsey

cows and heifers, the property of Mr. P. H. Fowler, of the Clarendon Repository, Watford, Hertfordshire, importer for the Royal dairies at Windsor and Osborne. The highest price realised was 26 guineas, while the general average was about 21 guineas.

Messrs. Mann and Raven disposed of a number of Lincoln shearing rams, bred by Mr. T. Gannell, of Milton. The sale took place on the bowling-green of the Lion Hotel, Cambridge. The prices realised were very good, ranging from £40 downwards. The prices obtained averaged more than £11.

A sale of ewes and lambs took place at Shrewsbury by Mr. W. G. Preece. It opened shortly after ten, when some shearings belonging to Mr. John Jones, of Agden, Whitechurch, were put up. The first, by Duke of Cambridge, was sold for 9 guineas, and two others at 7 and 6 guineas. Mr. Edwards, of Oxon, had eight rams entered, one of which sold for 10 guineas, another at 9s, and others at lower prices. Mr. Tanner, Frodesley, Salop, had fifteen. A two-shear ram sold for 11 guineas, and another at 9. Mr. Bowen Jones, Emsdon House, obtained 8 guineas for a three-shear ram. Messrs. Crane, Shrawardine and Forton, offered twenty-eight for sale and four for letting. Caractacus, a ram by Chieftain, was let for 53 guineas, and another ram let for 21 guineas. The rams for sale realised 20, 17, 15, 14 guineas, and lower prices. A ram, the property of the Rev. C. P. Peters, Pitchford Rectory, realised 32 guineas. Mr. John Evans, of Ullington, had only one or two under fifty entered. The first put up, a three-shear ram, Standard Bearer, was let to the Earl of Strathmore for 60 guineas, which was the highest price realised. Premium let for 16 guineas, Favourite for 24, Scottish Hero 48, Downton Pippin 14, another for 21. The average of the rams sold was 12 guineas, and the average of the ewes £3 10s. Mr. Thornton, Pitchford, offered a dozen rams. One ram let for 10 guineas. The highest selling price was 30 guineas, which was obtained for a two-shear ram. Mr. Thomas Horton, Harnage Grange, let two, one at 9 guineas, and sold several, the highest price being 13 guineas. Mr. Mansell, Ercall Park, sold ten rams at an average price of nearly 9 guineas. The Hon. E. Kenyon, Maesfen, let three rams, one at 12, one at 10, and one at 9 guineas. The best selling price was 11 guineas. Messrs. Fenn and Harding let Macgregor for 15 guineas. The highest selling price was 13 guineas. Mr. G. Allen, Eccleshall, let a ram for 40 guineas, one at 35 guineas, and others at lower figures. One fine ram, with remarkably good wool, was bought by James Iland, of Ludlow, for 41 guineas. On Wednesday an unusually large quantity of ewes were offered, all of them being of the purest breed, and there being a capital attendance of buyers, prices were much better than on the day previous. The Messrs. Crane had twelve lots, all of which were disposed of. A pen of five was sold for £5 10s. each, others at 8s., 6s., 6s., 6s., 6s., and lower prices, the smallest price realised being 49s. per head. Mr. Evans, Ullington, had thirteen lots of five each, and they sold at 90s., 80s., 75s. 7s., down to 48s. each. Messrs. Bowen and Jones, Emsdon, had fifty ewes, and all were bought up. One lot sold at 6s. per head, another 60s., and at other lower prices, down to 46s. Mr. Evan Bowen, Bicton House, had fifteen pens of five each. The best price obtained was 61s., and the average about 50s. Three pens belonging to the Earl of Powis were sold at an average price per head of 46s. The Rev. G. P. Peters had only one pen, but it contained some well-bred animals, which were readily disposed of at 72s. each. For one pen the Messrs. Fowler, Acton Reynald, obtained 61s. per head, for another 56s., while others were disposed of at figures somewhat lower. Mr. J. Minton, Forton, obtained an average price of 56s.; Messrs. Fenn and Harding, of 54s.; and Mr. Barber, Harlescott, 72s., one lot being sold at 56s. Mr. Horton had eight pens, and some of them obtained the best prices of the day. Four superb shearing prize ewes sold at £10 10s. each, another four at £9 15s., and a third lot at the same price. All were bought for transportation to San Francisco. For one lot of five Mr. Tanner, Frodesley, got 76s. Mr. Meredith, Frodesley, had eight pens of five. The prices varied between 38s. and 42s. Mr. Perry, Acton Pigott, disposed of thirty ewes at an average price of 46s. Mr. Bach had fifty ewes, which realised an average price of 43s. Mr. Lewis, Baschurch, had forty ewes, which sold for an average of nearly 43s. each.

Mr. Rigen's annual sale of Southdown ewes and letting and sale of rams, took place at Hove, Brighton, on Friday.

At the lunch the Chairman (Mr. Turner) gave "The health of Mr. Rigen, and success to the sale." The sheep brought before them to-day might be in lower condition than usual, but that was easily accounted for by the shortness of keep they had been suffering from in this part of the country. They had felt the effects of both a cold spring and a very dry summer, and in fact the weather had been against them ever since the beginning of last March. Mr. Rigen, like most flock-masters, had not been able to withstand the effects of the severity, and consequently the sheep were not in so high condition as they would otherwise have been. But it must be remembered there was the blood all the same. Mr. Rigen said it was perfectly true, as Mr. Turner had said, that they had incredible difficulties to contend against during the past six months, and as an instance he might mention that he had sown more than a hundred acres with rape and turnips, and not a single acre had yet made any show. No one would hardly believe that sheep could have lived on what he had had to give them during the last two or three months; he had, however, been fortunate in having water, and that was the only thing that had saved him. The sheep to-day would all be submitted with a low reserve, and he must do the best he could under the circumstances. Mr. Drawbridge, the Sussex auctioneer, then submitted the lots to competition. Ewes: Five full-mouthed ewes, £4, The Prince of Wales: five, £4 10s., The Duke of Richmond; five, £3, Mr. Woods, Leatherhead: five, £3 5s., Mr. Woods; five, £3 5s., E. Stenning, Godstone; five, £3, Carew Gibson; five, £2 15s., E. Cane, Berwick; five, £2 10s., J. S. Turner, Chynton; five, £2 10s., E. Stenning; five, £2 10s., Mr. Gillespie, Bolney; five, £2 10s., C. Gibson; five, £2 5s., C. Gibson; five, £2 7s. 6d., J. Hodson, Blatchington; five shearing ewes, £2 15s., Mr. Case, Street Place; five, £2 10s., Mr. Case; five, £2 15s., The Prince of Wales; five, £2 15s., Mr. Northall Lowne. Rams for letting: Four years old, by Young Elegance, 15 guineas, Colonel Tomline, M.P., Ipswich; two years old, by Grandson of Archbishop, 27 guineas, Colonel Tomline; one year old, by No. 40, highly commended at Taunton and Oxford, 15 guineas, Mr. Heasman, Angering; one year old, by No. 40, commended at Taunton, 15 guineas, Mr. Wadehouse, Hertford; one year old, by No. 40, commended at Taunton, 15 guineas, C. Gibson; one year old, by No. 40, 15 guineas, Lord Norbury; one year old, by Son of Plenipo, 10 guineas, Mr. Drummond, Southampton; one year old, by Son of Plenipo, 12 guineas, Lord Norbury; one year old, by Son of Plenipo, 20 guineas, Mr. Gillespie, Bolney. Rams for sale: Three years old, by a son of Reserve, 10 guineas, Mr. Stevens, North Devon; two years old, by a son of Plenipo, 10 gs., Mr. Gibson; one year old, by a ram of Mr. Boys, 10 guineas, Mr. Hodson, Plymouth, one year old, by Young Plenipo, dam a Beddingham ewe, 11 guineas, Mr. Milward, Notts; one year old, by No. 40, dam a Goodwood ewe; 12½ guineas, Mr. Hodson, Blatchington; one year old, by No. 40, 12 guineas, Northall Laurie; one year old, 13½ guineas, Lady Shelley; one year old, dam a Webb ewe, 10 guineas, S. Beard, Rottingdean. Archbishop won the first prize at Canterbury, and was sold by Mr. Webb for 250 guineas; Young Elegance was sold at Mr. Webb's last sale for 140 guineas; No. 40 is the son of Reserve, highly commended at Leicester.

The sale of the Attleborough sheep took place on Thursday, when was offered the entire flock consisting of 42 shearing rams, 75 tup lambs, 75 ewe lambs, 25 shearing ewes, and 150 flock ewes. The average results of the sale are as follows:

	Average.	Total.
41 shearing rams	£6 16 0	£279 0
65 ram lambs.....	4 0 0	258 10
177 ewes	2 16 9	502 18
75 ewe lambs.....	1 18 0	142 0

Total.....£1,182 8

At the luncheon, Mr. C. S. READ, M.P., who presided, said, I remarked just now that we were very blessed in living in an island. There is one thing about the island, however, that we seem to have forgotten, and that is that for many centuries it kept away from us not only the arms of the invader, but also the plagues and pestilences among stock which have for centuries devastated the continent of Europe. We seem now to have forgotten this fact, and, having these diseases located

amongst us, we have Acts of Parliament and Orders in Council for the purpose of stamping them out, but I am sorry to say that we still take no sufficient precaution against their introduction. Why, we passed a measure no less than thirteen months ago for the erection of a separate market in the metropolis for the sale and slaughter of foreign stock, and you will hardly believe that although the Corporation of London thirteen months ago knew that this bill was passed, yet they have not at present fixed upon a site or done anything at all towards the erection of this market. Now, what is the consequence? All our cattle which go into the London market are obliged to be slaughtered there, because of their coming in contact with foreign stock; and I would ask any of you who have had the misery of having a lot of cattle there on a bad market day, whether it does not seriously affect your interest? We cannot expect to get that market open until such time as there is a separate market for foreign stock. We have passed an Act of Parliament that has been put in force with a certain amount of unanimity in this county, endeavouring to get rid of these diseases, but I am sorry to say they still linger among us, and are on the increase. I don't doubt that in the course of this autumn, when we have our usual importation of stock from distant parts of the kingdom, we shall have serious outbreaks of the foot-and-mouth disease, and I would beg you to be very careful as to

the quality of the stock you buy, and the state of health they are in. I believe this will be the last of the pleasant gatherings we have had now for some years past at Attleboro' Hall. It must be a feeling of regret that we, who come here principally to meet our friends, should be deprived of so pleasant a holiday; but it must also be a feeling of regret that those excellent sheep which Messrs. Salter have so long offered for our notice are now to be dispersed, for I fear from the fact that they have to be dispersed, they have not altogether answered the purpose of the producers, Messrs. Salter. No one knows, who has not tried it, the expenses that are incurred by keeping up a good flock for the purpose of furnishing these annual ram sales. I know that they are increasing expenses, and I don't wonder that my friend Mr. Salter has found out that he cannot bestow that time and attention upon them any longer; and that, therefore, he gives them up. This year, when our crop of turnips is so slender, and our new layers are so faint, it is more than ever necessary that we should supply ourselves with the very best stock, and I think for quantity and quality of mutton, and length of wool, you cannot find any sheep superior to Messrs. Salter's; and as I know that in this district the old black-faced ewe is still a favourite with flockmasters, I say it is impossible to find a better cross for them than coming to these Attleboro' rams.

AGRICULTURAL REPORTS.

REVIEW OF THE CATTLE TRADE DURING THE PAST MONTH.

There has been no distinguishing feature in the cattle trade of the past month. Notwithstanding the war we have continued to receive supplies from the Continent, and large numbers of beasts have come to hand from Tonning. It is expected, however, that the shipments from this port will be immediately stopped. We have also received some good animals from Spain. From our own grazing districts the arrivals have been on a full average scale; but there has been a scarcity of really prime stock, although certainly many good useful animals have been exhibited. As regards trade a fair amount of firmness has been apparent, notwithstanding the absence of activity in the demand. The best breeds being scarce at one time realized 5s. 8d. per 8lbs., but the quotation at the present moment is 5s. 6d. per 8lbs. Other breeds have been purchased quietly, and the currencies have been somewhat irregular.

The supply of sheep has been about an average, both as regards number and condition. For most descriptions the trade has been firm, and enhanced quotations have been paid, the best Downs and half-breeds selling at 5s. 6d. to 5s. 8d. per 8lbs.

In the lamb trade there has been a want of animation, but prices have been without change, ranging from 5s. 10d. to 6s. 6d. per 8lbs.

Calves have been in moderate supply, and fair request, at about late rates. Pigs have sold slowly.

The total imports of foreign stock into London during the past month have been as under:

Beasts	...	...	7,278	Head.
Sheep and Lambs	...	...	32,558	
Calves	...	...	2,301	
Pigs	...	...	2,388	

COMPARISON OF IMPORTS.

Aug.	Beasts.	Sheep and Lambs.	Calves.	Pigs.
1869	8,840	30,116	3,245	2,803
1868	10,179	26,112	1,883	3,288
1867	8,741	23,943	1,037	5,726
1866	14,927	44,566	2,960	4,087
1865	16,536	61,060	3,287	8,251
1864	11,475	41,830	2,786	4,326
1863	9,502	39,062	4,327	4,108
1862	5,630	35,056	2,060	3,297
1861	6,581	35,386	1,874	3,718
1860	6,647	40,105	2,520	4,075
1859	6,502	32,483	3,254	1,805

The arrivals of bullocks from our own grazing districts, as

well as from Scotland and Ireland, thus compare with the three previous years:

From—	Aug. 1870.	Aug. 1869.	Aug. 1868.	Aug. 1867.
Lincolnshire, Leicestershire, and Northamptonshire	6,550	8,950	9,600	7,200
Other parts of England	2,830	1,720	1,590	2,500
Scotland	109	13	306	70
Ireland	130	290	295	310

The annexed figures show the total supplies of stock exhibited and disposed of during the month:

Beasts	...	...	23,330	Head.
Sheep and Lambs	...	...	164,690	
Calves	...	...	3,538	
Pigs	...	...	1,140	

COMPARISON OF SUPPLIES.

Aug.	Beasts.	Sheep and Lambs.	Calves.	Pigs.
1869	22,179	155,660	3,769	543
1868	22,230	176,050	3,253	1,175
1867	20,030	124,120	2,690	2,205
1866	26,840	153,720	2,690	2,560
1865	29,600	147,520	3,828	2,480
1864	29,420	154,800	3,426	3,046
1863	26,264	149,430	3,070	2,622
1862	24,072	154,920	2,354	3,012
1861	23,420	159,740	2,952	3,220
1860	22,290	151,500	3,348	2,070
1859	23,170	165,090	3,322	2,320
1858	26,915	151,530	2,127	3,510
1857	20,695	143,768	3,173	2,450
1856	21,271	147,250	3,354	2,875

Beasts have sold at from 3s. 6d. to 5s. 8d., sheep 3s. 6d. to 5s. 6d., lambs 5s. 10d. to 6s. 6d., calves 3s. 4d. to 5s. 6d., and pigs 4s. 2d. to 5s. 8d. per 8lbs. to sink the offal.

COMPARISON OF PRICES.

	Aug., 1869.			Aug., 1868.		
	s.	d.	s. d.	s.	d.	s. d.
Beef from	3	4	to 5 4	3	0	to 5 6
Mutton	3	4	to 5 6	3	0	to 5 6
Lamb	5	4	to 5 10	4	6	to 5 6
Veal	4	0	to 5 4	3	6	to 5 2
Pork	3	10	to 5 2	3	4	to 4 4
	Aug., 1867.			Aug., 1866.		
	s.	d.	s. d.	s.	d.	s. d.
Beef from	3	9	to 5 2	3	8	to 5 6
Mutton	3	2	to 5 4	3	10	to 6 0
Lamb	4	6	to 5 6	5	8	to 7 4
Veal	4	0	to 5 4	4	0	to 5 4
Pork	3	4	to 4 4	4	0	to 5 0

The dead meat markets have been moderately supplied. The trade, on the whole, has been quiet, at about late rates. Beef from 3s. 6d. to 3s. 10d., mutton 3s. 10d. to 5s. 2d., lambs 5s. 4d. to 5s. 8d., veal 4s. 8d. to 5s., and pork 4s. to 5s. 4d. per 5lbs. by the carcase.

NORTHUMBERLAND.

Harvest, which in early spring months promised to be late, has been hastened forward by the unprecedented dry, hot, and often withering days of June and July. Reaping was partially begun on early gravelly soils adjacent to Wooler and Beaumont Water the first week in the present month, and by the 7th harvest became general over the entire district. Oats, being dried up at the roots, were a very short crop. Barley was our best crop. Wheat, which on all our loamy soils was in former seasons first ready for the sickle, has this season on many farms been left for the "kirk," or finish; and by the end of the month, with such roasting atmosphere, a very large portion will be in stack. We may safely assert that over ninety per cent. of the entire cereal crop, and a large breadth of beans and peas, has been cut by machinery. So far as our information goes, no test as to yield of grain is certified; yet the sheaf-bulk, when packed together in the stack, will fall woefully short of average years—a poor prospect for winter-keep, in face of the small hay-crop and the totally dried-up pastures. Our only hope is that the winter may be a mild one.—Aug. 26.

NORTH RIDING OF YORKSHIRE.

With the brilliant harvest weather the work is proceeding vigorously. Nearly all the grain in this district is cut, and a considerable quantity secured. The wheat crop is turning out as, according to our last report, we anticipated, viz., a fair average crop. The bulk of straw not excessive, but quality fine and likely to yield well. The barley crop is very good—thick on the ground, all standing, and the heads of a good length, and, so far, much has been secured without a stain. Oats are deficient in bulk and the yield likely to be bad. In many fields a large proportion of smutted heads are seen, and on all but the deep, loamy soils the grain is thin-bodied and light. On the 18th instant we had about half an inch of rain and some trifling showers since, which includes the whole of the rain-fall in this part of the country since the beginning of July. Our pastures are fairly burnt up, and afterwards have never had the least chance of growing. To maintain outdoor stock hay and artificial foods have to be given; but with all the aid that is given they make but little progress, and prime beef is very scarce. The root crops have made little growth. The white turnips are very backward and are suffering from the ravages of the grub. Swedes are, and have been, at a standstill, and the whole crop is very patchy. Our prospect for winter keep is very bad indeed.—Aug. 26.

AGRICULTURAL INTELLIGENCE, FAIRS, &c.

ALFORD FAIR.—There was no difficulty to find a buyer for each lot, upwards of 400 sheep being penned, which sold at about 35s. to 50s. for drapes and ewes, fat mutton 7d. to 7½d. per lb., lambs 18s. to 30s. each, 13 fat and store beasts, which averaged 9s. per stone.

APPLEBY FAIR was a dull hanging one, and owners, who held firm, were obliged, in order to effect sales, to submit to current prices, owing to the scarcity of food. Grey-faced wether hogs brought from 15s. to 16s., half-bred do. 14s. to 18s., three-parts bred 18s. to 22s., black-faced wethers from off the fell 18s. to 22s., black-faced ewes 20s. to 25s., and half-bred ewes 40s. to 45s. Fat sheep and lambs were good to sell, and brought high prices, but other stocks were quite a drag, and many remained in the evening in the pens unsold.

BODMIN FAIR.—Fat cattle and sheep sold freely, but in consequence of the scarcity of grass the demand for store cattle was very limited. Good horses were much asked for, but the prices wanted for a few superior animals present were so large that little business was done until late in the day. The following prices were made: Fat cattle from 70s. to 72s. per cwt., store cattle 40s. to 42s., cows and calves 60s.; fat sheep 7d. to 7½d. per lb.; ewes 35s. to 40s. each, lambs 25s.

BOSTON FAT SHEEP MARKET.—Very few penned, and prices ranged from 8d. to 8½d. per lb.

CARLISLE FAIR.—In the lamb market a great falling off in the number shown as compared with last year, only 13,000 being placed. Last year upwards of 34,000 lambs were exhibited. In the earlier part of the day business was slow, buyers being unwilling to accede to the terms of the holders. In the afternoon, however, the market became more animated, and lambs sold pretty freely at the following prices: Half-breds 19s. to 34s., Cheviots 16s. to 19s., crosses 16s. to 24s. These prices bear favourable comparison with those of recent markets, and are considerably in advance of those obtained at this fair last year. The number of cattle was very small, and consisted mainly of Irish and cross-breds, for which £1 to £12 each were the average prices.

DUNDEE FAIR.—Among the fat cattle shown were several good lots, the top lot selling at £22 per head. Subjoined are a few of the sales: A lot of ten two-year-olds at £21 10s., a lot of four at £18, three queys at £14, a pair for £12, a single beast at £15, a lot of ten Highland cattle at £7, and several small lots of yearlings at from £7 10s. to £10. The show of milch cows, chiefly Ayrshires, was good, but far in excess of the demand. Mr. Liddle, Denny, showed thirty, and sold a few only at prices ranging from £13 10s. to £20. Mr. Thomas Nicol, Forlar, showed twenty-two, and sold some at from £12 to £21. Four harness horses sold at prices ranging from £15 to £48.

DUNSE HOOK FAIR.—There was a very good show of lambs, and the demand was fair, prices ruled much the same as at Lanmas, though in some cases from 2s. to 3s. a head were obtained in advance of Lanmas. A lot of bred lambs sold at 30s.; a lot at 28s.; a lot of three-parts-bred at 28s.; a lot at 22s.; a lot at 22s. 6d.; a lot at 26s.; the Greenlaw Dean lot at 22s.; a lot at 20s.; a lot of three-parts-bred at 20s.; a lot of grey-faced at 12s.; a lot of sheep at 38s. a-head. Leicester tups, a lot of twenty, brought an average of £6 14s. 10d., the highest priced one £13 10s. Mr. Wilson of Cumledge's lot of seventeen brought an average of £7 13s. 4d. the highest one in this lot being purchased at £15.

IPSWICH LAMB FAIR.—Owing to the scarcity of feed and poor prospects as to turnips, trade was dull. Lambs made from 20s. to 30s. Messrs. Spurling and Sons had some 2,700 sheep and lambs, the disposition of which was at the fall of the auctioneer's hammer. Mr. Keeble's (Tattingstone) lambs sold at 26s. to 28s., Mr. J. Lay's (Bentley) 24s. to 27s., Mr. J. C. Cobbold's 22s. 6d. to 27s., Mr. T. Wainwright's (Ixworth) black-faced ewe lambs 26s. to 28s., shearing ewes 38s. 6d. to 43s., two-shear ewes 40s. to 43s., black-faced tups 40s. to 50s.; Mr. Cooper's (Holton) ewes 40s. to 45s.; Mr. Emerson's (Sadron Walden) shearing tups 40s. to 50s., lambs 30s. to 40s.; Mr. Woodward's (Old Newton) 45s. to 46s.; Col. Tomline's, M.P., shearing ewes 38s. to 40s., crones 24s.; Mr. W. Gurdon's (Brantham Court) shearing ewes 45s. to 46s., crones 36s. to 39s. Messrs. Cruso and Hawkins had a number of tups for sale. Twenty shearing Norfolk Cotswold rams belonging to Mr. Thornton, averaged £7, the highest price being £9 15s.; and 20 pure Lincolnshires, the property of Captain Catling, Needham Hall, Wisbeach, averaged £7 15s., the top price being £10 15s. Of Mr. C. Boby's Southdowns 7 only were let, at £6 6s. each.

KNARESBRO' FORTNIGHTLY MARKET.—There was a moderate attendance of buyers, and a thin supply of fat stock at 8s. to 9s. per stone. Fat sheep 7d. to 8d., lambs 8d. to 9d., fat calves 7d. to 7½d.

LANARK SECOND LAMB MARKET.—The stock consists of black-faced ewe and wether lambs, Cheviots, and crosses. Generally ewe lambs take the lead in regard to numbers; but on the present occasion wether lambs were by far the largest class, and certainly greater than has ever been seen at the second fair at Lanark. The total number of all kinds was estimated at about 25,000, or nearly a third more than last year, which may be accounted for by the large turn out of wether lambs. The attendance of purchasers, both from England, the north of Scotland, and the Lothians was moderately good, and a considerable stroke of business was done in black-faced ewe lambs by English buyers, and also in black-faced wether lambs by those from the north. Wether lambs had a very bad sale, and in sympathy with the slowness of trade prices were back 2s. apiece from the lamb fair held at Lanark a fortnight ago. The best demand was for black-faced ewe lambs, the

whole of which were understood to be sold at prices above those obtained last year, the increase ranging from 1s. 6d. to 2s., according to the character of the stock and the fortune of the seller. Cross lambs were also in request, and they may be quoted at 3s. apiece above the value which they made in 1869. Cheviot stock was thinly represented. With the exception of a few tops, nearly all the lots of lambs on sale were seconds.

LINCOLN FAT STOCK MARKET.—A large number of beasts, but very few in first-rate condition, they made 9s. per stone, and mutton 8d. per lb.

MARLBOROUGH FAIR.—A larger number of sheep than has been known for many years, and prices receded 3s. to 4s. per head, several lots remaining unsold. The highest price for ewes was 53s., realised by Mrs. Price, of Wolfhall, who also made 45s. for lambs. Mr. George Brown made 50s. for the prize ewes, bought by Mr. T. Owen, of Clapton.

MELTON MOWBRAY FAIR.—The show of horned cattle was quite as large as might have been expected from the long continued drought, and prices (though unremunerative to the grazier) were very fair for useful mated and half-mated beasts. Norfolk jobbers were present, but acted with caution. The pitch of sheep was quite up to the average; lambs from 20s. to 24s. per head.

ROMNEY FAIR.—About 12,000 sheep and lambs were penned—nearly all Romney-marsh bred and fed, but, as might be supposed, considering the extreme drought which has prevailed almost without intermission since the lambing-season, most of the latter on offer were in poor condition. Togs and ewes also bore evidence of the shortness of keep, but, notwith-

standing, business was brisk. Lambs realised from 10s. to 20s., togs 27s. to 33s., and ewes from 22s. to 30s. per head.

ROMSEY SHEEP FAIR.—The number penned was above an average. Trade was heavy, and the prices realised were from 3s. to 4s. per head less than last year. Lambs fetched from 18s. to 25s.; ewes from 25s. to 34s. There was a ready sale of sheep fit for the butcher, at good prices.

RUTHERGLEN FAIR.—Milch stock has gone to a very high value; there was no fall in the value of cattle, however, and prices were much in accordance with those obtained at the market last month. The largest lot of milch cows in the fair sold at from £13 to £18. Mr. John Dunlop sold at from £12 to £19. Draught horses ranged from £25 to £45, and in a few instances from the latter figure to £60 was obtained. Harness horses sold at from £30 to £50, and ponies from £10 to £26.

SALISBURY FORTNIGHTLY MARKET.—There was a preponderance of middling and inferior qualities. The best made good prices, one lot of prime Devons realizing as much as 14s. per score. Trade however ruled slow, especially for inferior animals, which were purchaseable at lower figures than at last market, and were not cleared off. In the sheep department some 2,500 were penned of various qualities. Secondary sorts made rather less money than before, but good pens maintained late rates, and the whole found purchasers. Best oxen realized from 12s. 6d. to 13s. 6d. per score, and heifers from 11s. to 12s. Wether mutton made as a general rule from 8d. to 8½d. per lb., and ewe ditto from 7½d. to 8d.

REVIEW OF THE CORN TRADE DURING THE PAST MONTH.

While the past month has been the time for the gathering of providential blessing, and much of the corn which lately covered the fields has been safely housed, the savage and unreasonable lusts of men have gathered hostile armies for deadly combat, and the earth from which we all spring has been saturated with human blood. We can only hope that the terrific sacrifices of human life will soon come to an end, and that the victories of Prussia will be so complete that peace once more will be in the ascendant. England has no small reason to be thankful that she has done her best to prevent this effusion of blood, and has kept aloof herself from the tremendous strife. But these political movements have made most unsteady markets; first an unusual rise, then an equal depression, as warlike or pacific views were entertained, and in expectation of the latter new wheat has already fallen from its first made prices 6s. to 7s. per qr., and old, both foreign and English, have given way 3s. to 4s. per qr.; but at this point there seems something like a settlement, and with red wheat at about 50s. and white at 54s. in London, we seem to have arrived at an approach to safety for farmers under most unusual circumstances. With only an average crop as the highest estimate, we see no hurry to realise such prices, especially as the Baltic is shut up both by a Prussian prohibition and a French fleet, and the ordinary return of winter will most probably shorten the receipts from Prussia, &c. The export of wheat to France has ceased since she has gathered her own crop, but immense quantities of oats have been taken for that country, where the yield has been very deficient; and beyond this there has been a free export of flour, the exigencies of the war requiring the manufactured article for the population of Paris. The quality of the new wheat has been answerable to the fine dry weather, but the temperature has varied exceedingly, the third week having brought frosty nights and mornings, and still heavy rains are much needed to revive the meadows, which have yielded so scanty a crop of hay. Unless they fall soon lean stock must be forced for a time

upon the meat market, and eventually add much to its price; and what mischief this war will do is yet to be seen in the way of waste and destruction. The following were the range of prices recently paid at the several places named: White wheat at Paris, 52s., red, 50s.; old white at Bordeaux, 56s., new, 52s.; red in Belgium from 54s. to 58s.; at Hambro', 52s. to 53s. 6d.; at Rostock, 52s.; in different parts of Spain, 48s. to 50s.; at Pesth, 41s.; in Italy, 50s. to 53s.; at Rostoff, 34s. to 36s.; at Alexandria, 40s.; at Algiers, hard 43s., soft 49s.; New York, No. 2 red, 43s. c. f. i.; San Francisco, 53s. 6d. c. f. i.; best wheat at Adelaide 5s. 4d. per bush.

The first Monday in August commenced on a moderate English supply of wheat, with heavy arrivals from abroad, nearly 40,000 quarters being from the Baltic alone, and 12,000 from America. The show of samples from the near counties was scanty this morning, and with them appeared some new Talavera of moderate quality, which sold at 60s. The trade on the whole was quiet, but 1s. over Monday's rates was generally realised. In foreign samples the choice was for Russian qualities, which also brought about the same improvement. This advance noted in the metropolis was quickly responded to in the country, scarcely any market being without an equal advance, while a rise of 2s. was reported at Bury St. Edmund's, Birmingham, Hull, Rochester, Stockton, &c., Market Harborough and Melton Mowbray being 2s. to 3s. per qr. dearer. At Glasgow and Edinburgh the advance was about 1s. Dublin could only report more firmness both for native and foreign produce.

On the second Monday the English returns were small, but the foreign again considerable, though little beyond half the preceding week. A small exhibition of samples was made on the Essex and Kentish stands, nearly half was new, the best red (weighing 64lbs. per bush.) brought 58s., and the best white (weighing 63lbs. per bush.) 61s. High prices were at first demanded for old, but millers would not exceed previous rates. The foreign trade was firm, and some descriptions occasionally brought an

advance of 1s. per qr. Sales of floating cargoes could only be made by some concessions. The country trade this week was extremely dull; though many places held on for the previous rates, others accepted a decline of 1s., and some were 2s. easier, as Birmingham, Bristol, Gloucester, Newcastle, and Stockton. Liverpool was 3d. per cental down on Tuesday, with an equal decline on Friday. Though Glasgow did not make the reduction over 1s. per qr., Edinburgh wrote a reduction of 2s. to 3s. In Ireland the corn trade was dull, Dublin and Cork giving advices of the same tenor.

On the third Monday the home supply was moderate, but that from abroad was greatly increased, Danzig and Rostock sending 30,000 qrs., and America 17,000 qrs. A severe reduction was noted in new samples from the starting prices, the highest for red being 52s. and white 54s., while old fell in value 3s. to 4s. per qr., though little was offering. The business done in foreign consisted principally of American sorts, which also were quoted 3s. lower, and to sell other qualities the same decline was required. Floating cargoes were reduced also in value 3s. per qr. The great fall noted in London threw the country markets into apparent confusion, and most irregular rates were the consequence, inasmuch that we can only take the average decline on new at 5s. to 6s. per qr., and old about 3s. to 4s. Liverpool was down 6d. for the week per cental on Tuesday, and very dull on the succeeding Friday; and Glasgow was down 1s. per boll, or 2s. per qr. Edinburgh declined 2s. to 3s. per qr. Dublin noted a reduction of 1s. per barrel, on old foreign, sales of new red being made at 31s. per barrel.

On the fourth Monday there was a slight increase in the English supply, and a great reduction in the foreign, though still good. There was a fair show this morning on the Kentish and Essex stands, mostly new, of good quality. A few samples early in the day went off from the Essex stands at about the previous currency; but as the day advanced Kentish factors found they had to make a reduction of fully 1s. per qr. before they could do business. This being done, the show was pretty well cleared off. Old was, however, no lower, there being but little offered. The foreign trade was moderate, consisting principally of a demand for Russian and American sorts, which in some cases were sold on rather easier terms, though those of fine Galatz were held as on the previous Monday. Floating cargoes were quiet. The country trade this week was but little changed; but there was an occasional decline of 1s. and sometimes of 2s. per qr. on new samples.

The imports into London for the four weeks were 20,419 qrs. English, 193,316 qrs. foreign, against 15,005 qrs. English, 183,998 qrs. foreign, for the same period in 1869. The London exports in the same time were 2,260 qrs., with 31,375 cwts. flour. The imports into the kingdom for the four weeks ending 13th August were 3,197,879 cwts. wheat, 310,667 cwts. flour, against 3,282,531 cwts. wheat, 466,276 cwts. flour, for the same time last year. The general averages commenced at 49s. 9d., and closed at 54s. 10d.; and the London averages began at 59s. 2d., and closed at 55s. 10d. per qr.

The flour trade during the four weeks has not materially varied. There was a decline in country sorts of 2s. per sack on the third Monday, notwithstanding a demand for France; and though that demand was partly kept up on the fourth, there was so little home inquiry that it only served to prevent a fall. Barrels fell at the same time fully 1s., and they have since remained without change. Town millers have not lowered the top price, which has remained 54s. The imports into London for the four weeks were 62,343 sacks English,

14,097 sacks 29,932 barrels foreign, against 62,234 sacks English, 33,874 sacks 7,238 barrels foreign, in 1869.

Maize has been declining all through the month, making the reduction in four weeks 4s. to 5s. per qr., good useful yellow being procurable at 31s., which was recently selling at 35s. and more. The imports for the four weeks were 71,934 qrs., against 19,851 qrs. in 1869.

The crop of English barley being exhausted, and but very few samples of new yet appearing, the few shown have brought good prices, say 40s. to 44s.; but values cannot be said to have yet settled. The great reduction in Indian Corn could not fail to influence grinding sorts, which for the last four weeks have given way fully 1s. per qr. every week, for fair quality may now be had at 26s. to 27s. The London imports for the four weeks were 767 qrs. English, 38,338 qrs. foreign, against 1,352 qrs. English, 8,060 qrs. foreign, in 1869. We think it probable there may be some recovery from this decline, as stocks of foreign are low, and the new English will be much above these rates.

The malt trade has been dull, and tending downwards.

With some of the new crop of oats arriving, there has been a gradual increase in the English supply, partly owing to the better prices lately made through the extraordinary demand for France, which country has taken the large amount of 139,470 qrs. in four weeks; but there have been equally extraordinary imports, leaving the balance against prices of about 2s. per qr. Russian 38lbs. per bushels, lately worth about 25s. or more closed at 23s., there being some symptoms of an upward movement at the last market to the extent of 6d. per qr. What France may yet require there is no foreseeing; but we know that German ports are closed against us, and this may materially reduce our receipts. Our own crop is decidedly short, and at the best times never comes up to our necessities. The imports into London for the four weeks were 6,144 qrs. English, 62 qrs. Scotch, 1,300 qrs. Irish, 493,133 qrs. foreign, against 4,310 qrs. English, 180 qrs. Scotch, 1,000 qrs. Irish, 127,715 qrs. foreign, for the same period in 1869.

The occasional appearance of new samples of beans of good quality, together with moderate foreign supplies, and a general reduction in feeding stuffs, have caused this grain, which lately commanded high rates, to gradually give way, say from 2s. to 3s. per qr. in the four weeks. For some hard new winter 42s. was bid on the fourth Monday. The imports for four weeks into London were 1,232 qrs. English, 2,569 qrs. foreign, against 1,038 qrs. English, 2,640 qrs. foreign for the same period in 1869.

New peas have also increased the English arrivals to a moderate extent, but very large imports of inferior mixed white from the Baltic have caused a general decline in this pulse to about the same extent as beans, with, however, much more difficulty to place them. Some low sorts might be had at 32s. to 33s., the better at 35s., and the best white at 38s. to 40s., duns 37s. to 38s. The imports into London for four weeks were 2,258 qrs. English, 35,026 qrs. foreign, against 1,176 qrs. English, 6,674 qrs. foreign in 1869.

The supply of linseed having only been moderate and the want of grass making feed scarce, both seed and cake have found a fair inquiry at full prices. The imports were 23,343 qrs., against 42,752 qrs. in 1869. Very little has lately been passing in cloverseed, but prices have ruled firm. New trefoil has been placed at moderate prices. New white mustard seed and winter tares have been inquired for, but as rain is much wanted, and the prices asked have been high, buyers have preferred holding off.

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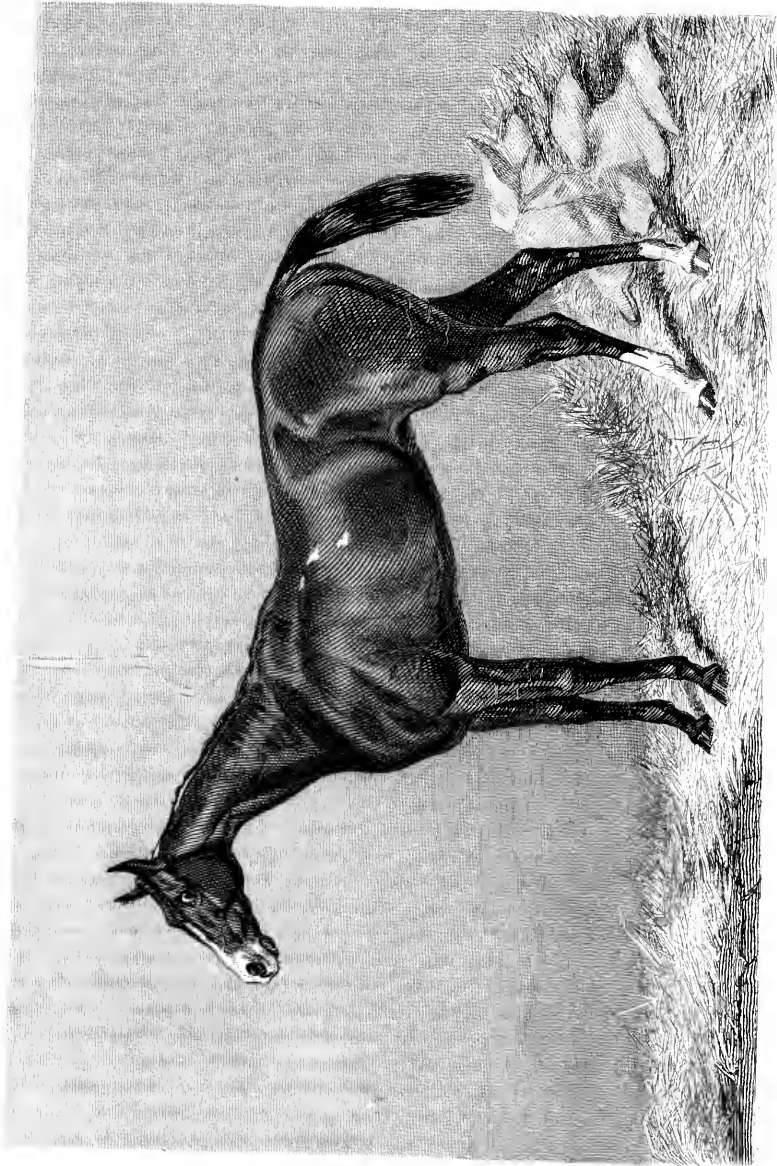
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W. Woodcut. 1844.

THE FARMER'S MAGAZINE.

OCTOBER, 1870.

PLATE I.

LADY ANNE; A PRIZE SHORTHORN COW.

THE PROPERTY OF MR. JAMES HOW, OF BROUGHTON, HUNTINGDON.

Lady Anne, a red-and-white cow, bred by Mr. Logan at Maidue, near Newport, in Monmouthshire, and calved August 14th, 1866, is by Prince of the Empire (20578), out of Lady Elinor by Sir Roger (16991), her dam, Lady Sarah, by Baron Warlabey (7813)—Lady Mary by Leonardo (7137)—Lady Anne by Emperor (1014)—Studley by Studley (628)—by Stirling (2705).

Prince of the Empire (20578), a red-and-white bull, bred by Mr. Carr, of Stackhouse, and calved September 12th, 1861, is by Elin King (17796), out of Wide Awake by Royal Buck (10750), her dam, Bonnet, by Buckingham (3239)—Bliss by Leonard (4210)—Young Broughton by Young Matchem (2282)—by Jerry (4097)—by Young Pilot (4702)—by Pilot (496)—by Son of Apollo (36). Prince of the Empire was sold to Mr. Logan, at three months old, for 300 gs.

Lady Elinor, a red-and-white cow, bred by Lady Pigot, and calved January 17th, 1861, is also the dam, amongst others, of La Belle Hélène, another well-known heifer in the show-ring.

At Mr. Logan's sale, in the spring of 1867, Mr. How bought Lady Anne, then seven months old, for 30 gs.; but he did not exhibit her until the following year, since when she has been very busy, as the subjoined list of prizes she has taken will tell:

- 1868.—1st prize, Norfolk Society, at Downham, on June 18.
1st prize, Bedfordshire, at Luton, June 26; and the special for the best animal in the yard.
1st prize, Cambridgeshire and Isle of Ely, at Newmarket, July 1.
1st prize, Northamptonshire, at Oundle, July 2 and 3.
1st prize, Leicester, Royal Agricultural Society of England, July 16 to 21.
1st prize, South Lincolnshire, at Grantham, July 24.
3rd prize, Yorkshire, at Wetherby, Aug. 5, 6, and 7.
1st prize, Oxfordshire, at Banbury, Sept. 9 and 10; and the Champion prize for the best animal in the yard; also a champion prize for the best animal exhibited by a tenant-farmer.
1st prize, Huntingdonshire, at Ramsey, Sept. 23; and a silver cup for the best Shorthorn in any of the classes.
- 1869.—1st prize, Bath and West of England, at Southampton, May 31.

- 1st prize, Norfolk, at Attleborough, June 24 and 25; and cup for the best cow (she was entered as cow when only a heifer, for the cup).
1st prize, Oxfordshire, at Oxford, June 30; and the two champion prizes, as at Banbury, for the best animal in the yard.
1st prize, Northamptonshire, at Northampton, July 1 and 2.
3rd prize, Manchester, Royal Agricultural Society of England, July 19 to 24.
2nd prize, Durham, at Bishop's Auckland, July 29.
1st prize, Lincolnshire, at Lincoln, July 29 to 31.
2nd prize, Yorkshire, at Beverley, Aug. 4 and 5.
1st prize, Huntingdonshire, at Huntingdon, Sept. 15.
1st prize, Cambridgeshire and Isle of Ely, at March, Sept. 22 and 23.
1st prize, Bedfordshire, at Bedford, Oct. 1.
- 1870.—2nd prize, Norfolk, at Harleston, June 23 and 24.
3rd prize, Oxford, Royal Agricultural Society of England, July 18 to 22.
1st prize, Lincolnshire, at Sleaford, July 27 to 29.
2nd prize, Yorkshire, at Wakefield, Aug. 3 to 5.
1st prize, Northamptonshire, at Wellingborough, Sept. 15 and 16; 1st prize, Huntingdonshire, at St. Neot's, Sept. 21.

Lady Anne has had three calves at single births. Her last calf, born on her birthday, August 14th, 1870, is Lady Fragrance, a red-and-white heifer, by Lord Blithe (22126), an own brother to Mr. Booth's famous sisters Lady Fragrant and Lady Grateful, and a bull by which Mr. How has also calved this season out of Bright Hope, British Rose, Windsor's Butterfly, and Pauline 5th.

The Shorthorns Judges of the Royal Leicester Meeting in their report speak of Lady Anne as "a very perfect animal," as she should be, considering she beat here Mr. Booth's Patricia, put second to her and Mr. Booth's Lady Gaiety, the reserve number of the class. At Manchester the Judges wrote thus of her: "Lady Anne is a very good heifer, her fore-flank particularly a good point; although very fat, she carried her flesh very evenly."

Queen Anne's winnings in the show-ring amount in all to about £280, including seven silver cups; and she will not be shown again, but kept for breeding purposes.

PLATE II.

GAMOS; A THOROUGH-BRED FILLY.

THE PROPERTY OF MR. W. GRAHAM.

Gamos, bred by Lord Falmouth in 1867, is by Saunterer, out of Bess Lyon, by Longbow, her dam Daughter of Toscar, by Bay Middleton—Malvina, by Oscar—Spotless, by Walton.

Saunterer, bred by Mr. Jaques, in 1854, is by Irish Bird-catcher, out of Ennui, by Bay Middleton. He was sold when a foal for 50 guineas at one of the Easby sales, being booked to John Osborne for Mr. Jackson. During the four seasons he was in training he started fifty-five times, won twenty-seven, and ran second twelve times. He changed hands again previous to coming out as a four-year-old, when Mr. Merry gave at the hammer 2,100 guineas for the black, whose performances on going to the stud were thus neatly summed up: His pedigree shows a combination of blood celebrated for speed and stoutness, both of which qualities he possessed in a high degree—as proved by his running at two years old; his extraordinary performance in the Cambridgeshire at three years old; his winning as a four-year-old the Goodwood Cup and Emperor's Cup at Chantilly in a canter, beating the best English and French horses; and his running second at five years old when half fit to Fisherman for the Ascot Cup, beating off North Lincoln and Defender. He retired in possession of the Whip which he had held for two years. It was thus that we ourselves wrote of him immediately on the conclusion of his first season at the stud, when we met with him once again at the Great Middleborough Horse and Hound Show: "How nicely timed the change does come after so much of the big, beefy Windhounds and De Clares, to that neat, handsome, sweet bit of a racehorse Saunterer—'the black 'un,' as they call him—the truest-made horse of them all, with his well-knit back, his fine shoulders, his wicked little head, and thin, bloodlike neck. And then those legs, not big ones, your lordships, for he is not a big one anywhere, but as clean as paint and as hard as iron. Turn back to your *Calendars*, erudite Mr. Weatherby, and trace all he has done. Go back to memory, Mr. Dawson, or ask your next door neighbour all he could do; and you, Squire Jaques—'the melancholy Jaques' for once, as you stand by him in the box—and reflect how readily you 'got out' of him." Saunterer stood at Croft in 1860 and 1861, and at the end of his second season in York-

shire was sold to go to Hanover, whence he was reclaimed by Mr. Blenkiron for the Middle Park Establishment, where he has continued since the spring of 1866. His stock came out in 1863, and he is the sire amongst other winners in this country of the following: Coastguard, Crisis, Dandle, Olmar, Sir Roger, Zambezi, Attaché, Gertrude, Master Walter, Perambulator, Westley, and Gamos; the winner of the Oaks being amongst the first lot of three-year-olds out by Saunterer since his return to England.

Bess Lyon, bred by Mr. J. B. Shepherd in 1855, ran in a few races as a two-year-old, but without any success. In 1859, she threw her first foal, Blacklock (cut), to Ellington, and then passed into Lord Falmouth's stud, where her account stood thus: In 1860, Edgworth Bess, by Vandermeulin; 1861, Goldylocks, by Teddington; 1862, Brown Willy, by Wild Dayrell; 1863, Rallywood, by Wild Dayrell; 1864, Sunnylocks, by Newminster; 1865, Pearlfeather, by Newminster; 1866, missed to King Tom; and in 1867, Gamos, by Saunterer. Bess Lyon was sold with the Oaks filly at her foot to Mr. Blenkiron for £600, and her produce at Middle Park runs on thus: In 1868, Loadstar, by Saunterer; in 1869, a colt by Marsyas, that was sold the other day for 570 guineas; and 1870, a colt by Saunterer, to which horse the mare had been put again.

Gamos is a light chestnut filly, standing a full sixteen hands, although she looks higher. She has a plain head, not particularly well set on to a lean, ungainly neck. Her forehead, however, is otherwise set off by the most magnificent shoulders, long and beautifully laid. She has also good depth of ribs, but is otherwise a tall, staring filly, standing very straight on her legs, with curby hocks, and altogether middling and infirm-looking joints. Indeed, she was in her appearance as little like running over Epsom and winning the Oaks as anything in the paddock; and we certainly fancied the filly far more than a two-year-old. It is almost needless to say that she does not bear the least resemblance to her sire. At Mr. Blenkiron's sale in 1868 Gamos was knocked down for 220 guineas to Mr. Graham.

It will be noticed that the winners of the Derby and Oaks this year were both bred by Lord Falmouth.

THE CLAYS OF CORNWALL.

BY CUTHBERT W. JOHNSON, F.R.S.

The china-clays of Cornwall are of world-wide reputation. In travelling through that fine county the agriculturist will notice in various districts the very white character of some of the streams. This turbidness is owing to the preparation of the china-clays, which are washed out of the granitic soils, and also from certain mining operations. It will be useful to many a reader of this magazine if we examine the composition of these and other clays; and this will be the more interesting, since much greater attention is now profitably bestowed on our heavy soils than was a few years since deemed useful, better modes of cultivation are adopted, and their chemical composition much better understood.

This muddiness of some of the Cornish streams, caused by the preparers of the china-clay and the miners, is very injurious to some of the beautiful Cornish and Devon salmon rivers, and is the more to be regretted since it is capable of being prevented without injury to the valuable clay and mining operations. How these injure the fisheries, and the easy means of prevention, was not long since described by Mr. Frank Buckland, when addressing, at Exeter, the members of the British association. As he well remarked,

"The question of pollutions on the Devonshire rivers is a very serious one, and here we at once are met face to face by the danger of interfering with the commerce of

the country. According to mine-owners, rivers are the natural sewers to take away the washings of the mine: they therefore put all their pollutions into the river, and these act injuriously—1st, inasmuch as they prevent the fish ascending the rivers. 2nd, they kill them by some soluble or insoluble compound from the refuse of the mine: thus lately, on the Tavy, a mine was pumped out, and no less than seven or eight hundredweight of salmon and trout, small and great, were all destroyed. 3rd, the débris from the mines covers over the gravel, so that the fish cannot find spawning-places, or, having made their nests and laid their eggs, the eggs or young fish become suffocated by the mud. 4th, the pollutions from the mines destroy vegetation: the insects, therefore, are not hatched out, and the young fish consequently suffer from want of food. The 5th clause of the Fishery Act of 1861 gives a penalty for polluting water in which salmon are found; but practically this is found inoperative. There can, however, be no doubt that a system of catch-pits may very much lessen the injury. As an instance of this, I may mention that there were copper-mines near Snowdon which drained into the Glaslyn, passing first through three small lakes or tarns. The one nearest the mine afforded the necessary opportunity for the poisonous refuse to subside; and the fish in it have been completely destroyed, while in the second or third they were not injured in the least. The value of land in the neighbourhood of mines is generally very small, and catch-pits can be made at a slight expense by merely digging trenches in the ground. It very often happens that the washings from pollutions may be conducted along the brow of a hill: small channels should be cut into the main channel, so as to allow the pollution to spread itself out gradually over land which is really of no practical value."

The Cornish china-clays (to which I have alluded) are prepared from the soils resting upon the granite formation, by a process which is well described in Murray's "Cornwall and Devon," to which I am indebted for the following abridged account of the works in the neighbourhood of St. Austel:

In some places the granite is known as "soft growan," and is characterised by the partial decomposition of its felspar. In some localities the growan is tolerably firm, and is quarried under the name of "china-stone," which is extensively employed in the potteries. This china-stone is ready for sale when cut into conveniently-sized blocks. The softer china-clay, which is dug out of pits, and is known as "china-clay" or "kaolin," requires a much greater preparation for the purpose of separating the quartz and mica from the decomposed felspar. This clay is dug up, and placed upon an inclined platform under a small fall of water, and here it is repeatedly stirred with a "piggle" and spade; by which means the whole is gradually carried down by the water in a state of mechanical suspension. The heavy and useless portion of the clays collect in a trench below the platform, while the china-clay is carried on through a series of tanks, in which the heavier particles are deposited, until it arrives at larger tanks or ponds, from which, after resting for a time and depositing its clay, the clear water is from time to time withdrawn. When these ponds are filled with clay, they are drained, and the porcelain earth is removed to "pans," in which it remains until sufficiently consolidated to be cut into oblong pieces. It is then dried, and ready for being shipped. This clay was about a century since first noticed, and I believe prepared, by W. Cookworthy, a Plymouth Quaker.

From small beginnings, the amount of china-clay annually sent from Cornwall is at least 100,000 tons. It is shipped not only for the use of our Staffordshire and other potteries, but to France, Belgium, and other foreign

states. Its use is not confined to porcelain; it is also employed by the calico, linen, and paper makers.

Cornwall is not the only district from whence our manufacturers obtain their clay; there is a large quantity prepared in Dorsetshire, and other places, of varying qualities. That which is shipped from the neighbourhood of St. Austel is sold, according to its quality, at from about 15s. to 35s. a ton. I have no knowledge of the extent of the earthenware and porcelain annually required by our own country, but the exportation to foreign lands is enormous, and is annually increasing. The declared value of the earthenware and porcelain exported in the year 1855 was £1,000,738; this had increased to £1,642,550 in 1869, and in 1870 to £1,778,530.

The origin of this fine clay is interesting. To begin with the granite, by the decomposition of which by the action of the atmosphere its soils are produced; let us first remember its chemical composition. It is chiefly formed in varying proportions of felspar, mica, and quartz. These are composed in 100 parts of the following substances:

	Felspar.	Mica.	Quartz.
Silica	62.83	48.65	97.05
Alumina (clay).....	17.17	29.25	0.50
Lime	3.00	—	—
Oxide of iron.....	1.00	5.05	1.00
Potash	13.00	14.05	—
Oxide of manganese —	—	1.75	0.75
Loss in analysis.....	3.00	1.25	0.70
	100.00	100.00	100.00

The granite, notwithstanding its hard, tenacious nature, is slowly decomposed by the action of the atmosphere, and, when reduced to powder, its constituents are separated with considerable facility; thus the granite pavement of the London streets, which is gradually worn to powder, in that state readily part with its potash, and to such an extent that after rain the street water contains a considerable amount of potash. The formation of the soils of the granite formation was some time since thus traced by Mr. T. F. Jamieson, of Ellon (*Jour. Roy. Ag. Soc.*, vol. xvii., p. 461):

The felspar of the granite in the course of the changes brought about gradually loses its transparency and lustre, the surface becomes dull and earthy, and at length it falls down into a powder. This powder forms the kaolin or porcelain clay; its composition is somewhat variable, but approximates to—

Silica	47.2
Alumina	39.1
Water	13.7
	100.0

A little iron and lime generally remains, and frequently some potash or soda, according to what was the original constitution of the mineral, and the degree of completeness with which the alkalis have been washed out. The following table contains analyses of some varieties of porcelain clay:

	Cornwall. Boase.	Devon. Fownes.	Miessen. Forchhammer.
Silica... ..	39.55	47.20	46.46
Alumina	38.05	38.80	36.37
Peroxide of iron ... ..	...	...	...
Lime ... ..	...	0.24	1.47
Potash ... ..	...	1.76	...
Magnesia... ..	1.45	...	...
Water	12.50	12.00	13.61
Insoluble matter and tale	8.70	...	...

A comparison of these with the analyses given of felspar will at once show what has taken place. When the removal of the alkalis has been complete, or nearly so, a poor ste-

rile clay will be the consequence, but it is rarely that the alkaline silicate is altogether dissolved out. Forchammer considers that the yellow clay of Denmark consists of granite, the felspar of which has been altered, whilst its mica remains unchanged, its quartz forming the sand of the clay; while the blue clay results from syenite and greenstone, which have no mica. The clay derived from the potash felspar is wanting in lime, and not so favourable to vegetation as that from minerals which contain both lime and potash or soda. The red colour of the clay is owing to the presence of peroxide of iron. In the blue clays the colour would appear to be occasionally owing to carbonaceous matter acting on this peroxide and converting it back into the dark protoxide. Thus, below beds of peat, even in districts where the clay is otherwise red, a blue-coloured clay is usually found; and beneath vegetation red marls and sandstones are sometimes seen converted into a green or bluish-green colour, the carbonaceous matter abstracting part of the oxygen.

Sir Henry de la Beche some time since remarked the varying quality of the Cornish granite, and of the soils which rest upon them. He observed how much the fertility of these soils depend upon their elevation above the sea and the amount of rain they received (*Jour. Roy. Ag. Soc.*, vol. iii. p. 31). As he remarked, the relative fertility of the granite soil of Cornwall would appear greatly to depend upon the abundance and easily-decomposable character of the felspar in the subjacent rock; he also remarked that the relative proportion of mica would appear to have an appreciable effect upon such soils, tending to render them poor, due allowance being made for atmospherical influences. These, however, seem to influence very considerably the agricultural value of the granitic or growan soils (Cornish name for gravelly soils). Thus we have been unable to detect any appreciable difference between much of the granite on the high land of Dartmoor and that in the Scilly Islands, in places where both were well decomposed. In the Scilly Islands there is much growan land which is fairly fertile, producing good crops of potatoes, wheat, barley, and grass; while Dartmoor is merely covered by heath and coarse grass, and peat is abundant. In the one case we have islands in the Atlantic of small relative height, upon which snow is rarely seen; while in the other there is an extensive area in the interior of Devon varying from 1,400 to 2,000 feet above the sea, on which fogs are frequent, and snow often falls and rests before it is even seen on the lower grounds. The country around Moreton Hampstead, several hundred feet lower than the mass of Dartmoor, of which it is the geological continuation, forms a striking contrast as to fertility with the high granitic soils on the west of that town. The grass land is generally good, tolerable crops of barley are obtained, the potatoes grown are highly-esteemed in the Exeter market; yet the general character of the granite around Moreton Hampstead, and of that upon much of the adjoining high land of Dartmoor, are mineralogically the same.

Judging from Cornwall and Devon, there are few soils which are more influenced by relative elevation above the sea than the "growan" or granitic soils. No doubt there may be some variation in the mineralogical character of the subjacent granites, and consequently in their relative productiveness; but there is no doubt but that the fertility of the granitic groups of Cornwall gradually increases as they diminish in elevation. The growan soil frequently requires rain, of which, however, there is generally no want in the district. This season (1870) has been in Cornwall the driest ever remembered, little or no rain having fallen from February to September, yet the harvest has been excellent. On these soils potatoes are successfully cultivated. Of the cereals, barley and oats

are the most generally grown: wheat is more so than formerly. Trees, from the abundance of the sea breezes in Cornwall, require shelter. The oak, the sycamore, and the ash then grow well on the growan soils.

The amount of alumina in the clay soils of Cornwall is as various as in other places. In some districts they very beneficially practise the burning of the clay obtained from the substratum. The success of this operation of course depends upon the chemical composition of the clays thus treated, since, as a matter of course, the clay-ashes differ as widely in composition as the clays from which they are produced. We may still, however, form a pretty accurate estimate of the nature of the substances usually contained in clay-ashes from the chemical examinations which have been made. These ashes, the young farmer must remember, not only contain the earthy and saline matters of the clay and of its organic matters, but of the similar substances contained in the wood or other fuel employed in their preparation, with a considerable portion also of their carbon or charcoal; and this last substance, when the amount of ashes employed upon the land is very considerable, is much greater as regards the extent of the application of the charcoal than many farmers are willing to believe; and this evidently leads to another conclusion—that these ashes, from the absorbent powers which they hence possess, are well adapted to have liquid manures or other too-rapidly-decomposing matters mixed with them, either when they are used as a covering to farmyards or compost heaps, for the floors of buildings in which stock are kept, or in the preparation of drill manures. Davy examined the ashes obtained from a variety of soils, principally those by the now-nearly-exploded paring and burning system. He obtained from 100 parts of the ashes produced by paring and burning a stiff clay soil, at Mount's Bay, in Cornwall:

	Parts.
Charcoal	8
Common and other sorts.....	2
Oxide of iron	7
Chalk	2
Clay and sand	81

Supposing, therefore, that 50 tons per acre of these ashes are applied (a quantity often much exceeded), we from this analysis perceive that the farmer must often dress his land (in the ashes) with about four tons of charcoal per acre. And hence we may safely conclude that the good effects of such a dressing must be evident for several years, even if we allow but little benefit to be derived from the mechanical effects thus produced on the adhesive soils to which it is applied.

The cultivators of clay soils may indeed derive considerable benefit, in most instances, from a careful examination of the result of the labours of the chemist. It should for instance, be more generally known that the composition of a clay soil often varies materially at different depths, a fact of very considerable importance not only to the drainer, but to those who are endeavouring to permanently increase the fertility of their soils by deeper ploughings or by the mixture of different strata. To give only one example, an apparently uniform clay being analyzed by Professor Phillips (*Jour. Roy. Ag. Soc.*, vol. vii., p. 258) was found to contain:

	At 22 in.	At 54 in.
Silica	59.0	72.9
Alumina	23.5	13.4
Per oxide of iron.....	8.1	6.6
Carbonate of lime	1.0	0.8
Water, sulphate of lime, &c. ...	4.8	5.5
Carbonate of magnesia	0.0	9.8

And again, some valuable experimental researches upon the clays adapted for tiles were made by Professor Johnston. He found various infusible or fire clays to be com-

posed—1, from Cool Island; 2, from Stourbridge; 3, from Stannington; 4, from Howth, as follows:

	1.	2.	3.	4.
Alumina	30.8	38.8	40.9	23.2
Silica	46.2	46.1	43.0	67.96
Peroxide of iron and manganese	8.4	—	—	1.19
Lime	—	—	—	1.3
Magnesia	—	—	—	0.63
Potash	0.4	—	—	—
Water	14.2	15.1	14.7	3.79

Our tiles and bricks clays, says Professor Johnston, are usually red naturally, or become so when burned. This shows the presence of oxide of iron, one of the ingredients which tend to make them fusible. Many also contain lime, some in very considerable proportion. Magnesia is by no means uncommon, while potash and soda are always present in quantities more or less appreciable. It is the presence of these ingredients which gives to our bricks and tiles the burned, glassy, swollen, and porous appearance they occasionally present, and which at times, in the hands of a careless or unskilful fireman, causes them to run together into one melted mass. The following is the analysis of four varieties of good clay: 1, being from Cattle Hill, near Dunferline; 2, from Sherburn Hill, near Durham; 3, from Tullarone, county of Sligo; 4, from Portobello, near Edinburgh:

	1.	2.	3.	4.
Silica and sand...	64.14	61.09	66.16	53.95
Alumina	13.54	19.91	16.08	25.55
Oxide of iron ...	7.57	6.75	8.88	8.06
Lime.....	1.90	3.36	} 1.88 {	0.68
Magnesia	1.21	2.38		1.61
Potash	1.86	} 2.83	} 1.83	1.54
Soda	0.68			—
Sulphuric acid...	1.37	—	—	—
Carbonic acid ...	—	3.68	—	—
Organic matter and water.....	7.82	—	4.89	8.60

The very important practical conclusion to which the Professor arrived will be readily responded to by every agriculturist: "The cheapening of tiles is at present an object of the highest national importance. Our machines for making tiles, and for screening or washing clays, will not come into general use till the persuasion is every where spread that there is no clay so apparently bad, which, by a skilful preparation, may not be made fit for the manufacture of tiles." The absorption of water by various specimens of tiles and other building materials is often a question little regarded, especially in those cases where it is important for the sake of collecting rain-water for cattle, to employ for roofing a material which will not absorb the rain. The following table shows the result of our own trials to ascertain the amount of water absorbed by 1, a red brick; 2, a red pantile; 3, a square roof tile; 4, a slate, which the farmer will note does not absorb any water. This table shows the weight of the

material, after being dried for three hours in an oven, and then after being immersed in water for a quarter of an hour:

	WEIGHT.					
	Dried,		Soaked,		Increase.	
	Lbs.	Oz.	Lbs.	Oz.	Lbs.	Oz.
Red brick	6	6	7	8	1	2
Red pantile ...	4	11	4	13	0	2
Square roof tile	2	14	3	2	0	4
A slate	5	11	5	11	0	0

It was in the September of this year, when on a pilgrimage to the beautiful little Cornish port of Fowey, these facts engaged my attention. To this place, by means of the Lostwithiel railway, about 100 tons per day of the china-clay are brought and shipped. I have on former occasions alluded to the many other very interesting objects which Cornwall possesses; the noble cliffs of Grauwacke—serpentine and granite—with which it is environed; the brilliantly bright sea water, which rolls its waves against them; its minerals; its calcareous sea-shore sands and sea weeds, so extensively employed as manures. Its fisheries too are of abounding interest to the pilgrim from the more level portions of our island: and such a traveller, if an agriculturist, will not fail to notice the skilful way in which the cultivators of this noble county adapt their operations to the mildness and moisture of the climate and the hilly nature in general of their farms.

The live stock, cattle, sheep, and pigs of Cornwall especially attract the visitor's attention, and as he arrives in the neighbourhood of Penzance, the extensive districts devoted to the growth of brocoli and early potatoes will be examined with considerable interest. These occupy very many acres around Mount's Bay, and are extensively manured, besides the ordinary farm manures, with sea weeds. The quantity of these vegetables sent to the metropolis by railway is very large. The average annual despatch of early potatoes from the Penzance railway station for the past four seasons is 2,337 tons, and of brocoli 2,627. The largest total of potatoes was in 1863, when 3,146 tons were sent off, and of brocoli in 1868, when the quantity was 3,571 tons. This year 2,591 tons of potatoes and 2,574 tons of brocoli have been despatched.

The wanderer from other lands will also not fail to note the intelligence and courtesy of the Cornish men, their air of general comfort, and the absence there of anything like a beggar. Such a visitor, to, will recall to mind, when he remarks their very numerous fishermen and their sailors, that these are the men from amongst whom came many a noble British admiral who have well helped to preserve our empire of the sea, from the days of the Crusaders and the Armada, to the time of our own glorious Queen Victoria.

FORBIDDEN FRUIT AT THE AUTUMN SHOWS.

During the last fortnight or so the local agricultural shows have been at their full tide. Occasionally there have, no doubt, been too many meetings of the same kind in the same district to invest any one of these with any particular importance; nor, moreover, has the actual success of such exhibitions been altogether up to an average. Shortness of keep, the spread of the Foot-and-Mouth disease, with some other concomitant causes have thinned out the entries; while it looked at one time as if the consideration of any farmer's business would be crowded out at the after-dinner sittings by the one

absorbing topic of the day. In our ECHOES, a very good opening having been made at Leamington; at least as so it seemed, by the introduction of such matters as the desirability of extending the Lincolnshire Tenant-Right, of removing much of the hedge-row timber, and of keeping down the ground game. But all this, as it turned out, was all wrong; and, indeed, as the President subsequently hinted, if he had done his duty he should have called any speaker to order who "wandered into points likely to create differences of opinion and discussions hardly fitting for a meeting like the present. You must remember there

is a Chamber of Agriculture to which these matters more especially belong." Very good; or at any rate, let us say in passing that farmers have no right to talk about agreements, or timber, or hares and rabbits, as members of a county Agricultural Society, but to refer all such grievances to their county Chamber of Agriculture. Now it does so happen that one of these Chambers has been started in Warwickshire, and that only during last spring the Game Laws were very vigorously handled by that body, the proceedings terminating with the following straightforward resolution: "That rabbits and hares should be the absolute property of the occupier of the land, and that any agreement to the contrary between landlord and tenant should be null and void." Whereupon Lord Aylesford, in a letter of three lines, ordered his name to be taken "from the list of subscribers to the Warwickshire Chamber of Agriculture;" and Lord Warwick, in a more lengthy communication wrote to "explain the reason of my absence from their later debates. I do not go so far as to assert that the working of the Game Law is not a legitimate subject for discussion by a Chamber of Agriculture, but I will say that, considering how liable it must be to produce antagonism of classes, it should only be entered on in a moderate and kindly spirit"—and so on. In fact, so far as we can understand its tone and purport, Lord Warwick's letter reads vastly like a censure on the Chamber for ever taking up the game evil.

And now what is to be done? At Leamington Lord Warwick, as President of the Agricultural Society, says the game question is hardly a fitting point for the meeting to consider, and to this Lord Leigh says *hear! hear!* Turn it the rather over to the Chamber of Agriculture; and when the Chamber did take up the point Lord Warwick did not go quite "so far as to assert it was not a legitimate subject," but he intimated pretty well as much, and Lord Aylesford stopped his subscription. What is to be done? we ask. No one, we imagine, will be bold enough to maintain that the over-preservation of game will ever be corrected without protesting against the abuse! But then where are the farmers to do as much? Not at the agricultural dinners, or the noble chairmen will call them to order. Not at the Chambers of Agriculture, or the noble presidents and vice-presidents will keep away and stop their subscriptions. "I was not aware," wrote Lord Warwick in his famous letter, "that hares and rabbits had gone so far as to take the streets of Birmingham by storm;" but if the farmers are denied their opportunity elsewhere, the streets of Birmingham will take the hares and rabbits by storm, as there will be nothing else left for it but "urban indignation," the Farmers' Clubs, and the House of Commons.

Lord Warwick, as President of the Warwickshire Agricultural Society, thought they had wandered too much on to points hardly fitting for the meeting; such "points," as we take it, being *faria* agreements and heavy game-preserving. These topics were here introduced by Mr. Horley, a tenant-farmer; while at Walsall, Lord Hatherton, as President of the Staffordshire Agricultural Society, dwelt on precisely the same subjects: "All that was required was a simple, short, and fair agreement between landlord and tenant, with liberal covenants, and a covenant as to unexhausted improvements in case of outgoing tenancy. There could not be any difficulty about unexhausted improvements, because he thought that building and draining were the work of the landlord; and when he could not do it the tenant ought to be able to go to the landlord or his agent, and come to an understanding as to how he was to reconp himself for those improvements in case he became an outgoing tenant. There should be a liberal covenant with regard to unexhausted value of

maure in the soil. He held that with regard to that the tenant had a Tenant-Right." Again, he "depreciated in the strongest terms that modern system of cramming an estate with game to the great detriment of the land." Now it is evident enough that Lord Warwick would call Lord Hatherton to order, as if anything Lord Hatherton spoke only still more forcibly than Mr. Horley on "points hardly fitting for such a meeting." Then, at Tarporley, Sir Philip Egerton, the chairman, ran riot on exactly the same line. He talked chiefly, if after rather an odd fashion, of agreements and game: "No written document was equal to a good understanding between landlord and tenant—a mutual feeling of dependence one upon the other—a feeling of honour between man and man, and Christian man and Christian man." Surely, if a landlord in the chair thinks fit to express himself in this way, the tenant may be allowed a word or two, if only to say that the clearer the understanding the better, and the greater the feeling of dependence the worse in the long run for everybody.

However, as Lord Warwick cautions us, these matters are apt to get "somewhat personal"—"to require a reply"—"their discussion may lead to certain disagreements," and so on. In short, according to Mr. Caldecott, "Mr. Horley had lifted up two landlords, as if there were no others like them in the county," and Mr. Caldecott emphatically "would not have it." Thrice happy Warwickshire! Where, of course, every landlord gives his tenants the privilege to kill the ground game, sanctions the system of compensation for unexhausted improvements, and returns them the whole of their rent on the wheat land. In truth, it became such very bad taste to single out one or two when all were doing so well, that Lord Leigh at last protested that he

Did good by stealth, and blushed to find it fame.

"My private feelings led me to see that it would be better for me to give up ground game to my tenants, and I did so for that reason. But I never expected it would pass beyond my own tenantry. It got into the newspapers, and it has been to me a source of annoyance, as it appeared as if I wished to dictate to my neighbours." This naturally will only increase the dilemma. If we are not to talk about it, if we are not to cite a good example when we can, how are we to work upon those "private feelings," which leads landlords to do precisely the contrary? For our part we are inclined to think there is no better argument than an example, good or bad, and we would make the most of it.

At the Judges' dinner at Walsall the other day, we heard Mr. Masfen declare that, "as to the game question, there was no man who had a greater horror than himself of being game-eaten; while, at the same time no man had a greater horror of the question being taken up and used as political capital, as it had been by certain persons during the last twelve or eighteen months. It would be in his power to single out certain gentlemen, and he need not go many counties distant to find them, who had spoken very liberally upon this question for political purposes, but whose actions would not bear reflecting upon, their tenants suffering more from game than the tenants of any other landlords in the county." Now, good as this is, would it not have come all the stronger if the county not so far off had been named, or even the gentlemen who speak so liberally and act so differently? Still there is a wholesome tone in all this; and the moral of it is, that people who attend agricultural dinners with the idea only of paying vapid empty compliments to each other had by far better stay away, whether they be noble lords or tenant-farmers. It is a nice question, indeed, whether men who have nothing more to say should not at once be called to *order*.

THE NEW FOREIGN CATTLE ORDERS.

Mars, the God of War, has been depicted as attended by fire, famine, and pestilence, with an innumerable brood of minor evils, the offspring of the same malevolent trinity, in his train. The sudden outbreak of the rinderpest in Germany and France, therefore, is but the natural offspring of things, and another power of evil let loose to do mischief to mankind. Pestilence amongst cattle will now produce scarcity in the districts already eat up by mighty armies, and scarcity will probably produce famine, and famine pestilence, amongst the populations also debilitated by privations of almost every other kind. And thus the ministers of evil assist each other. Impressed with this tone of feeling, the public received the announcement that the cattle plague had appeared in Germany, with some apprehension; but the information still more recently published, that the rinderpest has already run through Germany, the whole of northern France, and invaded Belgium and Holland, startled the agriculturists of England as much as any news published during this year of stirring events. Now we would not endorse any alarmist sentiment, nor deal with a real danger and matter of fact in the sensational manner that is now so common, thanks to the special correspondents of the present day, like George Colman's friend, "two single gentlemen rolled into one," combining the author and artist, and *drawing*, therefore, doubly on imagination, in their confidential poupouring to the listening world. Still, it is possible to light the danger beacon without setting the old country on fire; and, therefore, while the facts are in themselves real and serious enough, there is no justification for giving currency to the opinion that the authorities are asleep or inert, and are not adopting every necessary precaution within their reach.

The plague, it appears, has been brought from Podolia and Hungary, where it seems to be permanently naturalized in the numerous herds of cattle that have been sent to Berlin for the use of the German armies. From Berlin the speed at which it has travelled is unprecedented. On the 8th of September, Mr. E. Eardley Wilmot, of the Privy Council Veterinary Department, writes that "information has been received of the existence of cattle-plague in Kaiserlauten;" and in a few days afterwards we learn that, after reaching Kaiserlauten, it immediately appeared at Saarbrück, in the French department of the Moselle, and at Bar-le-duc, only 70 miles from Paris; after which it spread with marvellous rapidity through Belgium to the Dutch district of Leyden, near Rotterdam. In fact, originating with the cattle convoys moving westward for the armies, it has out-distanced them, and, over-running the armies themselves, has spread over Northern France, Belgium, and Holland. To meet these facts, so far as they bear on our own circumstances, we have to record that the Privy Council has acted promptly and energetically. It has also officially announced that Holland and Belgium have both been in the list of scheduled countries "since the passing of the Act of 1869," and that, therefore, they have not been specified in the recent Order in Council dated the 9th of September, by which, immediately after the 14th of September, France takes its place on the list of scheduled countries; and all the regulations in the 4th schedule of the Act of 1869 apply to cattle brought from any port of France. This determination was arrived at by the Privy Council only "from the probability that her cattle may become infected by those which are sent from

Prussia for the use of the German armies." How quickly the probability has become a certainty is well known; and the decision of the Privy Council was certainly not a moment too soon, and we have a strong hope that it was not a day too late.

So recently as the 20th instant, the Council issued another important Order, by which all the regulations in the fourth schedule of the Act of 1869 "shall apply to sheep and goats brought to Great Britain from any port of the States of the North German Confederation or France, and landed in Great Britain; and all such sheep and goats shall be slaughtered within ten days of the landing thereof." It also orders that "with respect to cattle, sheep, and goats brought from any port of the North German Confederation or France, and landed within the Port of London, no such cattle, sheep, or goats shall be landed, except at places approved of by her Majesty's Commissioners of Customs, and set apart for such purpose, and, notwithstanding any order to the contrary, no animal shall be moved alive out of any place so approved and set apart." Moreover, "the Government here has issued instructions to Customs' officers at all the ports to exercise the strictest scrutiny and vigilance in the examination of foreign cattle;" and upon this and the ample means of information which Mr. Forster says the Government possess, we have to rely.

The recent Order in Council has been properly and promptly issued. What, however, is really wanted is the long promised new market for foreign cattle, on the banks of the Thames, and why have we not this? Is the Act permissive, or is it passed in one Session, with liberty to defer its being put into force to an indefinite time? If so, if it be not put off till the Greek Kalends, it will certainly be a dead letter until too late to prevent infection. If, however, it be the fault of the Corporation, we hope the Privy Council will look to it. Nero fiddled when Rome was in flames, and we have no doubt the civic authorities would still feed on turtle, and punish costermongers, while our herds were perishing. It was said by Sydney Smith that we should have no safety on railways until a bishop was smashed in a tunnel; and we believe that if the Privy Council had had Star Chamber powers, and had put the aldermen of the city upon vegetable diet immediately the Foreign Market Act had been passed, until its provisions were carried out, we should at the present moment have had such a market on the banks of the Thames, and London would now have been placed in the same position for preventing the spread of disease from foreign cattle as our provincial ports are. Still there is hope; on only Tuesday last *The Times* announced that "to-day Government will be asked by the civic authorities to sanction the purchase of a site for the proposed Foreign Cattle Market. This site is Deptford Dockyard, the sale of which by the Admiralty gave rise to certain questions at the close of the late Session. It is understood that the City Markets Committee has entered into an agreement to re-purchase 22 acres, for the sum of £91,000." This would look like land at last; whereas *The City Press* of Saturday declares emphatically that "whatever amount of truth there may be about this statement, one thing is quite clear—it is premature. The matter has not yet been decided upon by the Court of Common Council."

THE AUTUMN STOCK SALES.

"Well," drawled out a quaint country auctioneer, as he dropped down from his perch after a terribly dull sale on the Southdowns, "Well, I only wish we could have had that French gen'lman here again to-day!" And many will echo the aspiration; for, as our report of the Biddenham gathering runs, "it was remarked that the usual visitors from the Continent were absent, and it is probable there was also a deficiency of those foreign commissions which give so useful a stimulus to sales of this kind." Precisely so. We care not what breed it be—Southdown or Leicester, Oxford or Shropshire, Cotswold or Lincoln—but everywhere has there been the same deadness of trade, as we do not believe there has been a letting during the season but where the result has been considerably under an average. In many cases business has been so bad, that the auctioneer has discreetly declined to go through the catalogue, but preferred that anyone in the company should "call" any sheep he might fancy. At Hove, Mr. Turner, the chairman at the luncheon, said "the animals brought out might be in a lower condition than usual; but that was easily accounted for by the shortness of keep they had been suffering from. They had felt the effects of both a cold spring and a very dry summer; and, in fact, the weather had been against them ever since the beginning of March." This may be something, but not much, as we question whether a home customer, more especially, would care about hiring a ram for use in the same high flattering condition in which he might have been sent to take honours at Oxford. Indeed, at a Lincolnshire letting Mr. Dring, of Claxby, declared that "on these occasions he should be glad if the breeder could vouch that there were no sheep amongst them fed on anything but green food for the last six months. If kept on green food they would be leaner, few sheep would fall lame when they got them at work, and there would be more work in them." With the general shortness of keep, farmers may not care so much about extending or even maintaining the strength of their flocks; but the real secret of that slackness, which it would be only idle to ignore, is the absence of the "French gen'lman" and "the deficiency of those foreign commissions."

But there are lulls in most trades; and, although the ram-breeder may find more sheep on his hands than he quite likes to see, he can so far have no great reason to despair. The scientific cultivation of the sheep was never carried to so great a height as it is just at present. At Oxford and Manchester these sections supplied the chief features of the show. The Shorthorn may have driven out the Longhorn, and the Devon may be gradually dropping back to his home in the West; but the more varieties of sheep there are "invented," the more people would there seem to be ready to use them. The Leicester and the Southdown in their purity were never more appreciated, although wide ranges of country be covered with Shropshires and Oxfords and Lincolns. "No ram breeder," as it was said in a kind of commentary on the career of Bakewell, "ever died a rich man," and yet no one should be capable of doing more good in his degree. More modern practice, however, would go to dispute the truth of such an axiom. During the early autumn it is impossible to look into a local Journal without reading of the profuse hospitality, the genial welcome, and the jovial after-sitting associated with the annual letting of the famous Grange longwools or Hill-side shortwools, as the case may be.

The war, no doubt, has much to answer for, but even a Continental war cannot in these times be of very long duration, and Hope may still be found at the bottom of the box. It must be remembered that during the civil strife in America, "the Shorthorn fever," as it was termed, seemed to have quite died out. The rage, like the mania for tulips or Cochín Chinás, had quite spent itself—we should never see such prices again—a more wholesome tone would rule henceforth, and so on. And really for a season it did look as if this were going to be the case. But as we all know well enough highly-bred stock is again as highly or more highly prized than ever. A heifer now is worth more by some hundreds than the best bull would realize some few years since. And the secret here again is, if not precisely the presence of "the French gen'lman," at any rate the influence of "the foreign commission." Nothing does so much to make a sale, either public or private, as the fact that the foreigner is a buyer. Let the ram-breeder then bear this in mind. Just for a season his market is shut up by the war, as it might have been by the cattle trade; but his turn will come again, and probably with a better average than ever, so that we would counsel him not to lose heart, not to miss his opportunity on the show-ground, nor relax his energies in the sheep fold.

In sober truth, putting our Canadian and Australian customers out of court, the business done with good-pedigree cattle is hardly in a more encouraging condition than the demand for carefully-bred sheep. Week by week almost some of our contemporaries, with more nerve than we quite own to in this way, will not only announce but anticipate the highly successful dispersion of some renowned herd, which is about to be brought to the hammer. These notes of admiration will dwell on the excellence of the tribes, the curious felicity of the crosses, and the imposing appearance of the animals themselves. And yet the results have often been hardly worth reporting, if, indeed, they have not been here and there systematically suppressed. During the Royal meeting in July people were not particular for a thousand or two as to what they gave; and since then many a *Herd Book* entry, good to trace and good to look on, might have been picked up for twenty or thirty sovereigns, so strong are the vicissitudes of the trade, or so whimsical the vagaries of fashion. This is demonstrated in many different ways. We have, in turn, imported at long prices, Shorthorn stock from America, and we are now busy buying up horses from France. The stud of the Count Lagrange in which the Emperor of the French was always supposed to have an interest, came to the hammer at Tattersall's, when the highest price we believe ever given for a stallion was obtained for Gladiateur, a French bred horse but a brilliant performer in this country; and there is something pertinent to the theme we are touching on in this purchase. Some two or three years back it was declared that the thorough-bred yearling sales had seen their best day; that, with the decline of two or three young noblemen would follow a decline in the value of young stock; and, in the face of this, Mr. Blenkiron, who has just bought Gladiateur for 5,800 guineas, has seldom known a better average for his yearlings than in 1870, if ever, indeed, he had sold so many so well. But the trade stops here; as with Mr. Booth or Major Gunter, nothing goes down with your racing man but Middle Park or Hampton Court; and elsewhere thorough-bred stock has been fairly given

away. Nay, often enough during the past summer, lot after lot, like a Shropshire or an Oxford later on, has been sent back without a bidding. But then, like Major Gunter, Mr. Blenkirton has laid the foundation of his stud with a lavish hand. In truth, if no one obtains higher, no one gives higher prices; and he is continually buying. A dearer bargain, so far, than Gladiateur was perhaps ever known. As utterly untried at the stud he could not, in reason, be appraised at half the money; for it by no means follows that the best race-horses turn out the best stallions; while he is faded in his appearance, having scarcely laid on any flesh since he was put out of

work—a not altogether wholesome sign. But the bystanders cheered the bidding; and whatever may come of it, a fact such as this will bring over many a customer hereafter, or so soon as peace shall be again restored to the Continent. An old saying maintains that the best articles are the cheapest, no matter what they cost; and Turner, the painter, always bought up his own pictures at an auction if they were going low, as he found in the end it paid him to do so. Let the moral of this commend it to any one who is looking out for a ram, a bull, or a horse. The money is sure to come back again some day or other.

SALE OF MR. C. R. SAUNDERS' HERD OF SHORTHORNS,

AT NUNWICK HALL, PENRITH, SEPT. 23, 1870.

BY MR. JOHN THORNTON.

It seems scarcely fifteen years ago since we sojourned in the north, saw Windsor win at the Royal at Carlisle, and then looked over Mr. R. W. Saunders' herd (father of the present man) previous to its sale on the Tuesday of the last week in July. Pedigrees were then not accounted of so much fashion as now, although a roan six-year-old Gwynne cow did make 70 gs., and went to Holker Hall; while the top price of the day, 150 gs., was given for the white Filigree, grand-daughter of Richard Booth's Fame, strangely enough by Mr. Alexander for Kentucky. Abraham Parker (9856) had reigned supreme in the herd after his victory in the Northern show grounds—the Edgar of the present day—and left behind him a number of whites and light roans. Pearls, too, were thought more of than now, and we remember a white cow making 60 gs. from Mr. Cartwright, of Northamptonshire—the Oliver of the period—and her white calf 50 gs. by a local man. Then, as now, there were a lot of aged bulls going at a trifle over butcher's price, Sir Harry Gwynne (12080) to Scotland for 30 gs., and Sir Charles (12075) secured for the district at 45 gs.

We found the ring pitched on the same little knoll, opposite the triangular roof of the bull houses, and encircled with the trees, which had thickened in foliage with their years, but with this addition, that the ground was surrounded three parts round with a strong amphitheatre of seats four deep, giving the scene more the appearance of a Spanish bull fight than a peaceful bull sale. The day, bright, warm, and cheerful, spent among green fields of rich pastures and picturesque scenery, was a happy contrast to the previous one, when at the Penrith show we lounged through the cattle and watched the excitement of the multitude in their delight at the hurdle jumping. Many faces at the show were present in the pastures, where the cows and heifers were more conveniently seen than in the byre, certainly with its calf stalls the most compact we have found in the north. The road was very full all the morning, and a waggonette and pair, with the Duke of Devonshire and Col. Towneley, Lord Skelmersdale's representatives, Messrs. Atherton, Baxter, and others broke down with its load. The cows showed to much advantage, and might really be termed a fine lot, especially old Waterloo 18th and her daughter the massive but doubtful Waterloo Duchess. Calves, milk, and a bad time had pulled the three-year-olds down; but we fancied Wallace had much to account for as well, as none of his produce would bear critical examination. The two-year-olds and yearlings were as pretty as paint, and in that happy condition of flesh, fat enough to please, and lean enough to breed; good treatment, in the shape of meal and crushed cake seemed to agree

with them, as well as careful treatment by the burly George, whose figure was as round as the Edgar he has so frequently led out. Still they might have been fresher, especially the bulls. A covered rick barn made a capital place for the luncheon, at which Lord Kenlis, supported by Earl of Dummore, Lord Skelmersdale, Col. Kingseote, Sir Harry Vane, Captain Gandy, and Mr. J. P. Foster presided. The usual Royal toasts preceded Mr. Saunders, whose brief reply led to brevity in the remaining speeches, for no sooner had the first 180 lunched than a rush was made outside to refill, and altogether we heard 587 hungry mouths were filled. The massive Edgar, and his equal rotund and handsome son, Lord of Nunwick, were paraded in the amphitheatre after the first company had lunched, and Mr. Thornton at half-past one was at his post in the centre of the arena; but it was remarkable how slowly each lot was put up. "Twenty guineas" was some time coming, whilst the old twelve year Waterloo 18th, from Shethiu, a true-made Shorthorn, walked slowly round. Bid after bid came out chiefly from the local men, and a young exhibitor and neighbour, got her at 34 guineas. Jenny Deans, with her bad crops and fine rich quality, made but half the price she fetched from Mr. Spearman at Bushey in '62, but she left her grand hair and quality to all her descendants. This however, with a line of sound blood going back to Chas. Colling's Daisy, did not take the public fancy, as none of her tribe sold high. The dam of Edgar, young Emma, was a beautiful cow, with much elegance and the same grand quality, but her teeth were bad, and she lost her cud, so she was not offered. Lot 6 was the highest-priced cow at Brayton, in '67, when Mr. Chas. Saunders gave 125 gs. for her; she had deepened, but was not massive, although very elegant, while she soon ran up to 81 gs., and went to a friend who sat beside Mr. Fawcett. Lady Elvira from Countess Emma, granddam of Edgar, was really a beautiful cow, full of quality and substance, but with short, lumpy quarters; she went to Lord Dummore, who, like Mr. Foster of yore, seems to go in now more for heavy flesh and good animals than pedigree. The first Gwynne was not handsome, still her blood sold her, for two Cumberland men wrestled well from 30 to 71 gs. One of the grandest and most stylish lots was Waterloo Duchess; she has slipped once and never bred, and seemed altogether so doubtful that she made but a speculative price. Duchess Emma had a plain head, and was common coloured, notwithstanding Ninth Grand Duke, her sire; but Wild Eyes Duchess was for many the cow of the day. Different to what we generally find a Wild Eyes, she was immensely wide and round, with a long neck, pretty good shoulders,

and very good quarters, and full of Bates' style; as probably one of the best of the sort out. Lord Skelmersdale, Mr. Baxter, Atherton, and many were in, but finally Mr. Jacob Wilson and Lord Dunmore opposed, and, for a wonder, Scotch blood was beaten, and she was bought for Mr. Cochrane, of Canada, whose purse seems bottomless. Fleda's Farewell, also by Ninth Grand Duke and out of the 155 gs. Knightly Fleda, was a very handsome animal, and his lordship secured her at nearly half the price of the more fashionable Wild Eyes. The produce of Wallace seemed hairless and light fleshed, and in the next dozen lots, a couple of Waterloo cows with unfashionable crosses sold well, a white "Bates upon Knightley" better, as soon after the roan and almost pure Waterloo 36th entered. The biddings were very rapid, from 100 up to 300 in no time, and then Mr. Jacob Wilson and Mr. Oliver were in up to 450, after which Lord Kenlis bid and finally beat the Captain at 475 gs. The excitement of the company could be restrained no longer, cheers again and again burst out, especially as it was known the lot was to remain in the North. The next animal was the great lot of the sale, as her pure pedigree by Mr. Foster's Royal Cambridge—old Moss Rose's son—out of Mr. Bolden's Waterloo 31st, made her about the third best Waterloo in the kingdom; although not particularly a handsome red, and somewhat disfigured by a hip down. After the excitement of the last, the biddings were not so easily caught; but it seemed that Mr. Wilson and Mr. Oliver were again at it, with Lord Kenlis to the rescue, for at 470 Mr. Oliver gave 500, and the glass ran finally. Once more the company cheered, and the place presented a wonderful sight. Not only was the raised platform crowded, but the people climbed upon the roof of the bull-houses, even to the pinnacle, and even the branches of the trees all around were filled. It was considered that fully 1,500 to 2,000 were then present. The two succeeding lots went cheap enough; but when the yellow red, own sister to Waterloo 36th, entered, the audience was as quiet as a church congregation, every bid rang out, from a hundred upwards, and Lord Skelmersdale opposed: though Mr. Wilson got in at 300, and she joins the Wild Eyes cow for Canada. An exceedingly pretty roan heifer by the same sire, and out of lot 1, was secured by his Lordship at half the price. False Fanny, a very pretty roan hairy daughter of Edgar's out of Ellen, a Knightley cow, drew forth many bids, and finally Mr. Foster and Mr. Hay settled down until the latter was beaten. Elfin Deans had rich hair, colour, and a fine quality of flesh, and she went cheap enough to Mr. Dalzell; Mr. Hay securing the next lot of the same tribe, only a lighter roan, for New Zealand. Then came another daughter of Edgar's out of the pure Waterloo 31st. Mr. Graham began the contest early, and at last he and Lord Kenlis were the only bidders, when the Commoner won at the high sum of 360 gs. There was great substance and plenty of hair in this one-year-old, and Mr. Graham got two substantial ones as the nucleus of a new herd at Tamscroft, over Darwin. The calves galloped round the ring to the delight of the company. Fille d'Edgar, own sister to False Fanny, was equally as pretty, and Mr. Foster secured her also. The most attractively-bred calf was from the Wild Eyes cow; although a nice one and of a good colour, she seemed rather flat in the ribs, but Lord Dunmore at last purchased her in lieu of her dam, and Mr. Fawcett's friend took the pretty Princess Alexandra's calf at 53 gs., though her sister, Princess Beatrice by Kildonan, was no taking lot, what with her black nose. The other calves sold well.

Edgar walked gaily round the ring; and it would be difficult to find a fresher looking bull, or more active at his age, rising eight years, even fleshed with grand hind

quarters and splendid hocks and hind legs. But the public were slow to bid at him, until a butcher ventured 50 gs.; then Mr. Brockbank bid, and Mr. Thomson took it up, until a hundred was called; a nod from Mr. Brockbank was as good as five, "ten" said Mr. Thompson, and the glass runs, "going at 110 and—gone!" Lord of Nunwich, his son and from a pure Waterloo dam, was next brought in, and was very much like his sire, with perhaps a trifle more elegance. Mr. Messenger, who was bidding for Australia, went well along up to 200 gs., and then stopped, so Mr. Wilson got him for his own and his uncle's use at Shotley Hall. Earl of Eglinton, by the Duke of Devonshire's Tenth Grand Duke, although a good sire, was bad girthed and short-quartered, with his tail close in his back, so that Mr. Brockbank soon secured him, and Mr. Lambert, who had hired Wild Boy, a level fine bull, bought him outright at 50gs., notwithstanding his lameness. General Williams was impotent, and Waterloo Boy, who had served most of the heifers, although narrow-backed, sold well at 89 gs. A Company of tenant farmers had formed to buy one of the best bulls, so they went in for Edgar's brother, but dropped off at 5 gs. over 30 gs. each man, and he goes to Australia cheap enough at 130 gs. This was by far the best bull of the sale. The competition was very slow and heavy for the calves, still they averaged well, and biddings were good when once started, though the long time that elapsed in putting them up sadly hindered the sale. A more pleasant one we rarely remember, bright and cheerful; while, compared with the last, the result is astonishing. No large herd since 1867 has made so good an average, and it is nearly £10 above the great return for a smaller herd sold in the spring at Edebridge, Kent, and hitherto the highest this year. Subjoined are the prices.

COWS AND HEIFERS.

- Waterloo 18th, roan, calved April 23, 1858, by Bosquet (14183), dam Waterloo 15th by The Hero (10934).—J. Lamb, Cumberland, 34 gs.
- Ellen, roan, calved May 3, 1858, by Prince of Glo'ster (13517), dam Fleda by Grey Friar (9172).—A. Metcalfe, Westmoreland, 52 gs.
- Jenny Deans, roan, calved March 9, 1859, by Great Mogul (14651), dam Young Daisy by Zedig (8796).—J. Lamb, 42 gs.
- Young Emma, roan, calved January 5, 1860, by MacTurk (14872), dam Countess Emma by Heir-at-Law (13005).—Unit to offer.
- Lady Emma Oxford, red and white, calved April 7, 1862, by Eighth Duke of Oxford (15939), dam Countess Emma by Heir-at-Law (13005).—W. Parker, Penrith, 45 gs.
- Princess Alexandra, roan, calved March 10, 1863, by Eighth Duke of Oxford (15939), dam Catchit by Earl of Dublin (10178).—Malcolm, Carlisle, 81 gs.
- Lady Elvira, roan, calved June 6, 1863, by Lord Oxford (20214), dam Countess Emma by Heir-at-Law (13005).—Earl of Dunmore, 84 gs.
- Flower, roan, calved March 16, 1864, by British Prince (19354), dam Fleda by Grey Friar (9172).—J. and J. Gaitskill, Whitehaven, 54 gs. And white cow calf by Earl of Eglinton.—T. Dalzell, Whitehaven, 19 gs.
- Clara Gwynne, white, calved April 17, 1864, by Prince Patrick (18633), dam Nelly Gwynne by Old Rowley (15020).—J. Thorn, Cumberland, 71 gs.
- Waterloo Duchess, roan, calved June 7, 1864, by Ninth Grand Duke (19879), dam Waterloo 18th by Bosquet (14183).—Rev. P. Graham, Lancashire, 55 gs.
- Duchess Emma, roan, calved December 3, 1864, by Ninth Grand Duke (19879), dam Countess Emma by Heir-at-Law (13005).—W. Sayer, Penrith, 51 gs.
- Wild Eyes Duchess, red, calved February 3, 1865, by Ninth Grand Duke (19879), dam Wild Eyes 19th by Lablache (16353).—M. H. Cochrane, Canada, 275 gs.
- Fleda's Farewell, roan, calved March 20, 1865, by Ninth Grand Duke (19879), dam Fleda by Grey Friar (9172).—Earl of Dunmore, 140 gs.

Effy Deans, white, calved January 18, 1866, by Edgar (19680), dam Jenny Deans by Great Mogul (14651).—T. H. Parker, Carlisle, 50 gs.

Lady Fanny Oxford, red and white, calved February 23, 1866, by Valiant Duke (23111), dam Lady Emma Oxford by 8th Duke of Oxford (15939).—W. Thompson, Tebay Westmoreland, 50 gs.

Pearl Brooch, roan, calved February 27, 1867, by Wallace (23166), dam Pearl Powder by Ninth Grand Duke (19579).—Dixon, Northumberland, 50 gs.

Fair Fanny, roan, calved March 7, 1867, by Wallace (23166), dam Ellen by Prince of Gloucester (13517).—J. Morton, Kendal, 55 gs.

Waterloo 22nd, roan, calved April 2, 1867, by Kildonan (20051), dam Waterloo 20th by Cherry Duke 2nd (14265).—Dixon, Northumberland, 71 gs.

Annie Gwynne, roan, calved March 30, 1867, by Wallace (23166), dam Clara Gwynne by Prince Patrick (18633).—G. H. Head, Carlisle, 67 gs.

Waterloo 34th, red roan, calved May 10, 1867, by Wallace (23166), dam Waterloo 18th by Bosquet (14183).—B. Baxter, Yorkshire, 82 gs.

Indian Squaw, red and a little white, calved October 7, 1867, by Wallace (23166), dam Imagine by Hayman (16245).—Col. Rigg, Penrith, 36 gs.; and her red and white bull calf by Waterloo Boy.—J. Nicholson, Penrith, 16 gs.

Farewell's White Rose, white, calved March 8, 1868, by Earl of Eglinton (23832), dam Fleda's Farewell lot 13 by 9th Grand Duke (19579).—Lord Skelmersdale, 100 gs.

Princess Beatrice, white, calved March 24, 1868, by Kildonan (20051), dam Princess Alexandra by 8th Duke of Oxford (15939).—R. Hetherington, Cumberland, 34 gs.

Fickle Fanny, red, calved March 24, 1868, by Edgar (19680), dam Ellen by Prince of Gloucester (13517).—R. Jefferson, Cumberland, 51 gs.

Lady Eglinton, red and white, calved April 4, 1868, by Earl of Eglinton (23832), dam Lady Emma Oxford by 8th Duke of Oxford (15939).—G. M. Tracy, Kent, 70 gs.

Waterloo 39th, red and a little white, calved April 16, 1868, by Waterloo Chief (23184), dam Waterloo 20th by Cherry Duke 2nd (14265).—Sir W. Lawson, Cumberland, 81 gs.

Waterloo 35th, roan, calved April 30, 1868, by Earl of Eglinton (23832), dam Waterloo 32nd by Ninth Grand Duke (19579).—Lord Kenlis, Westmoreland, 475 gs.

Waterloo 37th, red, calved September 14, 1868, by Royal Cambridge (25009), dam Waterloo 31st by Third Grand Duke (16182).—R. E. Oliver, Sholebroke, 500 gs.

Pearl Necklace, roan, calved March 6, 1869, by Wild Boy (25447), dam Pearl Powder by Ninth Grand Duke (19579).—Col. Sanderson, Penrith, 47 gs.

Lady Eleonora, red, calved March 15, 1869, by Wild Boy (25447), dam Lady Elvira by Lord Oxford (20214).—J. White, Australia, 66 gs.

Waterloo 38th, red, calved March 12, 1869, by Earl of Eglinton (23832), dam Waterloo 32nd by Ninth Grand Duke (19579).—M. H. Cochrane, Canada, 300 gs.

Waterloo 39th, roan, calved March 18, 1869, by Earl of Eglinton (23832), dam Waterloo 18th by Bosquet (14183).—Lord Skelmersdale, 150 gs.

Amy Gwynne, white, calved March 26, 1869, by Earl of Eglinton (23832), dam Clara Gwynne by Prince Patrick (18633).—J. Malcolm, 56 gs.

False Fanny, roan, calved March 27, 1869, by Edgar (19680), dam Ellen by Prince of Gloucester (13517).—J. P. Foster, Killhow, 40 gs.

Elfin Deans, roan, calved April 24, 1869, by Earl of Eglinton (23832), dam Effy Deans by Edgar (19680).—T. Dalzell, Cumberland, 65 gs.

Eddie Deans, roan, calved October 31, 1869, by Earl of Eglinton (23832), dam Jenny Deans by Great Mogul (14651).—T. O. Hay, New Zealand, 61 gs.

Waterloo 40th, white, calved September 17, 1869, by Edgar (19680), dam Waterloo 31st by Third Grand Duke (16182).—Rev. P. Graham, Lancashire, 360 gs.

Mary Gwynne, red and white, calved February 28, 1870, by Wild Boy (25447), dam Clara Gwynne by Prince Patrick (18633).—T. O. Hay, New Zealand, 56 gs.

Lady Emma, red, calved March 16, 1870, by Wild Boy (25447), dam Lady Elvira by Lord Oxford (20214).—Earl of Dunmore, 45 gs.

Fille d'Edgar, roan, calved March 8, 1870, by Edgar (19680), dam Ellen by Prince of Gloucester (13517).—J. P. Foster, 86 gs.

Wild Eyes Duchess 2nd, red and white, calved March 16, 1870, by Earl of Eglinton (23832), dam Wild Eyes Duchess by 9th Grand Duke (19579).—Earl of Dunmore, 120 gs.

Emma's First, red and white, calved March 17, 1870, by Game Boy (26215), dam Young Emma by Mac Turk (14872).—R. Hetherington, 53 gs.

Lady of Nunwick, red, calved March 18, 1870, by Earl of Eglinton (23832), dam Lady Emma Oxford by 8th Duke of Oxford (15939).—W. Thompson, Tebay, 45 gs.

Princess Victoria, roan, calved March 29, 1870, by Earl of Eglinton (23832), dam Princess Alexandra lot 6 by 8th Duke of Oxford (15939).—J. Malcolm, Carlisle, 53 gs.

Tufty Deans, white, calved April 3, 1870, by Earl of Eglinton (23832), dam Effy Deans lot 14 by Edgar (19680).—C. W. Wilson, Kendal, 30 gs.

Duchess Emma 2nd, roan, calved April 3, 1870, by Gameboy (26215), dam Duchess Emma lot 11 by 9th Grand Duke (19579).—W. Thompson, Penrith, 41 gs.

BULLS.

Edgar (19680), roan, calved December 22, 1862, by Prince Patrick (18633), dam Young Emma lot 4 by Mac Turk (14872).—H. Thompson, Penrith, 110 gs.

Earl of Eglinton (23832), roan, calved April 10, 1866, by Tenth Grand Duke (21848), dam Lady Elvira lot 7, by Lord Oxford (20214).—R. B. Bruckbank, Carlisle, 61 gs.

Wild Boy (25447), red and white, calved April 20, 1866, by Edgar (19680), dam Wild Eyes 19th by Lahlache (16353).—M. Lambert, Northumberland, 50 gs.

Lord of Nunwick (26702), roan, calved September 16, 1867, by Edgar (19680), dam Waterloo 31st by 3rd Grand Duke (16182).—Jacob Wilson, Northumberland, 295 gs.

General Williams (24028), roan, calved September 3, 1866, by Wallace (23166), dam Dora Gwynne by Prince Patrick (18633).—J. Collins, Penrith, 35 gs.

Waterloo B y (27762), red, calved December 9, 1868, by Earl of Eglinton (23832), dam Waterloo 21st by Cherry Duke 2nd (14265).—Sir H. Vane, Bart., 89 gs.

Great Salkeld, red and white, calved March 17, 1869, by Wild Boy (25447), dam Lady Emma Oxford lot 5, by 8th Duke of Oxford (15939).—Rev. O. James, Penrith, 32 gs.

Farewell's Eglinton, roan, calved March 18, 1869, by Earl of Eglinton (23832), dam Fleda's Farewell by 9th Grand Duke (19579).—Captain Thompson, Carlisle, 55 gs.

Prince James, roan, calved March 24, 1869, by Earl of Eglinton (23832), dam Princess Alexandra by 8th Duke of Oxford (15939).—J. Nicholson, Penrith, 40 gs.

Salkeld Dykes, red and little white, calved March 28, 1869, by Wild Boy (25447), dam Young Emma by Mac Turk (14872).—J. White, Australia, 130 gs.

Falstaff, red and white, calved October 20, 1869, by Wild Boy (25447), dam Flower by British Prince (19354).—Parker, Bootle, 39 gs.

Eden Lacey, red, calved March 13, 1870, by Lord of Nunwick (26702), dam Fair Fanny by Wallace (23166).—J. Lancaster, Penrith, 21 gs.

Game Laws, roan, calved April 8, 1870, by Lord of Nunwick (26702), dam Annie Gwynne by Wallace (23166).—T. Bowstead, Eden Hall, 34 gs.

Fitz-Edgar, roan, calved March 5, 1870, by Edgar (19680), dam Fleda's Farewell by 9th Grand Duke (19579).—G. H. Head, 51 gs.

Pearl Seeker, red and white, calved March 7, 1870, got by Game Boy (26215), dam Pearl Brooch by Wallace (23166).—Scott, 25 gs.

Waterloo Commander, roan, calved March 16, 1870, by Game Boy (26215), dam Waterloo 22nd by Kildonan (20051).—A. Graham, 35 gs.

SUMMARY.

45 cows	£106 10s. 4d.	£4,793 5s.
16 bulls	£66 8s. 3d.	£1,062 12s.

61 averaged £96. £5,855 17s.

In 1855, 38 cows averaged £44 18s., 18 bulls £33 15s. 6d., and the general average for 56 head was £41 6s. 6d., amounting to £2,314 4s.

THE NEWBOURN HALL SUFFOLK SALE.

On Wednesday, Sept. 21, Mr. Wolton's Suffolk horses were sold by auction by Messrs. Biddell and Blencowe, and Mr. Bond (a joint firm on this occasion), and the sale of Suffolk cows followed on the next day. Of late years, no one has done more to keep up the celebrity which Messrs. Crisp, Catlin, and Barthropp gave the Suffolk horse than Mr. Samuel Wolton, of Newbourn Hall. Indeed, we may safely say, with animals of their own breeding not one of these noted exhibitors has been more successful than Mr. Wolton, for of all the prizes which have been placed to his credit scarcely one has been won by an animal not bred at Newbourn Hall—a fact reflecting no little credit to the judgment displayed, and adding a pleasant flavour of satisfaction not always attending success.

In our chronicles of noted Sales, it more often falls to our task to append an obituary sketch of the late proprietor. On the present occasion we omit the notice—for the excellent reason that the good old man is still in the flesh, hale and hearty, and if one may judge by a pleasant word, a quiet mind and a look of contentment, we may add, happy also. But Mr. Wolton is a very old man—*ninety* next March; and in the zenith of his fame as a breeder, with sons in the prime of manhood to carry on what he has established, he wisely retires from business. The history of the Newbourn Hall horse-stock dates a long way back—according to the opening address of the officiating auctioneer, Mr. William Biddell, something like a hundred years. Points of history, dates, and figures culled from introductory speeches at agricultural sales are at best put forth as subject to correction. In the present case we believe the fact to be rather under, than over stated, for in our sketch of the rise and progress of the Newbourn horses we may go back almost to the middle of the last century. In those days there lived at the Hall a certain Mr. Higham, who bred and patronised, as every farmer in the district did at that time, pure Suffolk horses. In course of time there fell into the hands of a young man in the neighbourhood, a Mr. Wolton, one of Mr. Higham's daughters, and a few years later all the old man's horses also—the lady by marriage, the animals by valuation. These were the parental ancestors of the present occupier of Newbourn Hall. In 1781 Mr. Higham died, the son-in-law took the farm, and that same year was borne that honourable specimen of an Englishman known by the present generation of Suffolk farmers as “old Sam Wolton of Newbourn Hall.” The auctioneer told his audience that Mr. Wolton's father was “great in horses,” and if you ask Mr. Wolton what old Higham's were said to be like, he will tell you “*As good as mine*”—a character those who were present on Wednesday may regard as rather a high one, in as much as we learn that in the said valuation the first four were put down at £100 the team; but price is not always a correct measure of merit, and if their shoulders were a bit short and straight, their crests low, and their feet flat, they were, no doubt, good in their day. The auctioneer's remark rests on a more tangible proof. That John Wolton was “great in horses” may be gathered from the fact that when the old man died, and the present Mr. Wolton took the farm, he bid 80 gs. each for the first four led into the ring, was beaten off for all, and had to start his stud with other animals from the same sale, at £50 to £60 a-piece. This was in 1812, a time when farmers were flush of funds and coffers that overflowed with guineas; the produce of £7 a quarter

wheat and half-a-crown a pound wool being kept in bounds by late hours, port wine, and much company. That money was plentiful, or Suffolk horses in great repute, one other or both, may be gathered from the prices recorded at this and other sales, at one of which—Sir Robert Harland's, at Bourne Hall, Wherstead—the four best mares made 440 gs., and the foals 40 each. From this time Mr. Wolton has scrupulously kept to the pure stock. “If you have a breed, *have a breed*,” is one of his standing maxims, and no one has kept to this more persistently. It was not, however, till about twenty years back that Mr. Wolton began to show in public. His first essay was for the sum of £3, for which a certain grand old gelding, Proctor by name, walked some twelve miles to Wick market, met two on the same errand, and brought home the coveted Red Rosette, a nest egg for the stable, not much in itself, but the fore-runner to a host of good things, which in the aggregate must have amounted to a handsome sum. This was not all. Side by side with Proctor stood one of old Mr. Catlin's entries, beaten hollow; and in proportion as the joy of Butley over a victory, so was the depression of defeat; for at the dinner which followed, Newbourn vexed Butley in no measured terms in chaff and toast to the last glass in the bottle. In 1850 the county show was at Ipswich, held then in September, and here we find Mr. Wolton first with a foal as big as a yearling, and good looking to boot, as withal pronounced by the judges as the best of fifteen shown. A son of Catlin's Duke out of Smiler, he was for years afterwards travelled in West Suffolk, to the incalculable benefit of the breed in that district. In 1851, at Woodbridge, Proctor turns up again, placing another “three pounds” to Newbourn. Doughty by Catlin's old Boxer adds £3 more to the same account, and her foal gets first prize, and better still, is there and then sold to the Duke of Grafton for 40 gs. In 1852, Proctor walks another 30 miles or so for the £3 at Framlingham, and gets it too, while another of the Newbourn mares takes second prize in a class of ten. At this time Mr. Wolton's name as a breeder was becoming pretty widely known. His stable was filled with good mares, and his pastures were dotted over with as promising a lot of young things as one would wish to see; but a sorry year was 1853 for the Newbourn Hall horses. To raise a stable of good animals of one's own breeding is a work of patience, of many years, often of a lifetime. One mare won't breed, another slips her foal, a third never breeds a filly, and the filly foal of a fourth dies at a week old. Then, again, what trouble and disappointment come at a later stage! Unsoundness, accident, and a hundred unforeseen difficulties come between the breeder and a team of good animals of his own rearing, and in many a case what seems a promising start ends in utter failure. From 1812 to 1853—more than forty years—Mr. Wolton had patiently stuck to his breed of Suffolk horses, and at that time sure enough he had a stable any man might be proud to own. A man's flock is liable to lameness, to the rot, to fearful losses in the lambing season; a herd of the best Shorthorns may be destroyed in a few weeks by pleuro-pneumonia, rinderpest, or what not, and the best breed of pigs may all go wrong in a few months; but in a general way a stable of horses is subject to no such ravages. Still there are exceptions to every rule, and of all the visitations to which flock, herd, or stud was ever subject, nothing came with such destructive devastation as an unknown,

ineurable, mysterious malady brought upon Mr. Wolton's horses in the year 1853. In that year in a few months he flayed, young and old, *fourteen!* In *one week* he lost six such mares as it takes a life time to breed. The best veterinary advice was called in, the most scientific in the profession came and gave advice; but the most assiduous attention on the living, the strictest examination of the dead failed to arrest this frightful disease. Such a calamity would have damped the spirit and reduced to despair many a man who could bear a good deal, too. But Mr. Wolton is not one given to despair; he doesn't look as if he were. Out of the remnant of that splendid collection he set to and raised something better than ever; and although for some years after this occurrence his name was scantily seen in the catalogues of the day, he soon made a mark in the prize-list that he has never ceased to maintain. Using the best blood of the day and occasionally infusing a fresh strain through a mare from another stable, he made amends by his perseverance for the injury Fortune, in one of her sternest modes, inflicted. The "Brightwell Hall mare," a purchase at a long figure many years ago, was a prolific source of good animals. This was a wide, short-legged, active mare, of no very great size, but of true Suffolk stamp, though with a great deal of white about her legs, a point which at all times was but a venial sin in the Hall stable; for when Old Warrior was bought from Mr. Crisp, to infuse a fresh strain of blood about twelve years ago, he startled the Newbourn horsemen not a little by making his appearance in one if not two white stockings. With this animal he was particularly fortunate, the white leg made but little mark on the well-bred whole-colours he was put to, and his wide-fronted, thick-backed progeny gave great satisfaction both at Newbourn and Kesgrave, where he was also extensively used by Mr. Wolton's son. The white stockings did, however, occasionally make their appearance, and the thick-short neck and faulty hind legs were there as well. Catlin's old Duke left the grand old prize winner, Moggy, as his best representative, and the cross with Barthropp's Hero on to the Brightwell Hall blood resulted in a succession of winners. Abbey, a two years old mare, bought at Mr. Catlin's sale for 125 gs., paid her way as the foreigners took one of her colts at a long figure, and another of her progeny, a three years old Warrior filly, made 76 guineas at the sale on Wednesday. The stallion Monarch, used lately in the place of his sire Warrior, was out of the old Moggy mare, and has been in the best place at several competitions in the county and neighbouring shows. His stock are now two years old, and what is ever a great point in a sire they are all of a stamp, and that not a very bad one. He is sire of Mr. Wilson's two years old, which took all the honours at Walden and Harleston this year. As a general rule they have a little bit too much daylight below—a fault Monarch himself is not quite free of; but both sire and progeny show plenty of quality, size, and good colour. Neither Emperor (Chester nor Harwich) nor Canterbury Pilgrim seemed to have been used, though the old Moggy was sent to Mr. Biddell's Abbot, a son of the Pilgrim, and a right good colt was the result, albeit he inherits the colour of the old mare—her worst fault, and perhaps his own too.

The stable as submitted to the public on Wednesday consisted of 48 head, including 8 stallions, 3 mares with foals at foot, 16 mares in foal, 4 geldings, and 5 fillies, the whole of which were open to the purchaser who was inclined to give most money. There was one exception—the old Moggy mare was to be bought in at any price, and presented to the son who takes the farm. The whole of the animals offered were in beautiful condition, but not over-fat; and, on looking round,

we came to the conclusion that they were a particularly sound collection of farm-horses. Several were bought by the sons; but they were buying as others were buying, and as the auctioneer announced the size of Mr. Wolton's family precluded his favouring any branch of it by allowing them to pick the animals over, the public seemed well satisfied to enter into competition with them. To enumerate the company by name we should have to give the entire list of all those who have come before the public in the county of Suffolk as breeders, buyers, or exhibitors of horses—few, indeed, connected with the trade were absent; but of foreign commissioners there was a sad want. Indeed the competition was confined to one or two agents of landlords, one or two large proprietors who were there in person, and tenant-farmers who bought as something more than fancy investments, though the prices they gave approached to fancy prices. The highest prices for the mares ran thus: 105, 105, 100, 90, 76 guineas, or just £100 each for the five best mares; the best ten averaging a little under 80 each, and the whole stud, including stallions, foals, &c., making an average of rather over £51 each.

Colonel Wilson, a West Suffolk landed proprietor, who is forming a stud with great judgment, bought three: Lot 112, by Warrior, out of the Abbey mare, a thick-set, short necked three-year-old—a very good mare, 76 gs.; Lot 130, an eleven years old mare by Barthropp's Hero, from the Brightwell Hall stock, a winner of several prizes, 50 gs.; and Lot 143, a two-year-old filly by Warrior, out of Leicester Violet by Canterbury Pilgrim, 90 gs. Lot 111, a six-years-old mare in foal to Monarch, an animal whose action round the ring was a little feeling, was knocked down to Mr. Cordy for 100 gs. A Mr. Collins secured two very splendid mares, No. 113, a winner at Oxford in July, at 105 gs., three years old, by Warrior and in foal to Magnum-Bonum; and 114, a six-years-old mare, by Warrior, out of the Abbey mare, a frequent winner, at the same price. Lot 115 made 57gs., the buyer being Mr. Capon—perhaps the best bargain of day. Mr. Horace Wolton secured the next lot at 60 gs., another Warrior, and winner of two first and one second prizes. Mr. Samuel Wolton, jun., bought the foal from the old Moggy mare commended at the Sudbury show, a well-grown promising colt, for 35 gs. He also took Monarch, the six-years-old stallion, for 90 gs., as well as Heir-Apparent, one of his sons, a year old, at 94 gs., a very good colt which we shall no doubt hear of again. Peer of the Realm, a son of Biddell's Abbot and the old Moggy mare, a large dark-coloured two-years-old colt, shown several times this year, was sold to Mr. Emson for 66 gs., perhaps the cheapest stallion of the day. Altogether the sale might be considered satisfactory, but the absence of the foreign buyers reduced the average considerably; and so far Mr. Wolton was very unfortunate. The French and Germans have always been large purchasers of Suffolk horses, but this year they are otherwise engaged, or only want animals for guns or starving garrisons—and Wednesday's prices were too high for either. We must here remark that neither vendors nor auctioneers bestowed any trouble on pedigree tables, as few of the mares had anything given beyond sire and dam, and not always as much. Surely, after such years of trouble, the buyers should have been furnished with the lines of blood the purchases embraced!

The sale of blood red cattle was on Thursday. Mr. Wolton's herd is justly-celebrated, and really the display they made was quite creditable. The prices ranged up to 35 gs., the best being bought by Mr. Taylor, of Harleston, in Norfolk. Mr. Wolton's sons, Mr. Clarke and Mr. Stubbs—all gentlemen in the eastern district. Mr. King, from Ashley Hall, Cambridge, Mr. Nockwood, Braintree, Mr. Collins, and Mr. Loft also secured several

lots. The ten highest prices averaged about £33 each; but, as with the horses, so with the herd—pedigree seemed to be a matter either totally disregarded or not deemed worth the trouble of printing.

Mr. Wolton is succeeded at Newbourne by his younger son Horace, on whom of late years the management of the stud, both at home and in the show-field, has entirely devolved, and the herd was almost of his own selection. He has secured enough both of horses and red cattle to start well on his own account, and all wish him

God speed in his endeavours to follow in the footsteps of his father. Mr. Samuel Wolton, the elder son, gives up the Kesgrave farm to take the large occupation of Butley Abbey, from whence the late Mr. Crisp and Mr. Catlin before him sent forth their renowned Suffolks to victory. He takes with him from Kesgrave a fine stud of mares, and with his selections from his father's stable should, and we doubt not will, do great things in the showyard, and keep up the character Butley Abbey has acquired through his predecessors.

IXWORTH FARMERS' CLUB.

At the first meeting for the season, Mr. W. Maufield in the chair.

Mr. W. MATTHEW, Kuettishall, read a paper on "The growth of beet-root and sainfoin in connection with the four-course system of farming," as follows: I thought I could not do better than choose the subject I have done, and among the many reasons for doing so is that experience should teach us knowledge, and now that we have had the experience of three dry summers, with a great deal of sun, I feel it would be a good thing for us to put together our thoughts upon the matter, and decide what is the best thing to be done to meet such wants as we have felt in such seasons as these, and try to hit upon some plan that will leave us less dependent in future upon our artificial grasses, clovers, &c., and tend to secure a good plant of beet-root, for upon these two crops for spring and summer keep, I think we who farm light and mixed soils are now very dependent. Another reason I might give is, I think, we as farmers require a system that will render our farms more self-supporting, or in other words, lessen some of those heavy items of expenditure for cake, artificial manure, labour, &c., more particularly as the sources from which we draw these supplies are beginning to fail; for instance, guano £5 per ton more than it was at one time, cake from £2 to £3 per ton more than we used to get it at, and the quality of neither any the better for the extra price. Another reason I could give is, that we should do well to ask ourselves. Is there no plan by which we can increase the quantity of our stock upon our farms without materially diminishing the quantity of corn? I will thus divide my subject into three heads: 1st—These dry summers, what are our wants? how best supplied? 2nd—The different sources of manure or its equivalent that we have at hand upon our farms. 3rd—Increasing our supply of green food. Any suggestion to be of practical value to the farmers of Suffolk must be made to fit in with the four-course system, for nearly all of us are compelled by our agreement to farm according to its rule, and this, I must say, I think one of the evils of farming—for when a man hires a farm, his landlord in a great measure farms it for him—this must necessarily check that spirit of enterprise, without which no business can succeed, nor can anything new be tried and brought out; but but I do not wish it to be thought I am condemning the four-course system, it has stood the test of ages, and when other system have failed it has been found to succeed; but I think the failures of those who have tried to depart from it have arisen, not so much because it would not answer ever to do so, but because they left a system and took to farming without any system at all. 1st.—Then, these dry summers, what are our wants? How best supplied? Taking a retrospective view, the first difficulty we had to encounter in the spring of 1863 was the difficulty of obtaining a plant of beet-root. The months of April, May, and June being so hot and dry, that none of us could get a plant but those who were fortunate to have their land cultivated in the Autumn, and the seed drilled by the middle of April. The next difficulty of that year was, what were we to give our stock, and how to fill our stackyard. From want of rain the crop of clover was very short, also the mixed grasses. The only fields that did well were those planted with sainfoin. Then the season ended by our discovering immediately after harvest that all our young layers were dead, and we must either have gone without sheep the next season or been at the expense of drilling them over

again. I will now describe what I tried myself, and the results. Upon one field of 40 acres I drilled 2 pecks per acre of common rye-grass, 2 pecks per acre of Italian rye-grass, $\frac{1}{2}$ peck of trefoil, $\frac{1}{4}$ peck of white clover, $\frac{1}{4}$ peck of rib grass. The result of this was, it came up well just after the first shower, but the drought and sun again set in, and the trefoil and suckling all died off, but the rye-grass and rib-grass kept alive, and although it produced but little food in the early part of the following spring, it made good feed in the summer, and my sheep and lambs settled upon it better than any other field. I also tried a mixture of Italian grass, rib grass, and tares: 1 bushel of winter tares per acre, 3 pecks of Italian grass per acre, $\frac{1}{2}$ peck rib grass per acre. This mixture did well, and produced a capital piece of early feed with the tares and grass, and the rib grass and rye grass made some after-feed, and produced a good flag for the succeeding crop of wheat. I cannot say I prefer rye grass as a preparation for wheat, but upon our light lands it is better than nothing at all, for upon this field I had not sufficient rye grass to finish the field by three acres. I therefore drilled it with the tares without the rye grass, and the wheat crop was this year at least one coomb per acre more where the rye grass was than where there was nothing at all. On another field I sowed one peck per acre of trifolium; this I mowed for hay, had a far crop, and my horses were very fond of the stover, but the wheat this year was very light after it. The best crop again on my farm was the sainfoin; indeed the only crop that did not suffer from the drought. Looking back to the year 1869, the plant of clover and young seeds after harvest were so good that we all thought this summer there would be no lack of feed, but what has been the case? The drought and sun have again been too severe for our layers of one year's growth, and keep for stock has not been so abundant as it was last year, with only the half plant of layers that were left us. Tares, also, were a partial crop, and we have again had the same difficulty in obtaining a plant of beet root, and only in those fields that had the autumn tillage is there a plant. But the sainfoins of two and three years old have again done well, therefore proving that plant able to stand the severest drought, and now we have again lost our young layers, all but the sainfoin. I have again drilled over 60 acres as follows: Half bushel per acre of Schroederii brome grass, half bushel of Italian peas per acre, quarter peck rib grass per acre, 3 pecks of red suckling. I have not used any trefoil or white clover, my previous experience being that it was useless. I also intend drilling this week one field with tares. 1 bushel per acre, and $\frac{3}{4}$ bushel Italian grass. And as I have now 70 acres of sainfoin, of very good plant, I feel less dependent upon the success of this late feeding than I should otherwise have done; and I will now ask you to follow me as I describe my system of growing beetroot and sainfoin upon my farm; and I hope you will give me your opinion of its merits, and offer such remarks as may strike you as to its general adaptation to this neighbourhood. I will suppose them, in the first place, I have 500 acres of arable land in my occupation, and I think it right to grow 20 acres of beetroot in each year, the plan I pursue is, I take beetroot after barley—*i.e.*, not laying down 20 acres of the barley shift with small seeds. As soon as wheat sowing is completed, I plough in the barley stubble a good deep earth—say 9 inches; then as soon as the land has been acted upon by the weather, I harrow and ridge up, about the new year, or earlier if I can; then in March or April, as the

weather permits, I manure with—say 14 loads per acre of farmyard muck, $\frac{1}{4}$ of a ton per acre of rape cake, and 2 cwt. of salt, drilling the seed not later than the middle of April. This beetroot will be followed by wheat. In the succeeding spring I drill in the wheat sainfoin, rather over one coomb per acre; this sainfoin I intend to lay three years, to be succeeded by wheat, in course with the remainder of that shift, thus making the beetroot and sainfoin fit in with the four-course system. Perhaps some will say I am losing sight of one of the heads of my subject, in making use of such a heavy dressing of manure for beetroot; but I would go further, if rape cake could be bought at £5 per ton, I would use half a ton per acre, and taking into consideration that this field is to have no more manure for four years, I think you will say the dressing is not excessive. The course will be: 1st, Beetroot after barley, instead of layer; 2nd, Wheat after beetroot, in course; 3rd, Sainfoin, after wheat instead of turnips; 4th, Sainfoin, instead of barley; 5th, Sainfoin, instead of clover, &c.; 6th, Wheat after sainfoin, in course. I should, thereupon, have 20 acres in each year to lay down with sainfoin, and 20 acres of three-year-old sainfoin to come up for wheat in each year; and, if I succeeded in getting a plant of sainfoin, I should always have 60 acres of sainfoin, of three different ages, growing on my farm. Again, taking beetroot after barley, you save the autumn tillage of the land. The land after barley is in a very different state, and does not require so much labour to bring it into a good tilth as after wheat; the preparation for wheat being to get the land together as much as you can, the preparation for beetroot being to leave the land as light as you can. Again, taking beetroot after barley enables you to clean the land well before laying it down with sainfoin, which is to lay three years, and upon this will your success mainly depend; and, as practice is better than theory, I have succeeded in obtaining a full plant of beetroot during the last three years grown in this way. I have heard some say, "A penny earned is as good as a penny saved," but I am inclined to think that the penny saved is the best, inasmuch as the saving a penny incurs no risk, when the earning a penny must. And when the labour and seed question is tested in connection with this plan of growing beetroot and sainfoin with the ordinary four-course, you will find a great saving will be effected. What will then be the value of these crops upon this 120 acres of land so treated against 110 acres under the four-course? The next thing I should like to introduce for our consideration is the different sources of manure we have at hand upon our farms, or its equivalent: 1st, Comes the manure from stock; 2nd, Rest is equivalent to manure; 3rd, Shade is ditto, ditto; 4th, Tillage to heavy land is ditto; 5th, Succession of crops is ditto. We all of us know that stock can be kept upon our farms without limit, if we put our hands in our pockets for purchased food—but will it pay? Yes, half way. One-half from the pocket, one-half from the green crops of the farm; therefore if we want to increase our manure supply from this source, we must increase our green crops to make it profitable. Rest to land is equivalent to manure. When land is laid down to herbage, the future vegetation which it produces tends, by its decomposition, to renovate the productive power of the soil. Land in this state is said to be in rest, therefore will not the three years' sainfoin be a source of manure? Shade is also equivalent to manure. We are all of us aware that a crop of clover mown for hay is a better preparation for wheat, than if the land is fed bare by sheep during the summer months, more particularly upon light land; also upon heavy land a stout crop of beans is considered a better preparation for wheat than a poor thin crop of beans; also a good thick plant of mustard is better than a light one, as a preparatory crop; also upon our lands when we feed our clovers with sheep we find it better, as a rule, to apply the dressing of farmyard manure that we intend for the wheat crop before harvest. Does not this prove that the land shaded from the sun is better than if exposed to its influence? Therefore, may we not safely infer that shade is equivalent to manure? Tillage to heavy land is equivalent to manure. We all know that a well-cultivated field of heavy land, without manure, would produce a better crop than a field of ill-cultivated land with manure. Succession of crops a source of manure. All plants grown and carried off the ground must necessarily tend to exhaust the soil; but plants which are grown and suffered to decay, or consumed by animals upon the land, do not exhaust the

soil. Some crops prepare the land for crops of a different kind, taking out of them certain propensities and leaving certain deposits behind, thereby rendering the field more kind for a succeeding crop of some other species. For instance, we all of us know in practice that a crop of clover without manure is a better preparation for wheat than a pea stubble with any fair amount of manure. The purchase of artificial manure to restore the fertility of our soil is a very easy way of getting over the difficulty; but is it not very desirable that we should ask ourselves if we have not some undeveloped sources of manure at home that it would be worth our while to look up and bring out? and would it not well repay us to give this question of succession of crops our best attention? The 3rd head of my subject—The keeping more stock: To keep in view profit, as I before mentioned, we must find one-half of the keep from the green crops of the farm. Will not the having 60 acres of sainfoin increase my food for stock, whether it is cut for hay, cut for soiling during the summer, in the yards, or whether it is fed upon the land for sheep? I have found sainfoin for horses and cattle in the yards during the summer months surpass any other green food, and for chaff during the winter for horses, cattle and sheep, there is nothing equal to it—it is both food and physic. Will not having the sainfoin from 60 acres of land, all taken off this 60 acres and consumed upon the rest of the farm, enable me to keep more stock, and adding the other half of cake or corn, make the rest of the land grow more corn? Will not the 60 acres of land requiring no manure for the time it is in sainfoin, enable you to manure more heavily the other arable lands of the farm? Will not these 20-acre pieces of land that have been treated in this way, when it comes to be laid down with clover, be more kind for a plant, cut more hay, or carry more stock, and therefore grow more wheat? Will not growing beet-root in the way I have mentioned enable us better to cultivate the fallow shift? I have mostly found this portion of the fallow the worst cultivated of any part of the arable land. Will it not also enable us to sow more swedes upon our light lands, increasing the quantity of food for grazing stock? Will not the putting these things fairly together compensate for the loss of twenty acres of barley? And will not the having these sixty acres in sainfoin of three different ages be the best means of providing against such dry summers as we have been having, and also prove no loss in a season when we have plenty of rain? To arrive at a proper conclusion, I will name what I have had a field of 16 acres of sainfoin produce these last three consecutive years: 1868—first crop of hay, 33 waggon loads; second crop fed by lambs. 1869—first crop of hay, 35 waggon loads; second crop, 80 sacks of seed. 1870—first crop of hay, 33 waggon loads; second crop seed, estimated 56 coombs. And here I may add I have now the option of taking it up for wheat or letting it lie another year, which I intend to do, in consequence of my young seeds having failed. I shall be following out one of the rules (if not all of them) of a great and successful merchant, who had three rules by which he exercised his judgment and conducted his business, viz.: "Take an option whenever you can. Cut short your losses. Let your profits run on." I have not attempted to show how to make farming a paying occupation or a profitable investment for money; that will depend entirely upon the business-like habits and judgment of the man; but I trust I have introduced such a subject for this evening's discussion as will bring out your practical suggestions, and such will, I fear not, prove a mutual benefit to us all.

Mr. FISON asked how the system of growing sainfoin would act on heavy land. Would it not depend upon the cleanness of the land?

Mr. PETO said it must depend upon the character of the land.

Mr. MATTHEW said if he had heavy land he should try it, although he should not be so confident of success.

Mr. FISON said he had tried it, and it had succeeded, but it was a favourable piece of land.

Mr. PETO said with regard to sainfoin on heavy land he could perhaps give some information. On a visit to Sussex two years since, he called on a friend farming heavy land, and to his astonishment, on a chalk subsoil he saw as good a plant of sainfoin as he had on his own farm. But it was useless to grow it on a stiff land unless it had a chalky subsoil. Sainfoin was suitable to the kind of land Mr. Matthew was farming.

By sowing a certain quantity of tares and rye-grass they got feed for the cattle where they would not otherwise get it. But it then became a question as to a wheat crop. He had found a difficulty in producing a crop of wheat after two such crops together. He (Mr. Peto) saved a piece of sainfoin for two years and had a nice piece of wheat after it. He regretted ploughing up the sainfoin this year, but there was great difficulty in getting sufficient hay and feed.

The CHAIRMAN said a friend of his planted some sainfoin on a heavy land with clay subsoil, and last year he had a good crop and this year a better one. If the soil was dry sainfoin would grow, but he questioned whether it would grow if there was no chalk. As to the four-course system if it allowed one crop to be grown in succession for two or three years it was a very great improvement upon the old four-course system.

Mr. MATTHEW said if he could grow three green crops, and show that it did not injure the land, no one could get damages from him. If a tenant grew three crops of sainfoin he would not be strictly following the lease, but he would defy anyone to make him pay damages.

Mr. TAYLOR asked the depth roots of sainfoin would run in three years.

Mr. MATTHEW said he could not tell. Wheat went down some distance, and no doubt sainfoin went down quite as far.

Mr. FISON said he once traced the roots of some wheat in full vigour nearly 20 feet into the ground. It is a gravelly soil.

Mr. PETO said that was contrary to what was generally believed, as it was said wheat stopped when it came to gravel.

Mr. FISON said he thought, after what had been said, that they might venture to grow sainfoin on heavy land.

Mr. MATTHEW said the stronger the clay the more likely would they be to get a plant, but it was his impression they would not get quantity.

Mr. HARRISON said it was his opinion that sainfoin would not do on heavy land.

Mr. MATTHEW said at Riddlesworth, where he managed a farm for Mr. Thornhill, he had a different system of growing sainfoin. The land was farmed on the five-course system, three shifts of green crop and two of corn, but he deviated in this way—he kept one shift always down in sainfoin, which he let lay for five years.

Mr. HARRISON said Mr. Matthew had treated the subject so ably that there was little left to say. He (Mr. Harrison) should demur from the system at Riddlesworth, as in the second round, which was now begun, he believed the plant would fail. He did not think it was safe to let the land rest less than 12 years.

Mr. MATTHEW said the land at Riddlesworth had 20 years rest from clover.

The CHAIRMAN said they must not overlook the other part of the question—that of growing beet in connection with the four-course system.

Mr. STURGEON said he found the best way of growing beet on his heavy land was to cultivate it by steam. He had a good plant on the land that was steam-cultivated, and on some other land that was not so cultivated he had not a plant. He also put on ten loads of farm-yard manure and quarter of a ton per acre of artificial manure. He had some land that would not grow beet or sainfoin any season.

Mr. MATTHEW asked what the steam cultivation cost per acre?

Mr. STURGEON said he cultivated the land twice, and it cost 25s. per acre, including coal.

Mr. FISON said he had ten acres prepared for beet, manured with ten loads of farm-yard manure, two cwt. salt, and a ton of guano. It was after rye, and he had a splendid crop.

Mr. DRISCOLL said he had found the artificial manure better than the farm-yard manure for beet.

Mr. GATES said Mr. Matthew's system of growing sainfoin seemed to be a means of losing money less than by growing wheat at 22s. a comb. He had been trying sainfoin on the flat, and he did not think it would answer. He got eight small loads off ten acres.

Mr. PETO said he agreed with Mr. Sturgeon as to the steam cultivation. If a man had that kind of land and the capital, he could not employ his capital better than in ploughing up the land 12 inches deep. He did not agree that it was right

to put any kind of manure on light or mixed soil land before Christmas. Where he had folded lands he put his ewes and sheep on to the turnips and such crops, and put them on to layers to fold. On a good mixed soil and clay land they could apply the manure any time they pleased.

Mr. FISON, speaking theoretically, thought a man would be more sure of a crop if what could be spared of farmyard manure were put on the land early in the autumn.

Mr. PETO said he spoke from experience. He had ploughed his land up nine inches deep for beet, and in February he should plough it back, and then in March he should bout it up and put the manure on about a fortnight before he put the seed in.

Mr. GOLDSMITH said he had grown sainfoin 40 years, and at first he found it successful. He asked to be allowed to farm 100 acres of his land on the five-course system, but he was glad to get it back again. He heard a gentleman say that sainfoin should lay one year, and he tried it for eight years, but he found it grew less every year. He grew better wheat after sainfoin than any other layer. He believed if he had taken sainfoin with beet, he should have done better. He believed sainfoin would grow on chalk that was thoroughly dry, and he knew instances of chalk land that was cold not growing sainfoin. With regard to beet he thought the early cultivation was the best. When he ploughed his manure in the autumn, he always had the best beet. If a man had heavy land, and wanted a crop of beet, he must put his hand into his pocket.

Mr. WITT was of opinion that they should grow as much sainfoin as the land would reasonably grow. As to mangold he could grow better from artificial than from farm-yard manure, and he had tried both; and his barley was quite as good after the one as the other.

Mr. MATTHEW said he should like to know the effect of rape-cake for beet-root. The French, who grow sugar-beet, used it largely, and that had increased the price.

Mr. GOLDSMITH said he had got more per acre off the land on which he had put rape-cake than he had off other land.

The CHAIRMAN, in summing up the discussion, said that beet and sainfoin were too expensive crops, and especially the former. The fewer acres of beet they grow the better, and their aim should be to grow the greatest quantity of roots on the smallest quantity of land. With regard to sainfoin he could say very little. He had tried it, although with partial success, but intended to grow it again, and should go between the system advocated by Mr. Matthew and that advocated by Mr. Goldsmith. He (Mr. Manfield) should first grow a root crop, to be followed by barley, to be followed by sainfoin, to stand again, and this he should follow by wheat. After wheat he should put barley, and thus miss a second wheat crop. Sainfoin produced more stover and more money per acre than any other green crop of the clover tribe they could grow. Mr. Matthew had spoken of ryegrass, but that would be the last thing that he (the Chairman) would grow if he could help it.

Mr. MATTHEW, in replying, said he quite agreed with letting the sainfoin lay only two years if a man could not keep his land clean; but if he was going to take two fallow crops as they came round, he should let it lay three or four years. To secure a crop of sainfoin to lay three years the land should be in the best condition.

A vote of thanks to Mr. Matthew for his paper was agreed to.

THE NEW MARKETS AT DONCASTER.—The foundation stone of the new Corn Exchange and the south east wing of the market-house was laid by the Mayor, Mr. A. J. Smith, in the presence of a large concourse of people, on Thursday afternoon. The market improvements of Doncaster are amongst the most important works which the Corporation have undertaken. These extensions will not only supply a great want as a corn exchange, but will add another architectural ornament to the town. Besides this, the inhabitants will also have a spacious hall, which may be used for public meetings, assemblies, concerts, and their like, and will afford accommodation to a greater number of persons than any place at present existing.

THE DISTRIBUTION OF STOCK AND CROP ON A FARM.

BY THE NORTHERN FARMER.

It will be conceded by most men interested in or connected with agriculture that the man who makes fewest changes has, in the long run, the greatest chance of success, and is most likely to attain a competency for his declining years. By this we do not mean or allude to in any way the man of stubborn spirit, or possibly dull intellect, who sees no necessity for change, but is perfectly satisfied with old modes of farming, breeds of cattle, and implements of old style merely because they are old and did very well for those who came before him. Such men, unless highly favoured by fertility of soil or other fortuitous circumstance which gives them an advantage over others in the same business, must go down, and every succeeding year finds their numbers lessened and their places taken by men who by having been better educated and possessing more tact, see the necessity of availing themselves of all the advantages and labour-saving appliances which a progressive age has placed within their reach.

The class we particularly refer to are those who are constantly changing their mode of farming to meet, as they suppose, the exigencies of the times, selling off their dairy stock to get into sheep, or breaking up permanent pasture, and doing away in a great measure with live stock for the purpose of growing an increased quantity of corn because the price of that commodity is temporarily good. Some men at almost regularly recurring intervals have an auction at their farms, the public notice of which invariably states that in consequence of a change in their system of farming, a portion or the whole of the present stock and many of the implements are no longer required, and will be disposed of by public sale. Such a line of conduct pursued by a farmer, we look upon as highly dangerous to his present interests and future well-doing, and he must have more than an ordinary share of luck if he benefits in the long run by the repeated changes which his stock and style has undergone.

Suppose, for instance, the case of a man breaking up a portion of permanent pasture for the purpose of growing more corn than he has been in the habit of doing, merely because that article for the time being bears a relatively higher value than it had done for some years past, and displacing a portion of his live stock to enable him to do so. The probability is that by the time he has the corn ready for sale, a reaction has taken place, shippers having had their attention attracted to the very thing that induced him to break up his land, grain-ships crowd into every port, and the markets everywhere are speedily lowered and equalized. So quickly is this now done, and such a short period is permitted to elapse after the markets have risen so much in these islands as to afford a margin of profit, that it has become nearly an impossibility to catch a paying price with a specially grown crop. In like manner loss is frequently experienced with live stock, when, after a year or two of good prices for certain descriptions, a farmer is induced to alter his mode of management so as to have all, or nearly all, his animals of one sort, and ready for sale at the period of the year his recent experience led him to expect prices would be high. This mistake seems to be easier and most frequently made with fat cattle and in sheep breeding, and from the fact of numbers simultaneously following the same course and adopting the same line of argument in

making their arrangements, the markets are almost sure to be glutted at the very season they were previously scarce, and as sales must in general be forced, the profits are scarcely perceptible, even should actual loss be avoided. A mode of farming which combines regularity in the quantity of both white and green crops grown each year, sustaining an easily-ascertained and regular number of stock both summer and winter, must obviously be a much safer system for a farmer to follow than that which attempts a change in one or more of its departments every other year. When a system is followed with unvarying regularity for a succession of years, the man who carries it out has an opportunity of learning his business thoroughly. He finds out the best market for his produce, or may even succeed in making a local market for some portion of it; he can calculate almost the exact amount of food, and balance his animals accordingly. The quantity of manure made is as nearly as possible proportioned to the breadth of land required to be gone over; and his having something of everything does away in a great measure with the danger of heavy loss. A rotation of crops, based on sound principles, and embracing as far as possible all the elements of good husbandry, is assuredly the best safeguard for both the owner and cultivator of the soil, the interests of both being protected, and their prosperity ensured just in proportion to the stringency with which its conditions are enforced. We seldom hear a farmer speak of extending by a year the rotation which he is bound to follow, the extension consisting in taking a second corn-crop in succession, without much doubting the propriety of the course which he proposes carrying out, as unless the land is very good indeed, the hay-crop, which succeeds as well as the subsequent grazing, is impoverished in an exact ratio to the weight of the crop so taken. The pasture will be noticeably deficient in succulence; slow to make a start in spring; growth easily checked by dry weather in summer; and, as an unfailing consequence, the field will be unable to keep the number of stock, which under more favourable circumstances it might easily have sustained. Even when again broken up, the scourging crop will show by a feebler vegetation, neither corn nor straw being up to the mark; and the soil will not recover its full vigour and strength until it has got a liberal dressing of farm-yard manure. We altogether disbelieve in the renewing influence which stock exert on pasture-land which has been laid down in poor condition, although it is an idea by which many men are beguiled, and induced to crop severely in the expectation that when in grass the stock, particularly sheep, will make it all right. Careful consideration ought to make it apparent to all interested in the matter that before the animals can improve the herbage, they must be fed themselves; and if the field has nothing under the surface from which the roots of the grasses can derive nourishment, it is vain to expect a vigorous or abundant growth. Hence, but a small number can be kept on such land, and those probably barely able to keep themselves in store condition; the cash return for the season is almost nil; and the pasture has not visibly altered for the better. In the course of another year the improved grasses begin to die out for want of nourishment; moss spreads itself like a carpet; the herbage becomes coarse and sour, indicated by its

being rejected by the cattle, and left in large tufts all over the field; and the improvement which was calculated on so hopefully ends in disappointment and loss. The extended introduction of portable manures has often tempted men to take advantage of their land, with the view, it may be, of getting over a temporary difficulty by so doing; and corn has been taken after turnips grown with guano and phosphates, and the land laid down in ordinary course, without getting a particle of dung, and the roots drawn from the field on which they were grown, and consumed elsewhere; or probably sold off the farm altogether. Lessening the live-stock on a farm, with the view of growing both green and white crops nearly altogether, with the assistance of artificials, is about the most suicidal policy a farmer could contrive to follow. At first it is rather attractive, and offers some advantages; one of the most apparent being the saving of labour in the collection, carting, and application of manure. A couple of horses may be dispensed with, and probably a few hands, less or more, according to the size of the occupation, and for a time the expenditure is sensibly diminished. On a farm in good heart this course may be followed for a year or two to tide over a difficulty; and if done judiciously, may possibly reinstate the farmer in his former position of independence, and enable him to keep a full stock of cattle for the manufacture of the indispensable article, dung. To persist in using concentrated manures solely, can only have one ending, and that is ruin. Objecting so strongly to that mode of farming, which distinguishes it from a fixed system of husbandry may be styled erratic or occasional, we necessarily admire the forethought and wisdom displayed in those leases which, under liberal covenants to the tenant, yet bind him down to follow a certain fixed rotation, which observation and experience has fully demonstrated to be most suitable to the peculiarities and character of the soil which he has undertaken to cultivate. To have permission to alter the arrangements of the lease; particularly with regard to introducing another corn-crop, we look upon as being but a very doubtful privilege; more likely to injure than benefit the lessee; the immediate monetary return being eventually swallowed up in restoring the land to its original condition. It takes a very clear-headed and talented man to manage a farm on which the business is conducted irregularly, the deterioration of the soil, the changing character of the seasons, and the fickleness of the produce markets, all combining to render it an impossibility to calculate with any kind of precision what product will succeed best; and, moreover, bring the largest amount of money for the coming season. There can scarcely be an error committed in growing too great an extent of green-crop; yet, a large breadth is too frequently avoided, probably on account of the cultivation being elaborate and expensive, and the return not quite so quick as is the case with corn, unless sold direct off the farm—a mode of disposing of them which is counted such very bad farming as to deter any one from attempting it, unless under circumstances peculiarly exceptional. Now a well-mannered green-crop, forced into rapid and succulent growth by a well prepared soil, is in the end the cheapest and best paying crop a man can grow, as its characteristics are essentially restorative. During the earlier stages of its growth the land is cleaned and stirred, and thus receives all the beneficial effects of atmospheric influence which it could have had if under a plain fallow. The more these crops are forced, and the greater the success achieved in their cultivation, the less do they take from the soil by the absorption of its manurial constituents. It requires no scientific knowledge on the part of the practical farmer, who has been at all observant of the processes going on year after year under his immediate

observation, to show him that all plants having large leaves act beneficially on the soil. Experience shows him that when the surface of the ground is covered with this kind of vegetation it is warmed, and weeds are destroyed by the shade. Moreover, by means of the largely expanded surface spread out to the atmosphere in the shape of leaves, the crop is enabled to absorb much of the nourishment which it requires from the air itself, becoming less and less exhaustive of the soil as the leaves are developed. Again, the roots of the turnip and mangold being taken up before they have made any attempt to perfect their seeds, a fruitful source of exhaustion is at once avoided, and the soil retains the manure but little altered in its character for the support of succeeding crops.

We know of no rotation capable of being so universally adopted on light and medium land as the four-course, modified or extended as local circumstance or climatic influence may render suitable or obligatory. It embraces all the elements of good husbandry; its very foundation being the thorough cleansing of the land from weeds, and the restorative and exhausting crops being so equally balanced, there is no danger of deterioration, if the rules of good husbandry are carefully attended to. To keep up the large supply of manure which is yearly required, a heavy stock must be constantly kept, so that every thing in the shape of green crop, clover, and cultivated grasses can be consumed on the farm, and converted into this invaluable fertilizer. By carrying out this system, the idea with which we started, and which forms the heading of this paper, viz., the equal "distribution of stock and crop on a farm," becomes realized. The breadth of roots grown each season even on a small occupation being considerable, a correspondingly large number of animals can be carried through the winter, and thus a continuous system of reproduction becomes inaugurated and sustained. In exact proportion to the success attained in one season will be the power to prepare and collect abundant material for the sustenance of the succeeding crop, and lay a solid foundation on which to rear a well-earned and substantial prosperity.

It is singular that the four-course system can scarcely be profitably carried out in its integrity outside the county in which it originated. This more especially applies to growing wheat after clover, and, although repeatedly tried in the sister countries, invariably proves so unsuccessful that it has to be given up. We saw it ourselves persevered in for several years by an clever, patient, and enthusiastic a man as one could well wish to meet; and he had reluctantly to give the matter up. He could not conceive that what did so well for him in Norfolk should not do elsewhere; but, although he succeeded splendidly with clover, the produce of a statute acre of wheat could not be forced over eighteen bushels, and that amount was reached only in a very favourable season. Where wheat will not succeed as the opening crop, oats must be substituted, barley being still continued as the laying-down crop, although on good land wheat is frequently taken instead. The temptation at this stage of the course is very great to take the second corn crop, and the arguments in favour of doing so which present themselves to a man's mind are peculiarly seductive. If heavy expense has been gone to in preparing for the root crop, and the land consequently in good condition, it appears but a trifling matter to take wheat first and then barley, the latter being of superior quality, and a better crop than it would have been, if taken immediately after the roots, and besides being so much safer to lay down with than wheat. The second corn crop may possibly not be so injurious when followed by one year's clover, but when sown down for one year's hay and one or more year's pasture, it tells surprisingly; and, again, on the opening crop its effects

are extremely noticeable. By sowing mixed grasses and clovers, and pasturing for a season, the four-course becomes extended to a five or six-course, as the case may be, and in this way becomes extremely convenient on the thinner soils, rendering the work less laborious and recruiting the land by a short period of rest. This proves of immense advantage to the green crops, all the varieties being extremely shy growers on land long worked and loose of texture, but delighting in fresh land newly broken up, even although so coarse and lumpy as to appear almost unfitted for the reception of their small seeds.

By extending the rotation, a better opportunity is afforded for holding over a stock of breeding ewes and a larger stock of cattle for the summer than could otherwise be managed. When a dairy stock is kept and the calves reared, the young cattle can be held over more conveniently, coming in handy to tie up for stall-feeding, and the farmer becomes in a great measure independent of the markets, useful stores running so high in the autumn fairs when in such general demand, that the obtaining of anything like a fair profit on their keep for the winter is becoming every season more problematical. By so arranging the crop and stock of an arable farm as to have both summer and winter food in abundant supply for all the animals reared, selling nothing until so well finished as to be incapable of improvement, all the profit that can be extracted from them is secured to the breeder.

Another very important advantage which accrues to the farmer when in a position to dispense with the purchase of extra stock is the immunity from contagious disease which he enjoys. He may not always escape, the approach of distemper of any kind being so insidious as to frequently baffle all arrangements for its exclusion however carefully made, but his chances of doing so are infinitely greater than when animals that have travelled long distances are periodically introduced to his pastures or stalls. Many men have been crippled in their resources for years; nay, brought to ruin's verge by the introduction of one diseased animal, no notice being taken of the danger until numbers had been contaminated and the mischief irreparable. Carefully bred cattle, well-fed from their birth, are more uniform in their character and general outline than those usually picked up at markets and fairs, and being inured to both climate and soil, escape those checks, frequently severe in their nature, which bought cattle too often experience, and which are altogether unavoidable if they have been reared in a more sheltered district than that to which they have been brought, or on better land.

The same argument applies equally well to sheep, as if a breeding stock is kept its owner has an opportunity of studying and improving on every point where he imagines there is a deficiency—wool, mutton, and milking property all coming under his intelligent supervision, and gradually worked up to a useful standard, becoming distinguished in a few years by uniformity of type, possessing a fair share of every quality that constitutes a good sheep. Above all things he can improve his own position and the character of his flock by judicious crossing with a view to enlarging the milking capacity of the ewes, as, however well bred, if they are poor nurses maturity is delayed, and under the most favourable conditions the number of puny lambs is out of all proportion to those marketable, or really worth holding over as likely to turn out paying store stock. Bought sheep very frequently prove troublesome, if from a district or farm where it was not usual to feed with roots in winter, as they will starve almost before they can be induced to touch a turnip. The sheep bred on an arable farm being used to roots during their first autumn and winter, will subsist wholly on them at any future period, if by severe weather they are excluded from being able to pick up a

living on the pastures. Cutaneous disease may never be known by a man from youth to age who breeds his own stock; whereas if he makes frequent purchases he can scarcely avoid its occasional introduction by any amount of care, forethought, or experience. The loss from this cause alone is dreadfully severe, and the annoyance beyond expression, when it becomes established in a large flock—years sometimes elapsing before it is thoroughly eradicated.

The ever-present difficulty with the arable farmer is the keeping up of a regular supply of fertilizing matter with which to nourish the crops and recoup the soil for the continual drain upon its permanent resources. It is the husbandman's interest to take as much out of it as possible; yet, while he does so, he cannot afford to transgress the rules of good husbandry, or at best but negligently attend to them, as, if he does so, the earth will in a very short time refuse to yield a profitable increase.

Manure can only be made on the farm by keeping a large number of well-fed animals, and even with the very utmost that can be done in that way the quantity will be short, unless purchased food, either bulky or concentrated, is brought to the farm and consumed there. When favourably situated for procuring bulky manures at moderate cost, the farmer may grow whatever crops he may think likely to pay him best; but when from remoteness of situation such a supply is denied him, he must of necessity give a preference to those which, by being consumed at home, leave a considerable residuum for the nourishment of the soil.

Potatoes, when they escape disease, pay remarkably well, and most men like to have a few acres of the earliest varieties for sale, the amount of money made by them being large, and the return immediate. Now this crop, although classed as ameliorating or restorative, is only partially so, inasmuch as although it requires to be well manured, and gives an opportunity for cleaning and stirring the soil, and thus forms an excellent preparation for a paying crop, it yet robs the land thus far, that being sold off the farm, it returns nothing in the shape of manurial constituents for the sustenance of future crops. No one knowing the importance of the potato to the rent-paying farmer would think for a moment of recommending a reduction in the breadth grown for the reason above stated; but keeping that line of argument in view, he may with great propriety recommend the purchase of all the manure required for the potato crop, so that the roots may have the advantage of the home-made dung, and a full breadth grown without having to resort too extensively to portable fertilizers. Potatoes do well on the manure from large towns, and this should be trusted to in every case where it can be procured at all economically, whether by road, water, or rail. Five, ten, or twenty acres managed this way every year according to size of occupation, is of immense benefit to the man who carries it out, as he can by the use of this extraneous manure grow a crop which pays all expenses, heavy though they may be, and leaves a good profit, besides benefiting the land through every crop in the rotation.

In this paper much stress has been laid on the necessity of keeping a heavy stock constantly on the farm; yet some care must be exercised to provide a proportionate amount of food, and to have it for every season, otherwise, instead of profit, the year's transactions will end in loss. The farmer, who is over-stocked, is always in trouble; in spring he must stock the pastures too early for the want of house-food, and in autumn he must permit the cattle to remain in the fields until, through exposure to bad weather and insufficiency of food, they become greatly reduced in condition. If to avoid this he begins early on his store of roots and hay, he is run out probably in March, the very season when the lengthening day and the

chilly cutting winds cause increased consumption, and a struggle of some kind must be made to hold them over on purchased food until something can be picked up on the pastures. The full supply of food tells on every animal, but of course most noticeably on those whose produce is being daily turned into cash. The widely-distended bag of a well-fed cow as she comes from the pastures to be milked, and the sense of relief which she unmistakably shows when the process is completed, is both a source of gratification and profit, and is in wide contrast to the limp half-empty appearance of the udder, when the cows are on bare pastures, and have to roam about continually in quest of food. No amount of care or good management on the part of mistress or maid can make up for this oversight on the part of the master; and when, on making up the year's receipts, he finds the amount to be little over half what it reasonably might have been, he can only blame himself for his short-sightedness in keeping more cattle than the food he had provided was able to sustain. Breeding ewes tell also very forcibly by the return which they give, whether they have been liberally fed or not, any deficiency in food telling at once on the milk, and the lamb in consequence ceases to grow, and becomes stunted and profitless. A flock of sheep do

gradually when on a good range, and give no trouble, the lambs thriving so rapidly as to be almost seen growing; and the ewe herself grows a good sound marketable fleece, besides being nearly always in prime condition, a very short period elapsing after the lambs have been withdrawn, when she herself is fit for the butcher.

A fixed course which recognizes the true principles of successful husbandry, the restorative and exhaustive crops being equally distributed, and the wants of the live-stock well provided for, will, if patiently persevered in, seldom fail in placing the man who carries it out in a position of independence and comfort. When a farm possesses a moderately good soil, and is not over-rented, the tenant is encouraged to improve, and a very few years' care, attention, and judicious outlay effects a vast difference on its appearance and capabilities; fences are improved, perennial weeds eradicated, and the increasing bulk of the crops indicate with considerable exactness the degree of progress which has been made. The grass assumes a more healthful and brilliant hue; the sward becomes thicker, and feeds more cattle than it could previously, and to better purpose; and as the "face" and stamina of the farm improves, so in direct proportion does the farmer's present condition and future prospects.

THE GREAT EXHIBITIONS OF IMPLEMENTS.

At the closing Council Meeting for the season on the first Wednesday in August it was resolved that "The Implement Committee of the Royal Agricultural Society of England be requested to consider and report in November whether any or what restrictions should in future be imposed on the exhibition of duplicate implements, especially by agents, and on the exhibition of miscellaneous articles." Again, in the Special Appendix or Report on the Taunton Meeting of the Bath and West of England Society, as just issued, the pamphlet opens after this fashion: "In order to keep the show within reasonable dimensions, duplicates of every description should be forbidden, that is when the maker is present. Agents should be absent. In many cases we found the same implements on different stands. The miscellaneous department, by which we refer to the immense collection of articles not in the remotest degree agricultural in their bearings, requires compression and centralization. They appeared here, there, and everywhere. We would go further than this, and suggest that exhibitors of similar kinds of machinery should, as far as practicable, be collected together. It has been done with reference to the seedsmen with the best effect. Why not in other departments? The coach-builders made a great display. What a comfort to an intending purchaser if he could have compared the merits of inventions at adjoining stands instead of having to consult the catalogue and run from one end of the show to the other! How interesting and convenient if all makers of reaping and mowing machinery could be put nigh one another!" The agricultural authority of *The Times*, we believe, claims credit for having advanced something similar on the overwhelming extent of the implement section of our leading meetings; but, considering the terrible muddle he made of the stock show at Oxford, he should surely have gone a little further, and have recommended that there should be no "duplicates" of cattle or sheep, as more especially not of Devons, nor of Herefords.

Plainly put, of course the resolution of the Royal Society and the first suggestion of the West of England Society go directly to destroy the agency business. The Royal Society aims at exhibition restrictions

"especially by agents;" and the West of England Society says, "When the maker is present agents should be absent." If carried out, this step will not only materially change the character of the show but still more clearly revolutionise the trade. Many of these agents have stands of their own at the great and smaller gatherings of the year, and many of the makers prefer that orders should be executed through the local agents. How often have we heard the head of a firm refer a customer to Mr. This or That, "in your own neighbourhood," as the man to supply him with a prize plough or a reaping machine! But henceforth the agent is to be "absent." We do not suppose that it is proposed to go quite so far as to banish him bodily from the show ground, but he is to be denied the great benefit of this greatest of all advertisements, and to confine his operations henceforth to the market-place and the farmers' ordinary. There is, perhaps, no other business which depends so much on, or which has developed itself so signally through the means of efficient agency as the manufacture of agricultural machinery; and the proposed reform raises a question that would certainly look to be rather a delicate if not a dangerous one to deal with. As regards "the miscellaneous articles" the course is clearer. Every body is coming to see "the opportunity," insured by the attendance at a Royal Society's show; and, unless some very resolute restriction be adopted here, we shall, no doubt, very soon have grand pianos, patent tooth-picks and soda-water manufactories distracting one's attention from the more orthodox display of chaff-cutters, steam-engines, or haymakers.

We do not know how far the Implement Paper in the West of England Appendix has the authority of the Council; as without this it can naturally have little or no weight. But taking for granted that the opinions here propounded have at least been "passed" by the Journal Committee, we may give a little more attention to the contemplated alterations in the exhibition of implements. The writer certainly goes "further," when he advises that similar kinds of machinery should as far as practicable be "collected together;" but, although apparently offered as such, this is by no means a new idea.

We have seen it adopted at meetings of the Highland Society, and with the most thorough failure and general dissatisfaction. An exhibitor, whose expenses are heavy enough already, will have to multiply his staff, while the arrangement of his stand will be destroyed, and the complete really "Royal" look of the ground lost to us for ever. Nothing, as we well remember, presented a more poverty-struck appearance than that row of ploughs at Edinburgh, where "the intending purchaser could compare the merit of inventions," with the show-men jostling each other like cheap-jacks at a country fair. Palpably there is only one legitimate way of "collecting similar kinds of machinery," and of "comparing their merits," and that is of course by public and properly organized trials. But then the West of England Society in its wisdom has discarded any proper system of trials; anybody goes to work or not, as pretty much when and where he pleases, and as a natural consequence nobody seems to care much about what little is done in this way. The writer of the report says that at Taunton "steam cultivating machinery was conspicuous by its absence. Surely it might be regarded as an evidence of the firm root it has taken, that makers can afford to be absent." Was ever there such an absurdity proffered in the shape of an argument or reasonable deduction! He might as well say that the steam-engine or the drill has taken such firm root that makers can afford to be absent! The true cause, no doubt, is that it does *not* pay to exhibit the steam-plough at the West of England shows. The field trials command but little interest, and these have often been so far away that few people ever thought of visiting them. When, however, the Royal Society next year offers its thousand pounds premium will "steam cultivating machinery be conspicuous by its absence?" or can "the makers afford to be absent?" In our report of the meeting we said that "the trials" were never so tame as at Taunton; while we suggested, as we suggest still, that the Council should offer, say a hundred pounds in premiums for novelties on the stands or in the fields,

when a new spirit would be infused into these proceedings; for, as their own reporter now puts it, "the decision arrived at *does* guide the mass, otherwise we should not find exhibitors so intensely eager for success." Who of late years ever saw an implement exhibitor intensely eager at a West of England Show?

Colonel Luttrell writes like a master of his subject on the horses; Mr. Hole concludes his notice of the Devons by "regretting the absence from the list of exhibitors such as Messrs. Quartley, Turner, Mordridge, Passmore, and others, as no question the show Devons from this or some other cause are much below their average excellence, despite that wondrous tale of the *Times*, which declared them at Oxford to "have never been better!" Mr. Savidge, the Shorthorn judge, says Royal Buttery 20th "quite surpassed" Mandarin, and "won point for point," a decision we protested against at the time, as at the Stroud show the other day Mandarin "quite surpassed" Buttery, and "won point for point," whatever that may happen to mean. Then Mr. Henry Fookes, as the sheep steward, "has every confidence in asserting that the judges went through their arduous duties in a manner which could not fail to give satisfaction to all possessing a practical knowledge of the breeding and management of sheep." As regards the Southdowns, on which Mr. Fookes is especially well qualified to speak, we reported precisely the reverse of this. The judging did *not* give satisfaction; and as one of the judges at Oxford, Mr. Fookes did everything he could to upset or correct the Southdown judges at Taunton! Would Mr. Fookes, in the face of all this, be good enough to tell us to whether of the two we are to look for "practical knowledge," "breeding and management," and so forth? There never was a more direct contradiction than these two sets of awards convey, and one or the other must be wrong. Either Mr. Fookes judges better than he writes, or *vice versa*; and it would really be interesting to know in which province we are to regard him as the better authority? So far, precisely as he writes up the Taunton judges does he write down himself.

THE ADMINISTRATION OF THE POOR LAWS.

A conference of the counties of Hants and Berks was recently held at Basingstoke, Mr. W. W. B. Beach, M.P., in the chair.

Four subjects were set down for discussion at this meeting, viz.: 1. "The training of pauper children;" 2. "Vagrancy;" 3. "Out-door relief;" 4. "Internal management of work-houses."

The CHAIRMAN, in opening the conference, said they were all much indebted to Mr. W. Portal for the great trouble he had taken in this matter, but he knew full well the great difficulties which arose in administering the Poor Laws, and he had therefore been justified in calling those more particularly interested in their removal together to consider what measures might be taken for producing some amelioration of the present Poor Law system. No doubt the difficulties which existed resulted very much from a difference in the several modes of administering relief by the various Boards of Guardians, and those gentlemen were perfectly justified in judging in each case brought before them; but they, perhaps, had not always the same opportunity of judging as the members of another board might have. Different cases were brought before different boards, and the different members of a board must hold their particular opinions as to the mode of dealing with cases. But it was desirable, if possible, that some homogeneous arrangement should be effected by which boards of guardians throughout the country might act in harmony with one another. The present Poor Law system

had now been worked for a considerable time, and it was a great improvement on the system which had previously existed. Pauperism in extent had been greatly reduced, and an improvement had been effected in the mode of carrying out relief; yet, from various causes operating at the present day, we were, to a certain extent, relapsing into that system which existed prior to the passing of the present Poor Laws. There was no doubt that the great evils which were prevalent in former times in administering those laws resulted from relief being given in aid of wages. This encouraged men to rely on eleemosynary relief; but it should be their object to give assistance in such a manner as to encourage a man to rely upon himself. He should never apply for aid unless absolutely in need; but he (the Chairman) feared there was now a great disposition on the part of a labouring man to think that upon every petty occasion he was justified in applying for assistance. He did not possess that spirit of independence which years ago would have led him to shrink from doing so. A great proof of this was to be found in the great, the alarming extent, to which out-door relief existed at the present time. The proportion of such relief in England and Ireland, although the analogy did not quite hold good, differed materially. In Ireland out-door relief was scarcely in excess of in-door, whilst in England it was immensely in excess of it. Of course out-door relief should be given in certain cases—where, for example, a man was incapacitated temporarily from labour in consequence of accident; but it should always be awarded with great discretion, and only where a man was totally unable to support himself and his family. To medical

relief he should be entitled at such times, and more should not be given unless he was totally unable to gain support for himself and those dependent upon him. Various opinions were entertained as to the modes in which the many evils which had arisen should be dealt with and checked, and by which a better system might be brought about; but these suggestions involved such a large number of subjects that he should not be justified in trespassing upon their attention by bringing them forward at the commencement of that important discussion. There were a great many professional tramps wandering about the country, and it should be as much as possible the object of those engaged in administering relief to the poor, whilst affording temporary aid in workhouses to those passing by, to check the system of professional tramping.

VOICE: Professional vagrancy does not exist to anything like the extent generally believed.

Mr. W. PORTAL, before reading his paper, made a few preliminary remarks on the course of the proceedings arranged for the day, intimating that papers would first be read by gentlemen on four subjects, which would afterwards be discussed. The reasons which had induced others and himself to invite those present to that conference were that in other parts of England meetings of the kind had been held, and had been attended with beneficial results. They had present amongst them Mr. T. B. Baker, a gentleman who had taken great interest in the subject, and who had the management of a conference of this character. He (Mr. Portal) had the pleasure of attending one of these at Malvern, not long ago, and he thought it would be desirable to introduce them into this neighbourhood. It appeared to him it would be well that the people of this county should have an opportunity to discuss the different modes of administering the poor laws, for it was astonishing to find the difference that prevailed in Union A, Union B, and Union C, and none of them, he thought, were so well versed in poor-law matters, however great their experience might have been, that they could learn nothing from each other during these discussions. They had that day some fifty or sixty gentlemen representing 38 unions—26 in Hampshire and 12 in Berkshire, and it would be a question for decision presently whether it would be advisable hereafter to hold these meetings periodically—alternately at Basingstoke and Reading. He had ventured to take the lead on the present occasion, and (if they would permit him) he would now read the paper he had prepared: Training of Pauper Children.—Upon the training of the children of paupers *no* depends in a very great measure the amount of pauperism for the future. "Once pauper, aye for ever pauper!" may apply with but few exceptions to the adult, but inasmuch as the vast majority of pauper children are so from no fault of their own, but from circumstances over which they have no control, and for which they at least are not responsible, we shall all, I think, agree that we are bound, as individuals, and as a nation also, to spare no pains or means to rescue them while young from their unenviable position, to foster in them a spirit of self-reliance and thrift, and to fit them for taking their places in the world as industrious, honest, respectable, and respected men and women. Let me remind you at the outset, however, that "pauper" children are not a very hopeful material to work upon, or are they altogether capable of being compared with the ordinary run of children of national or other schools. Many are weak and diseased, born of diseased parents, weak in body, still weaker in mind; yet all are equally children of the state, and all must be efficiently tended and cared for. They are, in truth, destitute. No one else will have them, no one else will take care of them. Some are born in the workhouse, and remain there until able to earn their own living, while others are in for much shorter periods, and liable to be removed at any time by their parents. Such are the materials we have to deal with, and they at once suggest difficulties. There are several ways allowed by the legislature to boards of guardians for the training of children, and for facility of discussion by this conference, I divide them into four general heads: 1, *Children out to School*; 2, *Children taught in the Workhouses*; 3, *Children sent to District Schools*; 4, *Children Boarded out*. 1.—There is the very small workhouse, where the children being so few in number that it is not deemed desirable to have a separate school, and these in the workhouse go, as if they lived in their parents' cottages, every morning to the national school in the village or town adjoining, taking their mid-day

meal with them, with their slate and their books, and leading very nearly the same kind of life as their poor but freer neighbours. I believe that children thus taught, and mixing early in life with their equals and their betters, joining in their games, exposed to the same weather, and liable to the same temptations, are found to be capable at the accustomed age to fill with credit the places allotted to them, and, presuming always that there is a good master and matron in the workhouse to look after them while in the house, instances of permanent or hereditary pauperism are under such treatment seldom to be met with. The objection commonly raised to this system is that the children are away out of sight of the master and matron during so many hours of the day. They cannot, therefore, be wholly responsible for the conduct and behaviour of the children, and that such going out of and coming into the workhouse gives facilities for bringing into the house much that is objectionable and to be avoided. It has also been said that, by the village or other school children these poor friendless ones from the workhouse are regarded as "speckled" birds, looked down upon by them as inferiors, not admitted into their little coteries, not permitted to share their games and pleasure, and that this has a depressing effect on them. How far this is so many gentlemen here can doubtless inform us. 2.—We come now to mention the school in the workhouse. The usual type, however, of a workhouse school, conducted either as in the smaller workhouses by one teacher only for boys and girls, or, as in the larger workhouses, by a master for the boys and a mistress for the girls, is the system most commonly in use in country unions, and under which system the majority of pauper children are brought up. I will not describe the routine pursued at schools of this type, because they are well known to all here, and I must be very brief. Whatever may be the shortcomings of these schools, I do not think they can be said to have failed. Although 20, 15, or even 10 years ago, much fault may have been found with these schools, I have yet to learn that pauper children trained in them become paupers when adults, whether female or male, or that the present inmates of the workhouses of this country contain any appreciable proportion of those who as children received the full benefit of training in them; on the contrary, I believe that if a return were called for by the Poor Law Board, showing the number of children who have received full benefit from workhouse training a very large proportion of them will be found to be dispauperised, and no difficulty whatever is found in procuring situations, especially for the girls. Some of these schools, however, are, we must all allow, unsatisfactory. And yet the discipline is found to be good, perhaps too good. The children often look drilled and disciplined to an extent that verges on the ridiculous or the painful. The punctuality and regularity is not to be excelled in a regiment or in a man of war. They watch every twinkle of their master's eye, and every frown on his brow, and they smile only when he smiles, and that is seldom or never—in their presence, at least. They are walked out once or twice a week during very fine weather; they mustn't get their clothes wet, much less their feet; but as for games, they scarcely know any, and if they did, there seems an absence of spirit and boyish energy and pluck about them which we all delight to witness in other playgrounds and cricket fields. In school hours they for the most part are taught to read, write, and sum well; the schools are periodically inspected, are generally pronounced to be in a creditable condition and the masters and mistresses "efficient," or at all events "competent"; and very many children are made fair scholars, and are good, trustworthy, well-meaning boys and girls, but many of them are not able to battle with the world into which they must soon enter, and are unable, in short, to get their own living. Though many of these schools have also an industrial teacher, and the boys are frequently taught both tailoring and shoemaking, I believe that the instances are extremely rare of this kind of training being turned to any really good purpose in after life, and but very few are competent shoemakers or tailors from this instruction. The outdoor work, too, in the garden or in the field (as the case may be) to which these boys are taken generally (in fine weather, at any rate) in the afternoons, seems somehow or other to lack reality about it: they dig unlike other boys, they walk, they talk, they run unlike other boys. If you watch the whole proceeding you cannot help bearing away with you the impression that these boys are not working for their own living. There is an artificial appear-

auce about the whole work. It does not look like business, there is too much routine about it, and when farmers and others come to the house and ask for a boy to enter his employ on the farm, or in his house as a servant, you hear very shortly that the poor boy is more trouble than he's worth, that he's as green as grass, and that it requires the temper of a Job to put up with him. And the same may probably be said of the same workhouse as regards the bringing up of girls, in that, though they have been taught needlework, washing, cooking, cleaning, &c., they are unfit for service when they come to be free, and they are glad to go to such an "Industrial Home" as that established by the kind Miss Twining and others, to fit them for service, domestic or otherwise. When all this is true of a workhouse school, to what cause are we to attribute it? So far from believing it to be due to any niggardly or parsimonious feeling on the part of the guardians (a body of men who receive a large share of abuse, and of whom many hard things are most unjustly spoken, but said, I am inclined to believe, in ignorance), it is due, I believe, to the very opposite cause. The life of children in a workhouse is too *artificial*, too unlike the real, hard, stern, struggling life which they *must* engage in when they leave it. Instead of too little being done for them, too little is done by them; they have not to "rough" it as the poor labourer's child has to rough it. Everything is not found for the labourer's child as is found for these children. They are not thrown enough upon their own resources—everything is done for them. They are waked in the morning: they are bathed so many times a week in most workhouses, hot and cold water laid on. If they should be poorly the doctor calls every day, or mostly so. Their food is regularly supplied; three hot meat dinners every week and one cold meat one, and three hot soup dinners. Some are taught knitting, others netting, some shoemaking, others tailoring. A cow or two is often kept, so that they may have good wholesome milk, instead of contract sky-blue. Their clothes are far superior to those of the ordinary labourer's child, and so, indeed, is their diet, and so is their bed and their bedding. Large pieces of land are bought or rented as much for the purpose of training the children in husbandry as for the purposes of profit. If the training of these children is in some of these workhouses not sufficient to enable them to rely upon their own energies in after life, the remedy must be found, I think, mainly in more judgment, more discretion, more interest, more common sense, first in the master and matron, and next in the teachers and instructors. The constant bickerings and squabbings between the officers in most large workhouses is well known to all connected with the administration of the poor law, and this militates very sadly against the welfare of the youth. If either officer is seen to digress in the least from the strict letter of the consolidated order of the Poor-law Board (though from the very best motives and with the best intentions) he runs the risk of being reported on the following board day. Each one is too often jealous of the other, and the children may suffer in consequence, and that many children do suffer in consequence is to be gathered from the fact that, while all these workhouses are governed by the same general laws, and under the control of the same Poor-law Board and of poor-law inspectors, you will find in workhouse A the training of the children does not lead to their being dispauperized, while in workhouse B scarcely a single instance is to be met with of failure, but active, honest, and thrifty young men and women are the result of the training they have therein received. The secret of success is this. Obtain a master and matron who have their heart in the work—good kind Christian people, but who do not come to the situation altogether for the sake of the salary that goes with it, but who will look after the orphan, the friendless, and the (otherwise) destitute child as if it were their own; who pride themselves on the number of children that they have been in great measure the means of sending out into the world ready and strong enough to grapple with the world's trials and difficulties, with good common sense and a supply of what we call "nousé;" who teach the children to look to them not as their master but as their friend; who invite them to write to them occasionally when they leave the workhouse, and to tell them of their success or failure, as the case may be; who invite them, when on leave or holiday, to come and spend a day or two with them, even though it is at a workhouse (in the so-called "vicious" and "contaminating" atmosphere, of which, I think, there has been much exaggeration); who will advise them as to their

clubs or their savings' banks; who will entwine themselves into their confidence, and who will (like the Great Master) never leave or forsake them. I have known several such masters, several such matrons, thank God; and not only so, but I know several such now in the active fulfilment of their duties. With such a master as this over the workhouse, and over large workhouses, I should like to see many gentlemen, lady or clergy, presiding, and there would be no such need surely of endeavouring to persuade Boards of Guardians to incur still further expenditure for the formation of the (3rd) district schools into which all the available children of several neighbouring workhouses would be consolidated. Into a description of these I need not go. I know well that many of our workhouse school inspectors as well as poor-law inspectors advocate the establishment of district schools, such as Farnham and Hartley Wintney District School, and Reading and Wokingham District School; or as Central London District School with 1,100, or the South Metropolitan District School with 1,000 children. For the children of London or of other large cities these schools are a necessity. The requirements for earth, air, and water, for space, all demand it. Their health generally make it an absolute necessity to remove them from the city. The results, too, of the training in these schools, as shown in the last report of Mr. C. Tufnell to the Poor-law Board, are of a very encouraging character. Some years ago I was a strong advocate for district schools, but time and experience have led me to feel the necessity of closing the "capital account" for more buildings and consequent increase of "establishment charges," and of developing the means that we already have within our reach. I think also that the advantage to the children of having them *near* to those who are most likely to have "sympathy" for them and to find places for them, *near* to those who, perhaps, knew their fathers or their mothers, and thus keep up rather than sever parochial ties and ties of friendship between them and their more prosperous neighbours, is great. There is much good in these district schools, nor can I doubt such high authorities as my friend Mr. Carleton Tufnell and others concerning them, but, to my mind, large masses of children are productive of much evil, and when I know that in reformatory schools and in industrial schools it has been generally held, not only by the managers, but also by the Government inspectors, that no more than fifty should be collected under one or the same roof, in order that as much of the house and the family influence between the boys and the teachers as is practicable should be kept up, I cannot recommend the guardians of the poor (but who are also guardians of the public local-rates) to incur an expense which is by no means a necessity. It must also be borne in mind that you can only send your orphans and friendless and deserted children to these schools. You must always *still* have a certain number of children in the workhouse, namely, the "ins and outs" as they have been called—those who come in for a very short period of time, and who are liable to be taken out at any minute by their parents; and others who cannot go to a district school. There remains (4th and last) the boarding-out system as practised in Scotland for many years past, in Bath under the able supervision of Col. Grant; at Warwick, in the Thornbury Union; at Chorlton, Caistor, Horncastle, and a few other unions. The nearest examples to us are to be found at Christchurch and Ringwood on one side of us, and Eton on the other. In England, however, this system of farming out, or "boarding out," as it is now called (orphan and other children with foster-parents), has not yet had sufficient trial to enable us to form a decided opinion upon it. There seems much to recommend in it, but unless thoroughly well looked after, and closely and continuously watched, with a searching system of frequent inspection—no second-hand contracts, no under-letting—it is open to frightful abuses. The reports of Mr. Bowyer, of the eastern and midland district, and of Mr. Wodehouse, of the northern district, and Mr. Browne, of the western district, in the last annual report of the Poor Law Board, all touch upon this new method, and there is a very full report of the Poor Law inspector, Mr. Henley, entering minutely into the boarding out as carried out in Scotland, as well as in certain unions in England. With regard to the system as carried out at Eton, Mr. Henley states that the training, both moral and physical, is successful, and the children thus reared are likely to be absorbed into the population, and *not* to become paupers. The cost at Eton seems

to be about 3s. to 4s. a week, exclusive of 20s. to 30s. for outfit. At Christchurch it has only been tried a few months, but at Ringwood for a much longer period. This much is certain about it, and the same may be said of all the four methods of training pauper children—that in each of the four systems to which I have called your attention there is much good to be found when efficiently, honestly, and sensibly worked. It is advantageous to have more than one plan as our universal type. Let me now offer one or two practical suggestions. We, as guardians, want rather more freedom and discretion afforded us in the matter of educating our pauper children than the Poor Law Board at present allows us. Our children, trained in workhouses, though with better clothing and better food than can be obtained by those of the ordinary agricultural labourer, generally appear to suffer from want of that liberty and space which are so essential to their healthy development of body and mind. It would be well to break down these barriers, and give us permission to put out, either on loan or hire, as day-workers either on a farm or elsewhere, those who are preparing for their first situations in life, allowing them to come home to the workhouse as their natural, and, indeed, only refuge. Again, as children, in the small workhouses go out to the neighbouring village or national school, so let the ordinary labourer send his child (if he should live near, and wish to do so) to the school in the workhouse, on payment of the ordinary fee. Again, let the weak-minded and idiotic children, *not* the strong and healthy, be removed into an asylum for juvenile idiots, the building of which should be at the national, and not at local cost. Also, let the schoolmaster's salary depend more on the *results* of his training than on the number per head committed to his care, which militates unfairly against small houses. Again, let us have reliable returns, as far as they can be ascertained, of the success that has in after years attended the training of the children under each of these systems. I hold one that has been fairly kept for the last 20 years in a small union, and the result shows that a small workhouse *can* be a good training school. Of the training of *out-door* pauper children I have only to wish that the order of the Poor Law Board were made more stringent upon us than it is, that no out-relief be given to the children of out-door paupers unless they attend some school, if practicable, and that school fees be made *always* part of the relief. After all, the gentlemen Boards of Guardians may do much, and the officers both in and out of the house may do much, but the co-operation of others, the ladies and gentlemen who *have* the *time* and the *will*, and the *sympathy* to assist in the great work of befriending and benefiting and assisting our poorest children is most urgently needed. I believe that the present Poor Law has sadly dried up many springs of charity amongst the rich, and loosened the bonds of parental and filial affection amongst the poor; but let us hope that such meetings as this will call public attention to some of the wants of our poor orphan and destitute children; and whether by committees of visitors in the workhouses, or district visitors for our villages as well as towns, kind Christian friends will be forthcoming, who will co-operate with the Poor Law Guardians and others in improving the condition and brightening the future of our pauper children.

The Rev. Mr. POLE remarked that in their union (Kingsclere) the proportion was two-thirds State children, or children deserted by their parents. In the matter of training, the results in that union, which was a small one, were not unsatisfactory, and the proportion of those who came back to the house after leaving was very small—not, on an average once a year. Many of them did very well in after-life, and the girls were especially fortunate in that respect. Frequent applications came from Reading for girls for domestic service. He thought the training had better be left in the hands of the guardians than to district schools; and they would do much better in keeping their union school children as much as possible to themselves. He did not think the boarding-out system adapted to their purposes.

Mr. TAYLOR observed that, prior to discussing so important a question, it would have been better if the paper just read could have been printed, so that each might have made himself perfectly acquainted with its contents. Mr. Portal did not appear friendly to district schools; but he (Mr. Taylor), as a Guardian of Reading Union, and having known the work of a district school for sixteen or seventeen years, and having

seen that children educated in it had received a sound education at an economical rate, and had afterwards been well placed out in life, rarely appearing again as paupers—he wished to state his views, and to show that, though there were difficulties connected with district schools, the cost of maintaining and educating these children had not been excessive. Mr. Portal spoke of the cost of Eton children being about 3s. or 4s. a week, exclusive of the 20s. or 30s. for outfit. At the school he (Mr. Taylor) referred to it had only been 2s. 4d., and 7d. a week for clothing. The boys left at an early age for agricultural service, and the girls for domestic employments. Some of them got on in life afterwards as well as those children who had never been in a union.

Mr. TUFNELL said there was such an opposition to district schools in the country that he despaired of ever seeing them generally adopted; but, so far as his experience went, the results obtained in district schools could never be equalled in workhouse schools. Their object was to prevent hereditary pauperism as it once existed, and he believed the district schools about London had stopped it entirely. The great difficulty in all schools was to know in what industry boys should be employed. In these district schools they had tried every possible one, and experience had shown it to be that which none of them would ever have imagined without such experience. It had been found that the employment best adapted for pauper children was music. These children were sent into the army, and he never knew of a single instance in which a boy sent out as a musician ever returned. He was acquainted, too, with several clergymen who were pauper boys in some of these schools, and there were others in the army doing well as non-commissioned officers, and one was now expecting to get his commission. These observations applied more particularly to orphan children, and this showed that the best way of dealing with young paupers was to send them from their own parishes, and so remove them probably from the influence of degraded parents. If he could have his own way he would send every boy from his own parish. There was a great difficulty with respect to the training of girls, who sometimes failed in industry, sometimes in morality. This demoralization was caused by mixing together, and he showed more particularly how it was brought about. He recommended the plan of a half industrial, half intellectual training. He thought there was no reason for limiting the number of non-criminal children assembling together for school purposes, but others should be restricted in number. A parent could at all times remove a child from the guardian's care. He should like to make them responsible *in loco parentis*.

Mr. MARX observed that children were sent out from the Alresford Union as agricultural labourers at the age of twelve years. Would Mr. Tufnell inform the meeting at what age the generality of boys left the district schools referred to?

Mr. TUFNELL admitted that the boys left the London district schools somewhat late, but a London boy of fourteen was not larger in growth than a country boy at twelve. They were weaker, and were half-starved before they entered. One country pauper child was equal in strength to two or three Londoners.

Mr. SCLATER was strongly of opinion that district schools were much more adapted for towns than for country unions. The Chairman, Vice-Chairman, and others present, could not control the strong opinions and prejudices of Boards of Guardians, and therefore he thought it was almost useless to discuss the question. He agreed almost entirely with the paper read by Mr. Portal, but he thought one point had been pressed rather too far. He appeared to think that pauper children, when out in place in the world, were rather looked down upon. That feeling no doubt prevailed many years ago, and it had been strongly painted by Mr. Charles Dickens; but, in his opinion, the feeling was now a thing of the past.

Mr. BRONCKER asked Mr. Tufnell if a band could be organised in a small union.

Mr. TUFNELL replied that it could not, and that was another advantage of district schools.

Sir NELSON RYECROFT enumerated several instances of boys who had left the Sevenoaks Union, in Kent, for various employments, and who had been tolerably successful in after life. Tailors and shoemakers did not appear to have enjoyed an equal amount of success.

Mr. PORTAL produced written documents, one from Mr.

Hoare, of the Bradford Union, and one from Mr. Best. On the subject of music, the first named gentleman spoke approvingly; but Mr. Best feared that it was likely to induce boys to lead a vagrant life. He recommended agricultural labour for boys, and that girls should be employed in laundry and domestic work.

Mr. PALMER, referring to Mr. Portal's remarks with respect to those children who were often weak in body and mind, and who were not the best sample of children to operate upon, alluded to the school at Wargrave, and said he did not believe that any private school in England could produce such a report as to health as could be furnished with respect to that school. With one slight exception, there had been only one epidemic in 20 years. One advantage of district schools consisted in the removal of children from the evil influences in which they might have been brought up. In those schools, too, the children were surrounded by social influences which it would be impossible to obtain in a workhouse. At Wargrave, people in the neighbourhood frequently invited them out, and they mixed with the residents of the village. When they left school they departed much with the same feelings as those entertained by children leaving a boarding school, and if they wished to surround children with social influences, and to destroy that workhouse feeling, the best institution possible at present was the district school. The farming-out was another plan, but it was questionable whether or not it was a good one; for (as Mr. Portal had remarked) it would require a great deal of supervision to keep things from going wrong.

Mr. PORTAL said he had been careful to show that under each system by which they took the charge of children they would find something good, but none was perfect. Yet, considering the conditions under which we live, the high rates, &c., he thought this was not the time to encumber themselves with large expenses for educational purposes when probably they had ample means for educating the children. He had been somewhat misunderstood with respect to district schools. He would hesitate to provide them in those districts which did not possess them—not that he positively objected to them: With regard to orphans, the theory was that these children were the children of the State, and they could not do too much for them. Mr. Portal concluded by moving the following resolution—"That, though great difficulties exist in establishing district schools in agricultural districts, yet, where practicable they deserve encouragement; and that idiotic and weak-minded children should be removed from all schools to central asylums."

The resolution having been seconded,

Mr. DAVIS said he should like to have had a statistical account of the percentage of results; for it was only by such statistics that they could arrive at any substantial conclusion. Mr. Portal had remarked on the condition of workhouse boys, but this was to be attributed to their circumstances early in life. They were often born in sin, of diseased parents, the outcasts of society, and, he believed, if they took all things into consideration, that the present system was by no means a bad one.

Mr. SCLATER asked Mr. Portal whether, when he suggested that idiots and weak-minded children should be sent to an asylum, he meant to include all children of that kind? Some of these were in the workhouse for a short time only, and he thought the latter portion of the resolution should be confined to those children never likely to be removed from the workhouse.

Mr. PORTAL, replying to Mr. Davis, said he had rather a weakness for statistics, but he had not provided them on this occasion, because persons were not able to retain them in their memory. In all well worked schools he believed it would be found that at last 75 per cent. turned out well, and were dispensed in after life. With regard to the last portion of the resolution, he apprehended that there could scarcely be a doubt that these idiots and weak-minded children were a great drag on the masters. They were miserable and unhappy, but at Earlswood they were cheerful and contented. He was willing to withdraw that portion of the resolution.

SEVERAL VOICES: "No, no."

The Chairman put the resolution to the meeting, and it was carried intact, no further dissent being shown, and the meeting then proceeded with the reading and discussion of other papers set down in the list.

VAGRANCY.—ITS CAUSES AND PREVENTION.

Mr. T. B. L. BAKER (Hardwicke Court) then read the following paper: I am much honoured by being asked to write, for your consideration, a ten minutes' paper on "Vagrancy: its causes and prevention." But to do so I must be very brief. If, therefore, I give my opinion *quantum valeat*, briefly and decidedly, I trust that my doing so may be imputed not, to want of courtesy, but to want of time. The causes and the character of vagrancy are so differently stated by writers of great experience in different parts of England that I can only come rather unwillingly to the conclusion that we have, not one set of vagrants travelling throughout the whole country, but several distinct species, each keeping to their own district. In Gloucestershire and the neighbouring counties we find nothing of the highly amusing and poetical vagrants described by Mr. Doyle, in Cheshire, nor of the burglars or organised robbers described by Mr. Dunne, in Cumberland. But, in truth, all our accounts of the class appear sadly liable either to error or misconstruction. Even our statistical returns have been sadly misunderstood. Many readers of the judicial statistics took alarm at the returns there given, and believed that the ratepayers had to maintain an average of 32,000 vagrants, and could not understand the Poor Law Board describing them as only 6,000. The return, indeed, of 32,000, which was intended to include tramps with vagrants, has been found on examination so unsatisfactory that it will be omitted for the future. This want of information as to the numbers and character of the class we have to deal with is greatly to be regretted, and I fear we shall not get a satisfactory solution of how to prevent them till we get a more accurate knowledge of their numbers and habits. This, I think, may be acquired by one of the modes of prevention which I propose, if it be ever fairly carried out. The causes of vagrancy in my part of the country, I think, are easily stated. A man falls out of work either from slackness of trade, which causes not only the most idle or the most drunken, but also the oldest and weakest of the gang to be discharged, or even at times of full work an idle, or careless, or stupid man will be occasionally turned off. These usually try, in the first place, to get employment in the same town, but if they fail, and find their money and credit exhausted, they set out to seek it elsewhere. For a time they may seek for it honestly and diligently, but those who fail in getting employment quickly—sleeping in filthy vagrant wards as, alas! most of them are—insufficiently fed—wet through by day and with small means of drying by night—become contaminated in body and mind, and, finding from their companions the advantages of begging, gradually join the ranks of the older mendicants with whom they are obliged to associate. It has been asserted by some that most of the vagrants are the sons of vagrants born and bred to the trade, but I think this is sufficiently disproved by the fact that in July, 1858, there were only 2,069 vagrants in England and Wales, as shown by the Poor Law return, while in 1867 there were 5,248. And it is clearly impossible that the odd 3,179 could have been born and bred in the time. If I am right in these causes they ought to be some guide to us in finding a system of prevention. It has been commonly said, that if we could prevent the public from indiscriminate alms-giving beggars would cease, but few even pretend to tell us how the public are to be so prevented; yet unless we can at least greatly diminish the alms-giving we shall do no good. I believe, however, that this is quite feasible if we carefully consult the public feeling. We must, in the first place, take the utmost care, and let the public see that great care is taken, that no man, good or bad, shall be allowed to starve—that the workhouse shall give an ample security that every person who comes to it without food or money shall be quite secure of food and shelter. If this be carefully done many will cease to give to those of whom they know nothing, and the number will increase year by year. But if all vagrants are to be lodged and fed means must be taken to avoid this kindness becoming a temptation to idleness, without at the same time using a degree of harshness which will incline the public to pity and assist them. I think we may fairly assume that there are some vagrants, probably few in number, who travel entirely for the purpose of going direct to some place where they hope to find work or return to their parish—that

these few are anxious to make their way thither at their best speed, and that these generally deserve to be helped on the way. We may also assume that there are others, probably by far the major part, whose object is merely to live idly from day to day, and these, all will agree, ought to be sternly repressed; but neither the charitable public nor the relieving-officers can tell with any certainty whether a vagrant belongs to one class or the other. A system has been suggested of giving to every man a ticket certifying where he slept on the previous night, and to what point he professed to be going. If he then kept to his true line, and walked a fair day's journey in proportion to his strength, he should be relieved from any task-work and fairly treated. If he brought no such evidence he should be compelled after each night to perform a task, the severity of which should be increased till it was found sufficient to deter the idler. This would exactly meet the difficulty, the public would have confidence that the honest traveller would be relieved without hardship, and they would not object to hardship being enforced on the idler. On the other hand, the walking a full steady day's journey day after day would entirely destroy the charm of an easy vagabond life. It would also have the important advantage that it would enable us to know the course of our vagrants. But this system has failed, and has had to be given up for the present, not as I believe from any weakness in itself, but simply from the difficulty of getting it properly carried out. To deal with such an evil as vagrancy it is necessary to have a nearly unanimous action over a large extent of country. It is necessary also to make the labour, where it is inflicted, real and severe; but, after we had got three counties to adopt a far higher degree of uniformity than had previously been arrived at, I found that out of 37 unions 24 gave from 12 to 18 ounces of bread, and 13 gave from 8 to nothing; 8 required four hours of labour, and 9 gave none at all; 6 had baths, and 32 had none. From such a want of uniformity the system naturally failed. I endeavoured to get permission from the Poor Law Board that, where this system was established, and where all honest travellers were altogether relieved from labour, those who could not show that they were travelling straight might be called on for a six hours' task instead of four; but, failing to obtain either uniform action or a power of enforcing labour, the plan had to be abandoned. I cannot but believe, however, that in due time the care of vagrants must be altogether made over to the police, and the expense paid out of the county rate, as was suggested in 1868 by her Majesty's Poor Law Inspectors, Sir John Walsham and Mr. Corbett, and urged in Parliament by Sir Michael Beach, then secretary to the Poor Law Board. When this is done uniformity of action will be secured; and the ticket system will, I think, work well. But, though we have been unable to get that united action which alone can enable us to cope with such an evil as vagrancy from the different boards of guardians, we and several other counties have obtained some degree of unity of action from the magistrates. At the Trinity Quarter Sessions, 1869, our magistrates agreed to adopt the system which had been found to work well in Cumberland (described in a Parliamentary paper, "Vagrancy, Cumberland and Westmoreland," printed April 22, 1869), and had been more recently tried with good success in several other counties, viz.: that of the magistrates in quarter sessions recommending to their brethren throughout the county that every person proved to have begged of any one should be sent to prison. As soon as this resolution was passed the police exerted themselves vigorously, a large number of beggars were sent to prison, generally for ten days each, and the effect has been that the vagrants properly so called (that is to say those who sleep in the vagrant wards of workhouses) have diminished by about one-fifth. But the far larger number of tramps who used to pass my lodge on the road from Bristol to Birmingham have diminished by more than half, and the nuisance to the poor dwellers by the road-side is greatly abated. This system has been adopted by ten counties entirely, and by six others partially, before last October, and in all with similar good results. This last plan is simple and easily carried out. It is also sound and unobjectionable in principle wherever the rule is carefully maintained of securing the absolute necessities of life to all who are destitute. So long as this is known by the public to be done, they will more and more support us by withholding their misplaced charity. Yet, I believe that we can only hope for a real suppression of

vagrancy by the first plan of tickets where the whole care of this class is placed in the hands of the police. There is a third system to which I had not intended to revert, because I thought that the scheme of a neighbouring county would have been so well-known to you as to have needed no remarks of mine. But, however well-known to you, I must mention the scheme of my friend Captain Anyatt Browne, chief-constable of Dorset, of providing by private subscription a supplementary assistance to all travellers, which, I understand, has had the effect, which might have been expected, of inducing the public to withhold their alms from people of whom they know nothing. This again is a sound principle. It has the slight disadvantage of depending on voluntary subscription, and being, therefore, somewhat less reliable than a rate support, and it is less punitive than I would wish towards the professional tramp; but it is good and independent, and would continue to work well with either, or both the others. Forgive my asking your consideration of one other small matter. Many gentlemen, who have not gone closely into the statistics, imagine that the cost of vagrancy is a heavy item in the poor-rates. This is not so, and our object in repressing vagrants, is not the cost of the rates, but the rescuing men from a vicious life. If the most liberal allowance of food, fuel, soap, &c. that is given at any union were made universal throughout the country, the cost would then amount to about one four-hundredth part of the total rate, so that a farmer who would pay twenty pounds of poor-rate, while the most liberal allowance was made to vagrants, would pay £19 19s. if all aid to vagrants were refused.

Mr. W. PORTAL said he believed he should express the general feeling of the meeting if he thanked Mr. Baker for coming from so great a distance as Gloucester that day in order to attend the conference, and thus help them to inaugurate their first meeting. The subject of vagrancy was one of extreme importance, especially in Hampshire at the present moment, for the Earl of Carnarvon had given notice that, at the next sessions of the county magistrates, he should be prepared to bring some notion on vagrancy, more or less definite, before the Court, with the view of putting a stop to its great increase in the county. This increase was shown in the returns from all the unions. A great many gentlemen had most kindly forwarded to him (Mr. Portal) every half year a half-yearly statement of the condition of their unions. It was much to be desired that they should all be better informed on the following points: Population and area, which were generally omitted from their half-yearly abstracts, but which would be found very useful; and, also, not only the number of pounds, shillings, and pence expended, but the number of persons relieved during the past half-year, and the corresponding number for the previous half-year. Furnished with these facts, those at a distance would be much better able to judge by the returns, and when they met at that conference to compare notes for mutual advantage. He regretted its necessity, but he thought they would be obliged to revert to the system of handing over vagrants to the police. Some of the vagrants had acknowledged that they had never done a day's work in their lives, and declared that they never intended to do so.

Mr. TAYLOR referred to the efforts which had been made to check vagrancy in Berkshire. It was arranged that tramps should receive tickets through the inspector of police in the district, under the supposition that if they presented themselves before the police their number would be reduced, and thus be the means of effecting the object in view. With respect, however, to Reading, the results had not been in accordance with the wishes and expectations of the committee, who devised the scheme. After a time the number of tramps increased considerably; yet, in addition to the necessity of obtaining these tickets, a certain amount of labour was imposed, and he believed the plan was fairly carried out.

Mr. WHITCOMBE, speaking of the Portsea Union, said that in 1850 the number of tramps admitted was upwards of 5,000 but the numbers progressed, till, in 1862, they had increased to 15,155. The Guardians, finding that they increased so rapidly, co-operated with the Watch Committee of the Council, and from that time the inspector of police was paid a small salary. He gave tickets to these tramps, without which they could not obtain a night's lodging. The consequence was that, twelve months afterwards, the number was reduced to 4,735, and, in the year ending Lady-day last, the number relieved during the year had been reduced to 3,994. The

Guardians, therefore, could bear testimony to the advantages resulting from such a system being carried out. They had a population of nearly 100,000, and the vagrants were always treated to a bath.

Sir M. H. BEACH said, he had taken the greatest interest in this subject, and he thought statistics, from the different methods adopted by the various authorities who compiled them, were very fallacious things; but the statistics of the Poor Law Board respecting vagrants were taken on one particular night, and compared with those taken on that particular night again another year. The whole number of vagrants found in the casual wards on the 1st of July, 1867, only amounted to 3,854, but on the 1st Jan. in the following year the number was 4,357, and in July reached 6,933. On the 1st Jan. 1869, it decreased to 5,346, and in July to 5,104, while in Jan. 1870, the figures were reduced to 4,147 only. This, he thought, did not show vagrancy to be a great and growing evil. The main reason in favour of the local administration of the Poor Laws—namely, that the guardians were acquainted with the circumstances of applicants—was not one that applied to these vagrants. They belonged to all parts of the country, and were largely composed of the criminal or idle class. For this reason he considered their care and management should be put into the hands of the police, but if this were done it was obvious that it would be necessary to alter the area to bear the costs. The good result of this he showed from an actual test taken in London. He did not wonder at the statement of Mr. Taylor respecting Reading as to the increase of vagrants after police supervision. In Gloucestershire the authorities fitted up certain cells in a disused prison for the reception of vagrants, and this plan secured the advantages of the separate system, for if vagrants liked anything it was herding together. A superintendent policeman was appointed manager of the wards, who had 2s. a week for his trouble, and the result of effective management was curious. At first, however, the superintendent, being new to the business, the number of tramps increased, but subsequently they decreased considerably. He would remind them that it was not fair to take the effects of a system from an isolated instance, and whatever system was taken it should be uniform throughout the country. They would then know what the results were likely to be. If Mr. Baker's system could be carried out it would be of the greatest importance, as securing relief to any one travelling in a *bono fide* way in search of work. In any case he would have sufficient to keep him from starvation, and it would have this important result—that when the public knew that no man need starve they would button up their pockets, and he thought that would be dealing effectually with vagrants. Mr. Goschen had conceived that it would be possible to confine habitual vagrants for 48 hours; but he (the speaker) feared this proposition would be a dangerous one to adopt; for it would do away with the benefit of the public knowing that any man might receive relief when utterly destitute. Although vagrancy was diminishing, the question appeared to him to be one of great importance, and nothing could tend better to a solution of the difficulty than conferences of that character, where they could meet and take counsel together.

Mr. B. BAKER said the best method of employing vagrants was where there was a well at the bottom of the garden, and a large tank on a rise at the back of the house, to set all vagrants to carry 80 buckets of water in the morning before they left. That was work anybody could perform—it required no skill. Stone-breaking might be done in some places, gardening in others; but there certainly was a difficulty in providing profitable employment.

The Rev. Mr. POLE observed that the working man never objected to work. It was the professional tramp.

Sir M. H. BEACH said it was not correct to say pauper labour could not be made profitable. He had known a clear profit, though small, on each vagrant who had come into the union.

Mr. MARX said at Alresford it was found that flint-crushing was not unprofitable. An able-bodied man was required to crush a bushel of flints before he received his breakfast.

The Rev. Mr. POLE remarked upon the destruction of clothing by tramps, and inquired as to the best remedy. They did not regard punishment, and he did not think they were sent to prison for more than 21 days.

Mr. LEEs alluded to the increase in the number of vagrants in Hampshire, hoping that the discussion would result in an expression of opinion by the meeting that they should be handed over to the police.

The CHAIRMAN suggested the passing of a resolution, providing not only that vagrants should be placed under the superintendence of the police, but that there should be some interchange of communication between the police of various counties to act in concert together. Such an expression of public opinion would show what the feeling of the country was, and if his suggestion met with approval he would embody it in a resolution.

Mr. BAKER in reply, said that the employment of a police relief officer in Essex had produced an extraordinary effect at first. Since it had been established it brought the number of vagrants down in two or three unions from 32,000 to something like 1,200, in the course of a few years. Then it was a new thing, but since that it had been tried all over the country and had become like a scarecrow, which at first kept birds off, but subsequently did not frighten them. With regard to the question of what they were to do with vagrants who tore up their clothes he would remark that two years ago he visited one of their workhouses in Gloucestershire (Thornbury), where he stayed all night. During the night a man had torn up his clothes, and next morning he was invited to see the man let out. He was first made to pick oakum, and then a sack was procured. The officers cut a hole in the bottom of the sack, two at the side, and then put him in the sack, with his arms thrust through the two holes at the side, in which condition he was sent out. That was a perfect cure. It made a very strong impression, and since that there had never been a case of clothes tearing in the Thornbury union.

The CHAIRMAN then proposed a resolution to the effect that all vagrants should be placed under the superintendence of the police, and that the Chief Constables of various counties should interchange communications for the purpose of acting in concert, so that the destitute might be relieved, the habitual vagrant punished, and that the necessary cost be defrayed by the borough or county rate, which was carried unanimously.

OUT-DOOR RELIEF.

Mr. MARX read the following paper. Having been requested to place before the meeting some remarks on out-relief, a subject which will, I hope, provoke a useful discussion to-day, I venture to request your patience whilst saying a few words on pauperism generally, and on the direction in which we must look if we desire to find a remedy for it. The changes which occurred in the use and holding of land chiefly during the reigns of Henry VII. and Henry VIII. converted the peasantry from cultivators into labourers. Under that great change England might still have remained free from pauperism but for later errors. Judging from the history of Holland and England, the present painful and disgraceful state of pauperism in which we find ourselves was the result of extravagant expenditure on foreign war, and consequent debt, which led to the substitution of indirect taxation on the necessaries of life for direct taxation upon land, then almost synonymous with property. Thus the source of pauperism was the shifting of taxation from the land of the rich to the labour of the poor—from the shoulders of those who had property to the backs of those who had none. We all know that want and distress are inevitable, but it is otherwise with pauperism, which is a disease of man's creation, and, once called into being by a bad system of laws and taxes, it spreads gradually and continually like an infectious disease. Although the current belief amongst us is that poor laws, like ours, lessen poverty and prevent starvation, they probably multiply both. The poverty and misery permanently existing in our great cities is without example in any prosperous country, and the inefficiency of the poor laws in time of severe pressure, as for instance during the cotton famine in Lancashire, or during the last winter in London, is indisputable. In fact, the resource which should be reserved for an extreme case, viz., the paying of public money for the support of the poor, now only avails under ordinary circumstances, and we have to return to the natural remedy, namely, private charity, in any great crisis. There is reason to believe that more people die of want and its conse-

quences in London with a poor law and three millions of inhabitants than in Italy with twenty millions and no poor law. It is remarkable that those who live where there is a legal and compulsory rate for the support of the poor cannot believe that any well-governed country can get on without such a system, whilst those who live where there is no such provision are at a loss to understand how it can be necessary. In Scotland, where a law for compulsory assessment has long existed, although as late as 1815 it appears to have been enforced only in some exceptional parishes in which the voluntary system had been allowed to fail, the English system is now thoroughly established; but yet cases of death from want are as likely to occur as under the old state of things, when a dole of meal was given only to the poorest out of the money collected in the kirk. The consequences of the compulsory system are so fatal to private charity that the mere proposal to adopt it caused the weekly collections for the poor to fall off considerably; and, as poor laws had come to be regarded as the proof of civilisation, even the success of Dr. Chalmers in Edinburgh failed to convince the Scotch of the value and efficiency of their ancient habit of supporting the poor by local collections and unpaid administrations. One difference between a country with poor laws and another without is—that in the former there are one or more paid relieving officers in a district, whereas in the latter every man and every woman is an unpaid and self-appointed relieving officer. Of late years many taxes have been taken off the necessities of life, and the peasant is no longer bound down to the limits of his parish. These changes, combined with the enormous expansion of commerce brought about by the gold discoveries, and the immense amount of labour which has been employed in making our railways, have caused the evils of pauperism to be less apparent, and to grow upon us less quickly; but communism now rampant in Russia, powerful in France, and growing in Germany, will come upon us, either by gradual steps or by sudden revolution, unless we give up palliatives, and seek in earnest to rid ourselves of the disease of pauperism. To effect this we have to understand its causes, and to investigate the condition of countries where it does not exist. We may then be induced to revise our land laws and the system of government and taxation which have prevailed since the Great Revolution two centuries ago. Having said thus much on a somewhat distasteful and unpopular subject, I turn to the case more immediately before us. Can we prevent the present law of out-relief from increasing the distress which it was designed to prevent? I fear not. It is impossible to affirm that the present law, aided as it has been by circumstances alluded to before, viz., the discovery of gold and the formation of railways, and also by improved schools, allotments of land, and an increased number of benefit societies, has raised the agricultural labourer to a condition of wholesome independence and manly self-trust. The legislation of 1834 swept away many abuses, and saved the owners and occupiers of land from ruin; but, in spite of it, and many subsequent acts, and all the orders, counter-orders, and exceptions of the Poor Law Board, the peasant is as ready as ever to draw what he still calls "parish pay," and often objects to join a benefit club on the ground that "it would only save the parish." At the same time, an increasing number of artisans, of small tradesmen, and of other persons who have friends able to maintain them, are constantly trying to obtain out-relief. Many who are above the condition of those who depend on their daily labour for their daily bread have no shame in asking for out-relief, little hesitation in obtaining it when it is not a necessity, and no thought that the rates are extracted from people as poor, and often poorer, than themselves. All will admit that much of the money spent in out-relief really acts as a rate in aid of wages, and keeps down the latter to its lowest point, thus deeply injuring the agricultural labourers, particularly the good and prudent, and indirectly injuring those who employ them, for the men work short hours in Hampshire, and, except when at task work, give inferior labour for inferior wages. Artisans, who are better able to take care of themselves, have not suffered in the same proportion. They have succeeded, by trades combinations and emigration, in keeping their wages at a high figure, although they are at the present moment suffering seriously from want of employment—a want which would be partially removed if they would accept lower earnings. A vast number of them provide for illness and old

age by saving or by benefit clubs; but many of them trust to the poor law, and come for out-relief in case of sickness, either immediately or after a few weeks. The evils of out-relief in destroying the self-reliance of the pauperised classes, and of undermining that of the class just above them, was to have been averted by the workhouse test. This test, however, has failed, and is almost in abeyance, as the exceptions allowed by the Poor Law Board are acted upon and the general order is not. Boards of guardians are naturally reluctant, *where the option is left to them*, to take a step which may force people into the union house against their will, and break up the home of a family. They also shrink from the greater cost of keeping a family in the union house. I am sorry to say that the amount of money raised by benefit clubs in agricultural districts, although much increased, is still insignificant as compared with the sum spent in out-relief. As it may be useful to compare the out-relief given in different unions, I subjoin a table of that given at Alresford:

1. A sick man with a family receives about the ordinary amount of wages, chiefly in money and partly in bread.
2. An able-bodied widow with children receives for each child one shilling and a gallon of bread weekly.
3. An old couple receives 5s. 6d.
4. An old person receives 3s.
5. A lying-in woman whose husband is at work, if there are five or more children, receives 2s. 6d. or 3s. a week for four weeks.
6. The sick have a nurse found them when necessary, and meat, wine, porter, &c., when recommended by the doctor.
7. The funeral of a grown person costs the parish from 23s. to 27s.; that of a child less.
8. An order for medical attendance is given when applied for, except in the case of persons earning more than ordinary wages.

The earnings of the agricultural labourer average about 14s. a week, but, with the exception of carters and shepherds, who are supposed to be better off, we take their earnings at the ordinary rate of day-pay, say 10s. in considering their means of supporting a sick wife or child. If a man belongs to a benefit club, we treat him as if he had half his club allowance, considering the other half as a means of supplying him with sick comforts, and so more quickly restoring him to health. The cases with which we have the most difficulty are those of:

1. Men partially disabled who apply for out-relief, and for permission at the same time to earn what they can.
2. Children of able-bodied men in full work for whom meat, milk, &c., is recommended by the doctor.
3. Artizans and others temporarily ill, whose ordinary earnings are from 18s. to 30s. a week.
4. Widows with children occupying a house rented at £8 or £10 a year, and carrying on some business which they say does not enable them to support their children.
5. Persons unable to work, but having friends able or legally bound to support them.

If the responsibility of supporting the last class could be made to fall in the first instance on the relatives, and on the union only when these have proved their inability, a large amount of out-relief would be struck off the books. At present the relatives frequently escape their liability. Another improvement in the law would be to make relief to persons not living in the union illegal, except in the cases of schools and public institutions. The idea of charity still clings to out-relief, which in all the above cases is often given where it would be better systematically to refuse it. If the labourer could be taught to depend upon himself, and not on the rates, he would receive better wages, out of which he would be able to put by for sickness and old age, as he now puts by for fuel, rent, and clothing. It is quite clear that distress is by no means in proportion to the largeness or smallness of the earnings, but rather to the want of care and thrift on the part of the receiver. Whilst the families of the armourers of Sutton Coldfield, who earn £1 a day, form a very distressed population, as the men work about three days a week, and often leave a wife and family to be relieved by charity, or by a loan from a neighbour, most of those who are present know of highly credible instances amongst the agricultural labourers, where, notwithstanding a heavy family and small earnings, the home is kept neat, and the club money regularly paid up. In

considering the question of out-relief I commend the following figures, taken from the Poor Law Reports for 1868-69 and 1869-70, to the attention of the meeting :

	Indoor-Relief	Out-Relief.
Walsingham (Norfolk)...	1868 £775 ..	£9,262
"	1869 925 ..	9,158
Atenham (Shropshire).....	1868 1,515 ..	677
"	1869 1,512 ..	659

Having been in the habit of considering that under ordinary circumstances a union was, in so far, fairly well managed where the out-relief amounted to three times as much as the indoor, I am quite at a loss to understand these figures. In the Walsingham Union the out-relief is nearly twelve times as much as the indoor, and at Atenham it comes to little more than one-third. This contrast must be owing to exceptional circumstances or to exceptional management, and in either case it ought to throw some light on Poor Law Administration. I will conclude by asking for suggestions from those present in respect to the administration of out-relief, and by placing before the meeting two questions :

1. Is it desirable that, after a fixed date, out-relief should be given in goods only ?
2. Is it desirable that, after a fixed date, out-relief should be abolished, except in cases of urgent and immediate necessity.

I was anxious to have obtained full information about the working of the Irish Poor Law, where only a small portion of out-relief is given, but have failed to do so from want of time. It must be understood in respect to the above questions that any large change in the law of out-relief must not affect persons at the time receiving permanent out-relief.

Mr. J. B. YONGE (Otterbourne) read the following paper : In a minute of the Poor Law Board, bearing date November 20, 1869, we find, "One of the most recognised principles in our Poor Law is that relief should be given only to the actually destitute, and not in aid of wages." And in the order prohibiting out-door relief we find that every able-bodied person requiring relief shall be relieved wholly in the workhouse, to which follow certain exceptions. The chief difficulty of proper administration by the guardians lies in the exceptions under which comes by far the largest portion of the expenditure, being for the year ending Lady-day, 1869, £3,677,379, against £1,546,680 for in-maintenance. The cases to which out-relief is allowable may conveniently be divided into four classes, namely, to the aged and infirm, to widows with families, to the head of the family with all dependent on him on account of his own illness, to the head of the family on account of the sickness of a member of it dependent on him, including medical relief. With regard to the aged who have become incapable of maintaining themselves any longer, I think great consideration should be given to the wishes of the persons themselves, and also, but in a somewhat less degree, to those who are infirm from sickness in comparative youth. Some have no great objection to come into the poorhouse, while others have the greatest aversion to the restraints necessary for the well-being of any number of persons brought together. The guardians should ascertain that the person is really incapable of earning a maintenance, and that there is no near relation of sufficient ability to provide for him ; under these conditions such an amount of out-relief as is found to be necessary in the locality should be granted. Indeed the opinion of the Legislature is clearly enough expressed in the provision that two justices may direct that relief shall be given to any adult person who shall from age or infirmity be wholly unable to work, without requiring that any such person shall reside in any workhouse. Next we may consider the case of widows with young families, and these also are entitled to great consideration. If the widow be a person of anything but very bad character, so as to make it desirable to remove the children from her influence in any manner practicable, the general value of home bringing up above that in the workhouse would point to the advisability of granting out-relief. But it is to be considered that the widow, if in health, ought to be capable of maintaining herself by her own exertions, and therefore any out-relief must be granted in respect of the children only. This is ordinarily done on the general rough scale of a shilling and a gallon of bread per week for each child of tender years, and if the widow,

from skill in trade or any circumstances, can do more than maintain herself, she must as far as possible support her children. There will at times occur a case in which a widow may apply for relief, being in the receipt of a pension from a friendly society. The principles of action applicable to this have been so fully laid down in a letter contained in the last report of the Poor Law Board as to give a clear guidance. They point out that an income arising from such a source can no more be overlooked than if it came from any other source whatever. And I would further observe that inasmuch as it is the bounden duty of any parent to maintain her children to the utmost of her power, such income from a friendly society could not be considered as applicable exclusively to the widow, whatever might be attempted to be set up of that kind, but must be employed in addition to her own labour, as far as it will go, for the maintenance of her children. The great thing to be borne in mind by the administrators of relief to the poor, as well as by possible recipients, is that nothing but destitution gives any person a title to be maintained at the expense of their neighbours ; that the poor-rate is not a fund to be drawn on, and to get as much out of as possible, but that it is the duty of every person to make provision and to use the utmost of their power to avoid being driven to make any call on others. These two classes are comparatively easy to deal with, except in a point common to both, and that is whether guardians should grant relief to persons legally chargeable to their union, but not resident within it. A few cases will occur when this may be desirable, but they are very rare, and should be discouraged as much as possible from the much greater difficulty of proper superintendence, and allowances should not exceed the sum found sufficient for similar cases within the union granting relief. From the impossibility of exercising the necessary vigilance by the officers of the union directly interested, these cases are more liable than most to degenerate into relief in aid of wages, with its terrible evils. With regard to all out relief, and especially with regard to the classes of persons now to follow, it must be considered that, if any persons in higher rank were assured that in case of illness to themselves or any member of their family, medical advice would be provided gratis—that, in the case of those making an income by their own personal exertion, sustenance in their own rank would be provided in case of any cessation of employment, would it not be a great inducement to spend all at the moment, and not to attempt any provision for the future ? And yet this is precisely what a system of relief unwisely administered offers to persons who have to live a life of toil and care at the best, while we all know instances that show how much is in the power of those who have the will to help themselves and keep from need of relief. There are instances of men who can earn in half a week an ample provision, yet spend all in drink, and are in destitution till pay day comes again. Should such a man fall ill, is his a case for granting the relaxation of out relief ? It is true that there is a power of advancing relief by way of loan, but what slender chance is there of getting anything back from such a man ? He might never be reclaimed, and probably would not be, but the example should be given that a man in need of medical or other aid from his own recklessness in making no provision for the future when able to do so, should not be relieved anywhere but in the workhouse. I draw a somewhat extreme case, but there are an infinite number of gradations. It is not right for a man in regular employment, with a moderate family, to be calling on the relieving officer the first moment he falls ill to supply necessities. And yet where is the line to be drawn ? It seems impossible to require such a man to break up his cottage home and bring his whole family immediately into the workhouse when he falls ill. In practice it cannot be done. Indeed, it appears politic to be rather liberal of relief in cases where the bread winner is sick, in order to restore him as quickly as possible. The broad conditions of out-relief are laid down for us, but within them lies the duty of the guardians in discriminating and using the workhouse test in such a way as to prevent the feeling that there is a sort of right to out-door relief in all cases that come within these conditions. And here I may mention how difficult it often is to arrive at a real estimate of a man's ability. Take the artisan who gets a pound a week in a town, and a labourer whose nominal wages appear in the relieving officer's book as twelve shillings a week, when, perhaps, he is in reality the best off of the two. The townsman, probably, has

much more rent to pay, has no garden, no means of making much by task-work, no thatching, hoeing, or harvest; while the labourer very likely averages in money over 15s. a week for the year, besides advantages, and the comparative condition of the two men is not such as the first glance would suggest. I think in the country that out-relief must generally be given when applied for when the head of the family is disabled by sickness, but not if a man was in receipt of rather exceptionally large wages for himself, and sons at home, or of ability to help, or if the family were light—that he should then be expected to have some provision by him, and not to ask for out-relief unless his disability continue some space of time. In towns especially there must be other elements of consideration. If the habitation be likely to retard recovery from over-crowding, or unhealthy situation, it might be better to take a man into the workhouse, even family and all, for his more speedy cure. An intelligent relieving officer may here afford most valuable assistance by making observations on the cleanliness and accommodations of the home. If a home be worth having, and show signs of care, it is always a pity and discouragement to break it up. I now come to the class of relief given for the illness of some member of the family—the wife or child, and generally consisting of medical attendance with or without the addition of nourishment. There is reason to believe that the practice of different unions has been dissimilar, and might with advantage be brought nearer together. In some places the attendance of the doctor is granted with the utmost freedom, and mischief must arise from this practice making almost the whole population paupers. The duty of providing medical attendance for a member of the family lies first on the head of it, and he has no more claim to be relieved from that duty at the expense of others than from any other. Such cases as men in regular work, with not more than two children, should generally not be allowed the attendance of the union doctor. A long-continued course of illness might cause such a drain as to produce a necessity of applying for relief at last. In that case a voucher should be produced to show that exertion had been made, such as a receipted doctor's bill, or satisfactory evidence that a great expense had been paid, not only incurred. I may also point out that there is an amount of injustice towards the medical officers in throwing on them a large amount of attendance on persons who should not really be considered paupers, and that in two ways: First, by throwing more on them than they contracted for; and, secondly, by depriving them of the reasonable payments that they should receive. And the scale generally adopted by medical men in their dealings with the poor is not such as to be beyond their means. Such a case as that mentioned above is not one of real destitution, and really a man who should neglect to provide medical attendance would render himself liable for the consequences of such neglect; and if the doctor attended a child on an order given by the relieving officer, I suppose that the father would be as much liable to punishment for allowing a member of his family to become chargeable as if he had neglected to find food. But, as this would be too harsh a method to employ in practice, the alternative must be adopted of saying, "If you like to come into the house all your wants will be provided for, but we cannot relieve you out of it." It will be observed that I am endeavouring to propose for discussion some points that may assist in ascertaining whether a person comes within the line of being rightly considered so far destitute and unable to provide what is requisite as to be entitled to receive it, and advocating the offer of indoor relief in many cases as a test, and that my opinion is that the general practice has become too easy. Take, again, the case of a domestic servant coming home ill from a good place. Guardians would hardly be justified in treating such a person as one who could have made no provision. On the contrary, there has been opportunity of laying-by against a bad time, and, if nothing has been done, such a person ought not to expect out-relief. There are other causes that should also be considered, such as the nature of the habitation, the ability of relatives to perform nursing efficiently, and the nature of the disorder; these are sufficiently obvious. Two other points I can only touch on, to show that what is commonly called the doctor's order for meat or other subsistence is nothing but his certificate that he considers such diet desirable, and that on the guardians lies the duty of decision who is to provide this. It should be far from a matter of course to allow it as relief. Also, in case of funerals, that no assistance should ever be given un-

less the funerals have been conducted in the most inexpensive manner—no expending private means on ornaments, and coming on the rates for necessities. I have lately heard of a parish, in another county, where the relieving officer gives 2s. 6d. or 3s. as a matter of course on a death. Complaints are universal of the increase of expenditure for relief within the last few years. May not a large portion be attributed to the laxity of guardians in allowing out-relief too freely, and thus engendering a spirit of running to the relieving officer for every trouble, instead of exertion to get on without assistance? It has been observed that in proportion as the amount of out-relief is smaller as regards the sum expended on in-maintenance, so will the pauperism of the inhabitants of the union be found to be less, and the population hold a more independent spirit.

The Rev. J. G. JOYCE thought it was a matter of extreme importance that every one connected with the working of unions should ascertain whether it was possible to have an understood scale of wages at which relief should be granted.

Mr. W. PORTAL said this subject seemed enough to make everyone less diffident than himself equal, but some one must speak to ascertain the solution of the question, if it were possible to solve it. He feared that in Hampshire they were powerless to provide a remedy for the evil. The fact was that pauperism was still increasing, and the number of applicants for relief in regard to the per centage of the population was assuming a most gigantic phase. He would refer to Aitcham, the chairman of which Union (Sir B. Leighton) he knew: and who was supposed to be the model chairman of England, and no one had paid more attention to the subject. He had been chairman ever since the year 1836 or 1837, and he (Mr. Portal) attended a meeting at Malvern at which Sir Baldwin Leighton presided. He must confess that Sir Baldwin did not carry the meeting with him, for he laid down rules which others and himself (the speaker) thought in practice would work very hard; but his accounts showed the most astonishing results. The whole of the outdoor relief did not come to more than a-third of the indoor relief. He asked Sir Baldwin certain questions which he thought would be posers. He asked him one with respect to the militia, namely, when that body was called out what amount of relief should be given to the men's families? Sir Baldwin expressed extreme surprise that any gentleman calling himself a guardian of the poor should put such a question. They knew so well in his locality that they would never get relief and that it was never even applied for. Mr. Marx had made a proposition with which he could not agree at all—that non-resident relief should be made illegal, for he thought it would be most hard that guardians should refuse to give relief unless they had the people under their control. He (Mr. Portal) did not suppose he should carry the meeting with him. He knew that the practices of boards differed very much, but he could not regard this proposition as kind, liberal, or Christian. Take the case of a poor person, perhaps eighty or ninety years old, who wished to go and live with her daughter, yet because she lived in the next union the guardians should say they would give her no relief. He should be glad to abolish the law of settlement. Where the tree fell, there let it lie, but he should be very sorry to see aged people prevented from living with their children in different parts of the country. Another proposition was to get rid of all relief except by goods. In Tipperary the system of out-relief was extremely simple, for they had nothing like our permanent list. They never gave relief for more than one week at a time, and every case therefore had to come before the board once a week. In England the permanent lists were revised sometimes once a quarter—very seldom once a month, and much improvement might be effected in that practice. A case came before him last week, in which it would have been much better for the family to enter the house, but they did not seem to understand that it would be so. The guardians wished it, but the family said they would not enter it. How should guardians deal with such cases? He had had a long experience, but confessed he could not tell. A man would say that he and his wife would rather starve than enter a workhouse, and although the guardians would have public opinion to back them (and that was very valuable), still the thing went on, and the guardians continued to give such a modicum of relief as prevented starvation. The present per centage in the North of Hampshire and Berkshire was very large, the number of persons receiving out-door relief being about 12 to 13 per cent. of the population. In Aitcham it was about one and a-half per cent.

Mr. SCLATER: Perhaps they have more work in that union.

Mr. W. PORTAL continued: Sir Baldwin Leighton thought he could put himself in competition with any other chairman of a union as to the number of Post-office Savings' Bank books (some forty or fifty) which he held belonging to the people around him. A domestic servant ought to save money; but when she came home, and a doctor's certificate was placed before the guardians, and she applied for out-door relief, it seemed hard that a person like that should be ordered into the house. A domestic servant should not be destitute, or a burden on the rates, or kept by her relatives. It was extraordinary, too, how wonderfully well the poor population thought they knew the state of the poor law. Adults imagined that, if over sixteen, they, if ill, could not be refused out-relief. He knew several instances in which efforts had been made to discover friends who were able to support their poor relatives, and with good results. They would say, perhaps, that certain relatives were employed in such a business, but they never heard from them, and it was impossible to get any support from them. He thought boards of guardians might take means to discover those who were liable by law to support their relatives, and thus prevent many people from becoming paupers. He considered that it would be better for many of the poor sick people to be taken to the workhouse; and he wished he could persuade medical gentlemen to change their mixtures to a more simple diet than wine, brandy, &c. He thought of all cases that came before them the most painful and the most difficult to deal with were those which he was sorry to say were more frequent this June than in any previous June of which he had had experience, and were likely to be more prevalent next autumn and winter—the case of those who did not want money, but work; the men who came and told the guardians that they wanted not relief, but only work. He had felt deeply such applications. As chairman, he had told a man before now that he must strike out into the country and get work, and he had been so foolish as to listen to his advice. He had gone forth, tramped the country for six weeks or two months, walked hundreds of miles, could get no work, and all he had done was to wear out his shoes. As in the metropolitan districts they had power given them by law to provide district works, so he thought they might now and for the next winter have the same privilege accorded to the country. He did not know how they were to meet the case, though he did not wish to “eroak” or be despondent. At their last meeting of the Basingstoke board, they had the case of a man not being able to get a day's work. These men were not, of course, the cream of society, but they must live, and, if they could not obtain work under the present condition of things, they would be in danger of starvation.

Mr. SCLATER wished to say a word on behalf of the ratepayers with regard to out-relief. He perceived that the general feeling of the meeting was against out-door relief, but something must be done for the sick and destitute. Let them take the case of a sick man with an average number of young children—say four, which with his wife and himself would make six in family. He was not, probably, the member of any club, and found himself, perhaps, unable to support himself and those dependent upon him during a temporary illness. The guardians refuse him relief, and the whole family enter the workhouse. The expense would be a guinea a week to the ratepayers, whereas it was quite certain less than half that sum would suffice given as out-relief. He should like to know whether the ratepayers were prepared to submit to that immense augmentation of expense, for it would certainly happen if people who required temporary relief were taken into the house.

Mr. R. A. DAVIS, as a guardian, expressed himself in favour of out door relief, considering that the wages of an agricultural labourer were insufficient to enable him to save money as a resource in old age, and, after devoting their whole life to a special purpose, it would be very hard to say to such people “You must go into the workhouse.” In his opinion there must be some means of giving employment, or people must be better paid, to enable them “to provide for a rainy day.” Put the wages at 12s. a week for a Hampshire agricultural labourer, how was it possible for a man with a family to provide for the future? The subject of medical relief frequently came before the board at Basingstoke, and he always upheld the orders of the medical man, for he thought, as an educated, professional man, he was called in, and should be the best judge of what

was necessary to restore the sick to health. If the medical man prescribed certain things, he did not think they were justified in interfering in the matter, thus setting their opinions against his medical knowledge.

The Rev. J. H. STEWART agreed with Mr. Davis when he said that the wages of any agricultural labourer were insufficient to meet all the wants that other classes of society were expected to meet. The Poor-Laws, he understood, were founded on two principles—Christianity and necessity. It had struck him, as a guardian, that one of the practical difficulties in dealing with cases of out-door relief arose from sickness, old age, and infirmity—in giving that relief which they were allowed to dole out by the law. The principal difficulty was in the theory that every person should be perfectly destitute before entitled to relief, but he questioned whether the persons relieved now were utterly destitute. All possessed something. It was very rare that a person came before them who was a friendless being without anything in the world. Many who came before them had the means of paying into a sick club, friends in a position able to help, and when they could relieve they knew the amount was not sufficient to maintain these persons. The sum given was not sufficient without other sources of income to keep them. The fact was that they gave these people less because they were conscious they had other sources of income; but this fact was not recognized by the law. That they belonged to benefit clubs was thoroughly recognized, in which case, perhaps, certain deductions were made. The guardians must at certain times ignore the letter of the law. That was a difficulty which at often struck him, but the solution of which he was not able to offer.

Sir NELSON RYCROFT said that where a militiaman was called out, he would at the end of the month receive about £2 for his bounty. In addition to this he received articles worth about 12s. 6d., but the board of guardians had no power to put a stop on that money. On his return, however, if the board chose to take that man before the magistrates, and prosecute him for leaving his family chargeable to the parish, they would be perfectly justified in so doing.

Sir M. H. BEACH thought this suggestion did not quite hit the nail on the head. In the North Gloucestershire Militia they found the following plan the best: The colonel and other officers persuaded the men to send money home to their families, and this was easily done, for they could say, “We shall not allow you to re-enter again at the close of your service unless you send money home to your family.” As to prosecuting the men, he was afraid guardians would not be able to get much out of them. He had listened with great attention to the remarks of Mr. W. Portal, with whom on one or two points he could not agree. He said that relief should be given in cases of destitution only, and that it should be given in accordance with Christianity. Now he (Sir M. Beach) would venture to say that the Poor Law and Christianity had nothing to do with one another. The real fact was that out-relief should be given only in cases of destitution. It was a legal and moral fact that boards of guardians had not only the right, but were compelled to inquire into the circumstances of the applicant. If he were a member of a benefit society, if he had property of his own, or any possible source of income, the guardians had the power of determining how much relief it was necessary to give in order to preserve the family from destitution. Mr. Portal spoke of kindness and liberality, but he (the speaker) considered these were connected simply with private charity, not with the law of poor relief; and, in justice to the ratepayers and every one concerned, he thought it would be a great pity if kindness and liberality should enter into the matter at all. With regard to non-resident relief, it might be hard that guardians should refuse to administer relief to the persons named, but the line must be drawn somewhere. And what was their protection? The relieving officer; and how was he to make satisfactory inquiries beyond the bounds of his charge? These cases, however, were so few in number that they should not be allowed to outweigh the rule that no relief should be given unless due inquiry be made. He looked with great dread and distrust on any system of public works. They were burdened enough with rates, without adding anything to increase them, and establishing public works throughout the country would be to add to the rates.

The Rev. J. G. JOYCE observed that the highest guide was true Christianity, and the intention of the law in this respect

was clearly shown in providing that the master of a union should read prayers daily to the inmates.

Mr. HURLEY said that in Reading they did not relieve the family of a militiaman, except in very unusual cases. He recommended the unions of Hampshire to discontinue the practice.

Mr. B. W. CARTER asked if, after the medical officer had once given an order, there was any power of revising that order.

Mr. W. PORTAL said such order had been revised in many instances.

Mr. CAVE remarked that the medical order was taken only as a recommendation, and the guardians discussed the question. They did not doubt it should be carried out, but the question with the guardians was: Who was to pay for it?

Mr. LEWIS thought it would be most injudicious to obstruct the action of the medical officer in the application of remedies, and it would not contribute in any way to the economy or welfare of the country. The extra nourishment and stimulants ordered were not given without consideration of the necessities of each case, and the absence of either might prove very prejudicial to the progress of the patient.

Several speakers added corroborative testimony to the fact of the order of the medical officer having been "revised." It appeared that the relieving officer had the power of stopping its execution if the applicant was not considered "destitute."

Mr. WESTLAKE spoke of the various difficulties which a man had to contend with who could not get work, and said if guardians could give such a one only a shilling a day, it would prevent his becoming quite pauperised.

Mr. W. PORTAL quoted "Glen's Consolidated Orders of the Poor-Law Board," to show that the medical officer had not power to order—simply to recommend—such and such nourishments and stimulants; but

Sir M. H. BEACH said that the notes in that work had not the authority of the Poor-Law Board.

Mr. B. BAKER pointed out how beneficial the steps taken by Sir Baldwin Leighton had been in the interests of the poor population around him. One method which he took for benefiting the poor was the fencing off a piece of land that he might keep a cow, or it was arranged so that it was allowed to run with a farmer's cow in the neighbourhood. But nobody was allowed to keep such an animal before he had deposited a good sum in the savings bank. Mr. Baker quoted from a pamphlet which he had published on "The Poor," in which he advised that an Act should be passed authorising boards of guardians or their relieving officers to detain any who had claimed relief, and to take them, if necessary, before the petty session; and if they cannot show either that they from weakness or ill-health have never had an opportunity of laying by some money, or that when in good work they have laid by something, but from recent ill-health have been obliged to spend it, the magistrates may order them to be detained in the

workhouse, and kept to such hard labour as their health and strength will admit of, not exceeding six months, after the illness which has caused them to apply shall have passed away. They might laugh at his proposition; he had heard many persons laugh at it at first, but they had often come round to his opinion subsequently.

Mr. MARX, in his reply, said Sir Baldwin Leighton had certainly done great good in his district. He had raised a people from a state of pauperism to one of manly independence. In his (Mr. Marx's) own small way he had tried in vain the same thing. Twenty years ago he started to help a union which was then improperly managed. The poor rates were sometimes as much as 6s. and 6s. 6d. in the pound. He represented that they should be reduced—a thing they seemed to think impossible; but since then they had been reduced to 3s. 6d., 3s., and 2s. 6d. No man could be employed in a more Christian work than that of trying to raise the character of the labourers around him. He thought Mr. Portal's ideas of finding work by means of district public works was thoroughly wrong, and hoped it would never be entertained, for he believed he was utterly wrong. He was sorry to differ from him, but he always did so in the most friendly way, for he was one of his best friends.

Mr. C. TUNNELL referred to the greatly improved state of the Scilly Isles under their present owner. Pauperism was at the first period of the ownership very common, and the first thing done was to establish good schools and make education compulsory. The main cause of the improvement was due to these measures, and pauperism he found, when he visited the isles some nine or ten years ago, had been nearly banished.

Mr. YONGE spoke of the extreme danger of allowing outdoor relief in order to save in-door relief, believing it to be one of the greatest dangers they could possibly fall into. He thought they must follow not only the letter, but the spirit of the Poor Laws in their daily practice. With regard to what had been said as to Christianity in connection with the Poor Laws, the apparently contradictory expressions might be reconciled. Christianity, in the sense of liberal dealing, which the first speaker appeared to mean, was quite foreign to the Poor Law, as had been pointed out. In the sense of the presentation of the means of religion to all inmates, as expressed by another speaker, it was most necessary. But he would add, in a sense with the first speaker, that no one could hope to approach to the proper performance of functions connected with the matter in hand without endeavouring to find his guidance in Christian charity, which would inculcate the most strict performance of these duties of trust to all.

Mr. W. PORTAL, who had succeeded to the chair, then put the following resolution, which was unanimously agreed to: "That out-door relief requires to be administered with great care and discrimination, and in conformity with the spirit of the Poor Law; and that out-relief should not be given when the parents, grand-parents, or children of the applicants can give adequate support."

RATIONAL CULTIVATION.

At the quarterly meeting of the Victorian Agricultural Society, Mr. Josiah MITCHELL, of the Experimental Farm, read the following paper:

In the first place, then, the growth of the same crop year after year on the same land, "wheat after wheat," for instance; the production of successive grain crops with out any manure, and with only an occasional bare fallow when the land becomes foul; burning straw instead of converting it into manure by the aid of stock, and restoring it again to the land; the laying down of land to grass after it has been exhausted by the growth of grain—these are some of our practices that are not rational because opposed to the laws of nature—rotation and restitution—which govern the growth of plants and the continued fertility of the soil. Rotation, I have said, is a law of nature that governs the growth of plants; it compels change of soil or situation. No plant will thrive continuously on the same spot. This applies as well to oak and pine forests as it does to wheat, oats, or any of our cultivated crops. The necessity for rotation or change of crop is caused, partly by exhaustion in the soil of elements essential for the healthy growth of the plant, and partly in consequence of the excretory matter thrown off by the roots, rendering the

soil unfit for its further growth. Yet one plant by its death and decay from these causes makes the most suitable preparation for the healthy growth of some other plant belonging to a different order. In this way, the great globe we inhabit has been converted out of barren rocks into the thing of beauty we now see it, and become fitted for the sustenance of man. It is upon this law that the modern practice of British agriculture is founded, and no system of cultivation can be deemed rational if it does not embrace some rotation of crops. I need only instance the well-known success of wheat grown after peas, beans, or clover, to illustrate the advantages of rotation. At one time it was supposed that by attention to a proper rotation of crops—one crop preparing the ground for another—the farmer could go on producing crops without any manure to the end of time. Increased knowledge has dispelled that illusion. We now know that in conjunction with rotation we must also have restitution, or compensation, if we would maintain the fertility of the soil, and avoid barrenness. Restitution and rotation should be the watchword, the creed, not merely as a matter of faith, but the everyday practice of all who desire to cultivate rationally. We cannot go on ploughing and sowing, reaping and mowing, taking all away, and giv-

ing nothing back to replace the mineral substances removed from the land. We cannot, I say, long continue this system of robbery, even with some sort of rotation, without being brought face to face in the long run with one of these two alternatives, restitution or barrenness. The time, of course, will vary with the quality of the soil, but the end must come. How little this inexorable law of restitution seems to be understood, or if understood, how much we, by pursuing our present exhaustive practice, seem to disregard it! Yet it is no light matter, but one fraught with serious consequences to any community where a system of spoliation is carried on, instead of rational cultivation. The other day I met with the following statement bearing on this subject, in the leading columns of one of our daily journals, in an article commenting on mining leases. In making a comparison between the charge for a mining lease and the cost of agricultural land, the writer proceeds to say: "Agricultural land rightly passes at a small charge from the Government into the permanent possession of the cultivator, because by the labour of him and his successors, it will continue for generations without number to yield the prime necessities of life, food, and raiment to the inhabitants of the state, because, in fact, cultivation makes of it the commissariat, without which the state could not exist." Now, this holds good only where rational cultivation is carried on; under an exhaustive system there is absolutely no difference between agriculture and mining. The miner works out his claim, and the farmer works out his farm. The former abstracts the "metallic treasure," wealth's representative, and the latter abstracts by means of his crops, the real worth of any nation, the fertility or producing power of the soil, thereby destroying "the commissariat without which the state cannot exist." This is a startling fact; yet our state looks on with indifference at a condition of things that must, in the course of a few years, seriously affect its own existence. Nay, not only does the state look with indifference on the present system of spoliation without making any attempt to introduce a more rational one, but it actually, by "settling the people" on too small portions of land, renders an exhaustive practice compulsory on the part of the poor settler. With the frightful example of America before our eyes, and none of her vast resources in the shape of rich agricultural land at our back, we fail to profit by the lesson. There, in America, such is the distance grain has to be transported over country rendered more or less barren by spoliation, that unless the price of wheat rises as from 55s. to 60s. a quarter in Britain, it will not pay the farmer in the "far west," where the work of destruction is still going on, to harvest his crops; and they are allowed to shed on the fields. Nearer home, we read of an exodus of farmers from already exhausted districts of South Australia, coming to Victoria to take the benefit of our recent Land Bill, and of course, to pursue the same system here that has led to the necessity of their leaving South Australia. But to come home within our own colony, we are told by the *Hamilton Spectator* of farmers in the Western district, who, having exhausted their own freeholds, are now renting land on short lease at a high rent for the purpose, no doubt, of carrying on the same exhaustive practice. Meantime they have laid their own farms down to grass, to recover the lost fertility. Delusive hope! If it be the mineral constituents of which the soil has been exhausted, there is but one way of restoration, and that is by restitution. However, "the convenience of the arrangement," it is said, "is quite mutual, for the landowner will get a far higher return by letting his land for 15s. to 20s. per acre, than he would by keeping a couple of sheep to the acre, and the tenants will be able to make larger annual gains." From this it would appear that the American system, when "the settler subdues a piece of land, flogs it to death and abandons the carcass, and then repeats the operation on a new subject," a system that has been condemned by thinking men in all countries, is in full force among us; indeed, some, it would appear, have already managed to compass the death of the first victim, and are seriously setting to at the second. With our "limited area of good agricultural land," this is surely an unwise course to pursue, and must be attended by disastrous results. But then "the landowner gets a far higher return, and the tenant larger annual gains." Here we have the true secret—an insane desire to convert the fertility of the soil, at all hazards, into hard cash—to sell the birthright of mankind for a few pieces of glittering ore! Curious anomaly of human law this; we will not allow a poor miserable wretch to destroy his own miserable life, but

we make no attempt to prevent the destruction of that which maintains life. With lettings like that in the Western district, and the Government selections of 80 acre lots, how can we expect any attention to be paid to the natural laws of restitution and rotation, or any attempt at rational cultivation? Having pointed out some of our farm practice which I conceive is not rational, and endeavoured to show you why I think so, I shall now pass on to the question, What is rational cultivation? "The object of farming is gain. Whether an agriculturist grows bread to strengthen man, wine to gladden his heart, oil to make him of cheerful countenance, or opium to poison him; whether his barley be made into wholesome ale or deleterious gin, he has but one concern—does the cultivation pay?" This being the case, and the object gain, the system that enables the farmer to obtain the largest quantity of healthy produce at the smallest cost, and realise the greatest amount of profit, but—pray, you mark this well—"without permanently lessening the fertility of the soil"—any system that will fulfil these conditions may be pronounced a rational system of cultivation. The fertility contained in the soil is the farmer's capital; when he sells his crop, he sells part of this capital. If he does not restore to his land, in the shape of manures, the fertilising substances taken away in the crop sold, his land will be permanently so much poorer. He is then living partly on capital, instead of on interest alone. This is an erroneous and too common practice. By following it the capital originally contained in the soil is year by year diminished and the farmer, with diminishing crops of grain, as a matter of course, obtains less and less of interest, not only, mark you, on the capital in the soil, but also on the capital he employs to work his farm. True, the farmer may by this unwise course of practice, when his land is in its vigin freshness, manage to save money, but such savings cannot all be regarded as legitimate profit because he has simply been transferring part of his capital out of the soil into some bank. Should he farm the same land long enough, his bank account will dwindle away again, for "the spoliation of land leads to poverty." Now, by following the opposite, that is, the rational course, and restoring again to the soil annually, in the shape of manures, those elements of fertility carried away in the crops sold off the farm, the farmer will retain his capital in the soil intact, and will always obtain undiminished interest on both the capital in the soil and that employed in working the farm. Does some one inquire—will this rational system, this constant manuring, will it pay? Well, all I can say in reply to such a question is, if it won't we have no business with the land. Why disturb the squatter? Why destroy his rational and profitable employment of the land in the production of wool and tallow, if we take it only to pursue an exhaustive system that must in the long run end in rendering it useless for cultivation, and unfit even for the production of wool and tallow? The fact is, if we, as farmers, are to continue to cultivate we must cultivate rationally. It is a case of "Hobson's choice, that or none." We must also make it pay, for that is one of the conditions. How, then, are we to set about it? It is not my intention to attempt to lay down any course of cropping. Every one must decide this matter for himself according to circumstances, climatic conditions, and local requirements. In one part of the colony it may be dairy stock in conjunction with grain growing; in another, sheep; in a third, the purchase of phosphatic manures, and the ploughing in of an occasional crop of green manure. So that it becomes simply impossible to point out any specific course whereby to attain the desired end. But this I may say, that whatever system may be adopted it must be based on the laws of restitution and rotation. In colonial agriculture generally the natural tendency seems to be to begin at the wrong end. Instead of starting from grass and the depasturing of stock, the production of grain is made the starting point. By the continued production of grain alone, the land becomes exhausted, and thereby unable to produce grass except of the most worthless and unnutritious description. Now, the rational course would be to start from grass as a basis, and, in conjunction with this through green crops, stock, and manure, advance to grain; then, in the course of any rotation back again to grass. The laying down of cultivated land to grass, after a course of cropping, may be likened to putting it to bed; of course, the more comfortable we make it the better it will rest, and consigning it for a time to "nature's sweet restorer, balmy sleep," which, if I may be allowed a slight liberty with poetic diction—

Swiftly on dewy pinion flies from fields
Of woe, too often cropp'd with golden grain,
And lights on slopes unrufl'd by a plough.

The bare fallow is like poking up the fire to make it burn away all the faster. But a green crop put in with plenty of good muck, and fed off on the land is the true "roast beef of old England," and will be followed by plenty of bread and cheese and beer. As I have said before, if we take care of the grass the grain will take care of itself. To do this we must take care of the muck, and to get muck we must have stock of some sort. By means of stock the farmer can collect together part of the capital contained in the soil of his grass land, and apply it to his arable land for the time being. By thus concentrating his fertile capital, he will secure a larger and more certain return for his outlay on the labour of cultivation. In this way the fertility of the farm will be made to rotate on the farm itself, along with the rotation of crops, and if restitution is made for loss suffered by produce sold, this system may be carried on to the end of time. The first step, however, towards the initiation of such a course of practice is the subdivision of farms into fields; the next, keeping stock and taking care of the muck; after that rotation of crops, and last, but most important of all, restitution. Under present circumstances, as regards population and cost of labour, not less than three-fourths of a farm should be under grass, "bush grass" of course in the first instance. The larger the farm the larger should be the proportion of grass land. That a system of rational cultivation will not pay in this colony I deny. The truth in this matter is not left without witnesses. For, although an exhaustive practice is the prevailing one, and tenant farmers can hardly be expected to follow any other, yet I know several farmers who cultivate their own freeholds on a rational system, and who make it pay too. It is also a cheering sign of the times that many are now impressed with the necessity of some change, and anxious to adopt a more enduring system. Spoliation it has been found will not continue to pay; and this brings me to the third part of my subject, in which I promised to notice some things which I think would tend to promote rational cultivation. First on the list of things that would tend to promote rational agriculture, I will venture to mention Farmers' Clubs, such as this Society has had the honour of introducing to the colony, or, as they might be called, farmers' schools for grown up pupils, "Where each by turn is teacher and is taught." They are the most readily available and practicable means of agricultural education that we have at hand. These Clubs and the national shows of the Royal and Highland Societies have done more to advance British agriculture to its present position of high excellence than anything else. They have taught the British farmer to think, and to express his thoughts. I can assure you, although you may not think it, I read with far more interest and profit the papers and discussions of some of those Farmers' Clubs in the old country than I do even the Parliamentary debates in our own. Through these Clubs, and the agency of the press in diffusing the knowledge gleaned at their meetings, and by that strength which such union gives, the British farmer is fast becoming a power in the state. Instead of being considered a mere cipher, and told how he was to vote at elections, he will ere long dictate to his landlords how they must vote in Parliament on such questions as the "Game Laws" and "Tenant Right." Now, if Farmers' Clubs can effect such revolutions as they have done, in the practice, in the social and intellectual position, and in the political influence of the farmer at home, why should they not produce the same results in this country? Here we are quietly, for the want of some such union, allowing one of the curses of England, the game-laws, to be fastened upon us, and never bestowing a thought upon "Tenant Right." Farmers' Clubs are a far greater necessity as a means of collecting and diffusing information in a new country like this than in an old one. Here we have a climate so widely different from that of the old country that we have as it were to begin afresh, and elaborate a practice in accordance with climatic and local requirements. Nothing can aid us more in doing this, and in devising some course of rational cultivation, than periodical meetings of farmers, to "reason together" on questions affecting their interests and the progress of their art. By such means many valuable facts derived from practical experience, and that would otherwise be lost, will be collected and recorded. It is from Farmers' Clubs that some scheme for the education

of young farmers should emanate, and the neglect of their education, as I have already pointed out, may be attended with injurious consequences to the state. The formation of these clubs should be a simple matter; all that is requisite is fixed times for meeting, a sensible chairman, active secretary, and the apostle Paul's definition of charity, slightly modified, as rules for the guidance of members. I hope soon to see them flourishing in every district in the colony, and I feel sure their establishment will be attended by good results to farmers themselves, and to the community at large. Another thing that, in my opinion, would promote rational cultivation is a law of "Tenant Right." This may perhaps sound strange in a new country where every one is supposed to sit under his own vine and fig-tree. Still it is nevertheless a fact that we have a large and an increasing class of tenant farmers amongst us. The conditions here are very similar to those which in Ireland have led to such a complication of interests between landlord and tenant, paralysed industry and energy, and retarded the progress of rational agriculture in that country. We too have our absentee landlords, and tenants have in most instances to make all their own improvements. The sooner we have some legal enactment that will secure to the tenant-at-will, in the event of having to leave his farm, just compensation for permanent improvements made by him on the farm, and for unexhausted improvements in the soil, the sooner we have some Tenant Right of this sort the better, as such a bill would materially tend to promote rational cultivation by tenant farmers. Our meat-preserving companies, too, inasmuch as they will tend to maintain a higher standard of value of stock of all sorts, and the praiseworthy—I might say patriotic—efforts of Mr. Matthew McCaw to induce farmers to manufacture cheese and cure butter and bacon in such a way as will secure for them a European market, may be justly regarded as tending materially to aid and promote a rational system of cultivation. But above and beyond all things, I would urge upon the attention of cultivators the duty of reverence and respect for the laws of nature ordained by an all-wise Creator, without which permanent success in cultivation is simply unattainable. The more we study and examine those laws the greater will be our reverence and respect, and as we obtain clearer views of the wisdom, beauty, and harmony of creation, the stronger will our convictions become that they cannot be outraged, infringed, or disregarded with impunity. Science expounds those laws. If, in the course of my remarks, I may seem to iterate and reiterate certain things, it is because I wish them to be remembered and thought about. The subject, I need hardly say, is far from being exhausted, and I only regard the few thoughts I have thrown together in this paper as a peg upon which you will hang more valuable information; and I will conclude with the following quotation, which may be carefully studied by statesmen as well as farmers: "Thus, my friends," says the profound Goethe, "if we survey the most populous provinces and kingdoms of the firm earth, we observe on all sides that wherever an available soil appears it is cultivated, planted, shaped, beautified, and in the same proportion coveted, taken into possession, fortified, and defended. Hereby we bring home to our conceptions the high worth of property in land, and are obliged to consider it as the first and best acquirement that can be allotted to man; and if, on closer inspection, we find parental and filial love, the union of countrymen and townsmen, and therefore the universal feeling of patriotism, founded immediately on this same interest in the soil, we cannot but regard that seizing and retaining of space, in the great or the small scale, as a thing more important and venerable. Yes, nature herself has so ordered it. A man born on the glebe comes by habit to belong to it; the two grow together, and the fairest ties are spun from their union. Who is there, then, that would spitefully disturb this foundation-stone of all existence; that would blindly deny the worth and dignity of such precious and peculiar gifts of Heaven? And yet we may assert that if what man possesses is of great worth, what he does and accomplishes must be of still greater. In a wide view of things, therefore, we must look on property in land as one small part of the possessions that have been given us. Of these the greatest and most precious part consists especially in what is moveable, and in what is gained by moving life." The "moveable" and "moving life" of the soil is its fertility, and statesmen, as well as farmers will do well to prevent the ignorant or wanton destruction of this "foundation stone of all existence."

FIELDS AND FOLDS AT HOME AND ABROAD.

Every popular proverb or saying has its converse, and if that be quoted "A rolling stone gathers no moss," in proof of the advantages of remaining at home as the best way to increase in wealth, if not in wisdom, we may on the other hand quote the saying that "The rolling snow-ball gathers as it goes," in proof of the advantages of now and then, at least, moving out of the groove in which we ordinarily go, and seeing what other people do, and what lesson other places can teach us; and, in truth, a very cursory view of the matter will go far to show the many advantages that do arise from widening the sphere of our observation and extending the range of our experience. And it is just because that it is moss that a quiet, stay-at-home stone does gather, that far-seeing men maintain that movement is necessary in order to gain or gather something better than moss. It is attention and constant rubbing that polishes the gem, and to rub out is in any case better than to rust out. The merchant is ever on the look out for new markets, and there is no reason why—every reason why they should—farmers should not look out for "fresh fields and pastures new." It is this very principle which underlies the system we, as a farming community, have inaugurated and carried so successfully out of having shows. These bring together, from all quarters, great gatherings of farmers, who come in contact with each other, getting and giving new ideas, and having brought before them the evidences of progress which are being made in every department of farming; and there can be no doubt whatever of the vast advantages which arise from the becoming acquainted with modes of working and the different appliances brought thereby into requisition which have in some districts tended to raise their practice so high above others; and in a way as marked, although doubtless in a different way, at least in some of its varied aspects, are the advantages of travel both in our own country and in the best known and most advanced districts of countries other than our own. It has been the privilege of the present writer to see many famous districts, both in the old world and the new; and it appears to him to be so likely a thing that what has interested him so much will in some small measure interest the readers of this Journal, that he purposes from time to time to present in its pages some records of his rambles, some traces of his travels, which have now spread through a long series of years and over a wide extent of country.

Not only as being likely to possess greater features of novelty, but as being perhaps more appropriate to the season in which we write, we purpose taking our readers with us over a journey in various districts of Holland—a country than which none possesses so interesting a history, none stands so high in the annals of patient, persevering industry, none which has had such natural difficulties to encounter, and in which these difficulties have been so successfully overcome. It is a country, moreover—and this is more to the point for the purposes of a paper such as this—in which there is much that is of great agricultural interest, and from which lessons of great practical value, at least of considerable practical suggestiveness may be gathered. Another point renders a paper or two on this interesting country peculiarly appropriate this year, for Holland may be said to be, amidst the disturbances and disorders of war, the only country on the Continent which may be comfortably visited, at least the only one which is within easy reach of any of our ports,

Rotterdam, the chief port of Holland, at least the one most cheaply and quickly reached, may be got to by one of three routes: direct by steamer, from London, Leith, or Hull; or by rail from London to Harwich, thence by steam; or by steamer to Antwerp by Harwich, or from London, Leith, or Hull, and from Antwerp by Moerdyke and Dort (Dortrecht). This last route is peculiarly interesting, inasmuch as it enables the traveller to take the very interesting town of Antwerp on his way, and enable him further to see the fine old town of Dort, as well as something of the Lower Rhine. Of these three ways of reaching Rotterdam the direct steamer one is, to our mind, the best; it is certainly the most comfortable, always supposing that one is not of tender stomach. To the sea-sick traveller, or who is likely to be on the waves which Britannia is said to rule, and which yellow pluck had such reason to know had ruled so "plaguily uneven," the best way is by rail to Harwich, from which a short sea-passage takes him to Rotterdam or to Antwerp. This route is cheap, but we wish we could say that our experience would enable us to aver that it is convenient—convenient in the sense of finding things well managed on board the boat we cannot say it is. *We*, at all events, have found ourselves so uncomfortably attended to while at sea, that we have vowed the last time we went would literally be the last. The only way to make it at all comfortable is to go down to Harwich by an early train, secure a comfortable berth, and defy the crushing crowd of tourists who go down by the last, or "boat train," to find confusion reigning around in the boat when they arrive, and berths allotted to those only who are importunate with the steward, or have the pluck to take a berth and keep it *noles volens*. Unhappy he who is bashful and quiet: he has no chance of getting any of the good things. All this discomfort might be and could be avoided by good administration on board the boat, but if it exists as a rule, all we can say is that we must have been under the "rule of the exception" when it did not exist. Otherwise this route is a good one; it is certainly cheap, and, as before said, it has the advantage, to some, of reducing the area of sea-sickness to a minimum.

Whichever of the routes the traveller takes, he should certainly arrange to take Antwerp either in going or returning. It is a charming old city, full of much that is worth seeing, and surrounded by a charming country, at least one which abounds in much that is interesting to farmers. From it various short excursions can be made to districts in which much can be seen. We purpose taking our readers first direct to Rotterdam, thence through the most interesting districts of Holland, and back to "dear Old England" by way of Antwerp. If our readers will have but a tithe of the interest in what we say that we, on the occasion of several visits to Holland, saw, such trouble as we may have in the saying of it will be well repaid.

And here a word or two may be said as to a very popular notion of a tour through Holland, and that is, that it is very uninteresting. Thus at the outset we can only say on this point, that we never found it so. Doubtless, compared with other parts of the Continent, it is flat, and the aspect of the country is not that which raises such feelings of wonder or pleasure as the finer and bolder scenery of Switzerland, or the charming features of the Rhine, the Meuse, or the Moselle. But uninteresting it

cannot be said to be; certainly not in the higher sense of displaying evidences of that patient industry to which we have already alluded. And even from the picturesque point of view and from that which the lion-hunting and sight-seeing portion of English tourists think so much of, Holland as a country in which to spend one's holidays is not to be despised; indeed an observant traveller—and it is to readers of this class we alone address ourselves—it is one greatly to be thought of. The lawns are in themselves quaint, and possess many objects of interest, and it is not possible we conceive for any thinking mind to visit them without having feelings stirred and emotions aroused which do men good, and make them think about things of higher and holier import than inane connection with the routine of mere money-making or the excitement of seeing sights which may tickle the fancy, but cannot possibly please the taste more. Our readers who have an acquaintance with the fascinating volume of Motley, where he recites the history of the Netherlands, will understand what we mean in the direction of thought and observation; and those of our readers who have an artistic taste and have enjoyed the examples of one of the

best of the schools of painting will understand what we mean in another. Holland, therefore, we maintain is not the undulating country some hold it to be: it is rich in historical and artistic associations, and rich also in those with which our readers are more peculiarly and particularly connected. Much however depends upon the way in which the "tour" is done, to quote the cant phrase of hurrying tourists who think more of the mere getting over of ground than of what is to be seen and observed in it; to take train and hurry through the country is not the way to see it, not assuredly the way to see it so that you can "observe." The work must be gone leisurely about, and infinitely better is it to see one district well and thoroughly than to hurry through or over many and see none of them in this the only true way. We shall endeavour in the best fashion we are capable of doing, to take our readers in the way we did it, in which our object was to see as much as possible, and to economize time—not in the way some think they economize it by saving it, but by wisely distributing it. That and that alone is true economy, resulting in the maximum of work obtained with the minimum of time employed.

FARM PHOTOGRAPHS.

Scarcely less awful to look upon than a "ship on fire" is a stack-yard in flames. As a spectacle each is equally grand and painful to witness. We have seen the mansion gutted, and the manufactory destroyed by fire; but, irrespective of the question of life involved, the sight was not accompanied with that painful impression that attended the scene of a conflagration of farm produce and premises. Under every variety of circumstances it has been our lot to see this sad spectacle, and on many occasions we have been at hand when the destroying element has been let loose, and till it completed its work.

Once it was an immense hay-rick; at another time a detached wheat-stack; and, again, a row of barley-stacks that were consumed. On another occasion a noble old barn, capable when it was built of holding all the wheat grown in the township, fell a victim. The roof was oak, and the spars reached from the ridge nearly to the ground. One end was filled with straw, the centre was occupied by machinery and grain in the straw, and the other end was full of unthrashed oats. The flames were first seen at the straw end, near a loophole in the gable. The fire had commenced at the top of the "mow" or stack, and when we saw it a few minutes afterwards it was blazing up to the slates. The hard old oak smoked and charred for a short time, but at last burst forth into violent flames; the spikelets of fire running like quicksilver from spar to spar—now to the ridge, and now down to the wall-plates. Now the principal timbers became red, and the flame sprang from one to the other in great tongues reaching almost across the building, and hundreds of small lines or forks of flame ran along the laths under the slates, and in five minutes reached the opposite end of the long roof. So that, long before the straw heap where the fire began was consumed, the whole roof was in a mass of flames, which burst out of the doors and windows as though seeking outside for fresh food for its insatiate appetite.

Meantime the sparks lighted the scattered straw on the thrashing floor, and the flame ran like a twisting firework along the bottom floor, and the whole of the machinery in the middle, the grain in the chaff, and the unthrashed oats, were burning at the top and the bottom; and the enemy lapped round and over its ancient victim so greedily that in twenty minutes the roof fell in, and the flames were

confined to the lower floor, where the mingled timbers, straw, grain, and chaff smouldered and burnt, occasionally during the night breaking out into a blaze. And the fine old fabric stood out in the clear moonlight of the early morning a mass of gable and wall, naked and blackened. It was a grim ruin, without a vestige of the framework of the structure or of the internal machinery visible; the thick main beams of the roof, the iron skeletons of the machines, and the inorganic *débris* resulting from the fire forming a confused mass—a caput mortuum, without shape, beauty, or utility.

On another occasion a friend of ours, on reaching home from church at noon, took a turn round his garden before dinner, and saw the smoke curling over the roof of his barn. The stackyard was on the other side of the barn; and in an instant he saw the flames peeping out of the sheaf-window, and the smoke pouring through the tiles. He was quickly there, and found a large stack on fire at the bottom, and the flames winding round it like a snake, and throwing out its tongue, and seizing upon stack after stack. A gallop of three miles brought the news; and after a few minutes on one that had often gone well, but never at a better pace, across country, we were in the yard, and found that in one half-hour the barn and its contents, comprising 100 sacks of wheat, thrashing machinery, and straw, were every inch on fire. By great exertions, connection between stables on one side and the cow-sheds and granaries, containing beans, oats, and other property, on the other side, was cut off, and the progress of the flame at each end arrested. On the west side of the barn the tale was different—seventeen stacks of wheat, barley, and oats, one or two of clover and straw, several laden waggons and carts, ladders, poles, and other implements, and every combustible in the yard—even the hedges, gates, and quickset hedges—were in full flame. Like so many mighty furnaces, as we see them in the Black Country, the stacks burnt and blazed, the flames now rising perpendicularly, and now twisting rapidly round, as the current of air changed in force or direction. The sheaves being tightly packed, as the flames enclosed the external surface of the stacks, and prevented a full supply of the oxygen and the atmosphere, the violence of the flame appeared to diminish, and the red fire had to eat

its way into the solid mass, the stacks at such times looking like so many mighty cones of red-hot iron. A sudden gust of wind occasionally sent up showers of sparks that made the clear sky appear for a few moments studded with myriads of stars. And then the flame burst forth again, and the work of consumption by the devouring element progressed at a quicker rate.

The only use of the fire-engines was to prevent the spread of the fire, and to save the buildings and the house. The quantity of water used on the burning masses seemed simply to prolong the period of burning and to intensify the heat; and it was morning—quite day—before the flames shrank within the heaps of ashes, which still were red under the surface. In one day, the year's produce of many hands and much anxiety, the food of many hundreds of mouths, had disappeared, a few bushels of ashes in each case being the sole remains of the noble stack that on the day previous, thatched, trimmed, and finished according to the best rule of farming art, reared its tall head in the proud company of its fellows.

Nothing in the whole scene, however, impressed us more painfully than the remains of several carts, which were consumed. Quite new, gaily painted, and laden with sheaves, decorated with green boughs and ribbons, they had formed part of the rural pageant and procession and gladness and joy which a few days before had marked the successful finish of the harvest and the bringing home of the last sheaf. Now, there was the place where they had stood, but of themselves there was nothing really to see but the iron-work of each cart. Of this the fire had licked the paint, and it lay twisted and reddened by the heat in each case exactly in the position on the ground corresponding with the part of the vehicle to which it had belonged. The wheels had, as it were, suddenly collapsed, and the rim was laid on the ground, with the nave in the centre of the circle in its true position. The axle also was laid across from wheel to wheel, and every other piece of iron—the hooks in the shafts, the fastenings of the tail-board, every bolt and every nail—was present on the ground in its true relative position, as if the cart and its contents had melted away and the iron had remained. So it was, and the mighty solvent was fire.

Shakespeare or Sterne might have moralized on the theme—the skull of Yorick and the dead ass are not more striking subjects—but we can only photograph our memory of the scene and the transcript of it is, consequently, very imperfect.

Now we have seen the fire burst out of a hundred windows, and the cotton and oil blaze, and the machinery glow with red heat, till roof, floor, gable, and wall fell with loud crash into one mass of smouldering wood, iron, and brick; but upon however gigantic a scale this scene might be, we never felt the same horror and melancholy feeling associated with it, as with the farm fire we have pictured—when, after the momentary admiration of the glorious grandeur of the spectacle, the sudden chill and pain supervened, and admiration and sorrow alternated. Reason also gave her judgment upon the two scenes.

In the mill the substance destroyed merely represented capital, and cash could replace everything; but in the farm produce destroyed are not only lost human food which it may be difficult to replace from foreign sources by the aid of money, but we lost a part of the annual gift of God, which constitutes the wealth of the nation, and had so much less capital to buy imports with, as a substitute for the destroyed produce. Nor can we when this occurs, possibly, by the agency of all the capital and labour in the world, grow another crop in the same year. We have had our promised seedtime and harvest, and we have reaped the anticipated results, but we have failed to preserve them! That is *the* case. It has been destroyed, and the nation is poorer by the amount and the supply of

food less by the same. Imagine the consequences if every stack in the kingdom were so destroyed, and the argument will require no further illustration.

Now we have, as we have said, drawn this scene from our memory, and photographed it for a purpose. The particulars and facts alluded to illustrate a subject which we are anxious to bring before the farming public, and which is pertinent to the season, and certainly important to the farmer at any time. This subject is a method which we find is becoming more and more adopted on the large farms in Yorkshire, and which we have occasionally met with in other districts, of diminishing risk of, and the loss from, accidental fires upon farms.

Under the present circumstances of drought, when every substance is dry and hot, and vegetable matter catches fire easily, every precaution is absolutely necessary. In 1848 extensive areas of grass were set on fire by the railway engines. Hedges and woods were also consumed. In France, during the present summer, extensive forests have been destroyed, armies of soldiers being required to arrest the progress of the flames. Several fine woods have been consumed in England, and upon many farms hedges have been set on fire by the resting labourer's lucifer-match after it has lighted his pipe. As a case in point we may name that, upon the farm where the fire took place, to which we have previously alluded, a few weeks ago a fine thorn hedge was found blazing, and was for a great length entirely consumed. The wind fortunately drove the sparks towards a turnip-field: had the hedge burnt the opposite way the loss of standing and sheaf corn in the field might have been serious.

While, then, the dryness of the season should make us alive to every precaution now, at all times and seasons due and proper care should be taken; and therefore the practice of stacking the grain in three or four different places at safe distances from each other, and from the premises, is one that we photograph immediately as worthy of being set before the notice of the agricultural community. It may be too late to be made use of in many instances during this harvest, but it is a lesson of the season, which should be listened to, and made use of on the first favourable opportunity.

The practice of concentrating the whole year's produce in one stackyard is now almost universal. Upon moderate-sized and small farms it is practised without an exception. The neat workmanship of the full rickyard gives certainly more than an imaginary respectability to the farmhouse, but the cost of the embellishment is too great. In these cases the stacks are generally close behind the barn and stables. The haystack often stands in the row, and the straw-stacks are as near the doors of the stable and the cow-sheds as may be.

And here, early and late, the labourer, the ploughman, and the boy have to pass and repass. That they use lucifers and candles we know; and that an accident, while human nature is fallible, may occur, cannot be denied; and especially while smoking is so universal a habit. When a fire occurs under such circumstances the loss is seldom partial. In fact the risk of disaster, and the consequences when it does occur are both augmented by the practice, which would be "more honoured in the breach than in the observance," and which may be obviated so easily. The prevalent and dangerous practice has no advantage of convenience or cost in its favour. Indeed, where the farm is wide and the crops distant, it interferes with harvest labour to bring it together, and it might be stacked more readily and at less cost at a short distance from the field. In such case it has eventually to be carted home, but labour is not so expensive at thrashing-time as it is in harvest. Moreover, when the crop is brought to the premises *in* harvest, it has to be removed to some

convenient place to be thrashed, or it is thrashed where it is in stack, and the straw removed afterwards—a most costly process. So far as economy is concerned, it may as well, therefore, be stacked in any convenient isolated locality as at the farm steading; for an extra cart will at any time bring the grain to the machine as fast as is required when the stack is at some distance; and it requires two such carts to do the work when the stack is in the yard. Horses being no cost, an extra cart only involves an extra boy to drive. And this charge, belonging to the outfield stacking system, which we recommend, is more than counterbalanced by the less cost at harvest of stacking in or near the field rather than carting it home. There can, therefore, be no practical objection to the system of storing corn which we advocate, so far as expense and inconvenience are concerned; and as regards the greater freedom from accidental fire, and the certainty of diminished loss accruing should such a casualty occur, the advantage is at once patent and indisputable. When the year's crop is divided, in case fire should occur, there must be a valuable salvage.

The same farm fire to which we have previously alluded furnishes us with a fact bearing on this point, which bears conclusively on the question. In the year in which the serious fire occurred, the corn crop of the farm was stacked in *three different* places at considerable distances from each other, there being 17 stacks in each lot. The loss that occurred amounted to

£1,400, and was nearly covered by insurance. Had the prevalent system, which we now condemn, been adopted, and the 51 stacks placed together, the whole would have been consumed, and the loss threefold. We saw the three rickyards the other day, felt the good sense of that mode of securing the crop, photographed from our memory the picture of what occurred a few years ago, and transcribed the lesson for the benefit of the public interested in farm practice.

To small as well as large farms the mode advocated commends itself, and our picture applies. When all is lost nothing remains; an axiom upon which the impolicy of putting all our eggs in one basket is based.

A correspondent of the *Mark Lane Express* calls attention to the sudden change made by the insurance offices in London on the mode of insuring farming stock and produce: "Notices have been issued that, on and after June 24 last, the 'Average clause policy' system is to be introduced into insurances on farming stock. A special condition provides that 'If the sum insured on agricultural produce, either separately or in one amount with other property, shall at the breaking out of a fire be less than three-fourths of the value of all the property insured in that amount, then the company shall be liable only for such a proportion of the loss sustained as the sum so insured shall bear to the total value of all the property to which the sum applies.'"

WORSLEY AND SWINTON AGRICULTURAL SOCIETY.

This Society, which includes the district comprised within a radius of eight miles from Worsley Courthouse, held its fifth annual exhibition in the Park. The weather was all that could be desired, and although the district can scarcely be designated as one purely devoted to agriculture, yet, judged from the success experienced last week, it promises to rank high among district gatherings. The horned cattle were not a numerous show. Best bull of any breed above three years old, Henry Neild, The Grange, Worsley, for Blair Athol, an aged bull; and for the best bull, not exceeding three years old, Hugh Higson, of Pendleton. Best bull of any breed, not exceeding two years, C. W. Brierley, Rhodes House, Middleton; Thomas Statter, jun., Stand Hall, second. Best bull, not exceeding one year, Nathaniel Rothwell, Great Lever, Bolton; Thomas Statter again taking second place. Silas Dorning, of Little Wardley, Worsley, was first for the best cow for dairy purposes, in milk or in calf; and for the best lot of milch cows, Nathaniel Bothwell received the first and second prize. Best pair of two years old heifers, Hugh Higson, of Peadleton; Henry Neild, of Worsley, second. Best pair of year old heifers, Thomas Statter, jun. Best lot of calves under one year old, bred by tenant-farmers, Thomas Stone, of Old Hall Farm, Worsley; Thomas Stone was also fortunate enough to take the same place for the best heifer calf. C. W. Brierley took first prizes in three successive competitions, viz., best fat or barren cow, best cow or heifer of any breed in milk or in calf, and best one-year-old heifer, Hugh Higson, New Hall Farm, Pendleton, taking second in the two latter classes. Horses were a more numerous exhibition. There were 135 entries in the various classes. Best district stallion, Thomas Stanbank, Sinderland, Dunham Massey, for a six years old; Samuel Norbury, Cheadle, first prize, for the best thoroughbred stallion. Best roadster stallion, C. Lund, of the Castle Hotel, Preston. The hunters entered for the leaping trials numbered six. For the best hunters to carry 14 stone, the Society's silver cup was awarded to Downshire, from the stables of William Murray, of Broughton Mews, Manchester; the horse, a clever grey gelding, six years old, and born in Ireland, was established first favourite after clearing the first fence, and skimmed the re-

mainder admirably; William Thompson, of Lower Broughton, second; and Thomas Statter, jun., third. W. Murray was again successful in the competition for hunters. A seven years old brown mare, Brunette, also said to be born in Ireland, received the first award and the Society's silver cup, as the best animal for carrying 12 stone; Joseph Walker, Broomhurst, Eccles, second. Best roadster, Charles L. Clare, Higher Broughton; William Hampson, of Yew Bank Mews, Lower Broughton, second. Best cob, Joshua Fielden, Lostock Grange, Bolton. Best pair of draught horses, C. W. Brierley. Best brood mare, T. Statter, jun. Best roadster brood mare, James Higson, Thomas-street, Manchester. Best pair of horses, suitable for agricultural purposes, H. Neild. Best mare or gelding, for the same purpose, C. W. Brierley. Best filly, J. Hampson, Vicar Hall Farm. Best mare or gelding used this year in the Duke of Lancaster's Yeomanry at permanent drill, and also generally employed for agricultural purposes, W. Isaac Challinor, Worsley; Joseph Gregory, Walkden, second. Best two years old gelding, suitable for agricultural purposes, Timothy Booth, Middle Hulton; and in the same class for one year-old, Robert Barker, of Brightmet, near Bolton, was similarly placed. William Murray, of Broughton, added another to his list of prizes, by taking the first for ponies not exceeding 13½ hands high. Ponies not exceeding 12½ hands, Howarth Ashton, Polefield Hall, Prestwich. The following awards were also made by the judges: Draught foal, T. Statter, jun.; half-bred foal, Peter Nightingale, Worsley, Very few sheep were shown. The first and second awards for the best long-woolled ram fell to H. Neild, of the Grange; the same gentleman also receiving the first premiums for the best three long-woolled ewes, short-woolled ewes, and short-woolled ram. In the latter competition Mr. Neild took both first and second awards. Thomas Stone, of the Old Hall Farm, received the award for the best pen of lambs. Pigs were a better show, but Peter Eden, Salford, who exhibited in six of the classes, took first and second prizes in all. Best cottagers' breeding sow, W. Richardson, of Moorside, Swinton; for store pigs, W. Barlow, of Partington, Swinton; for the Berkshire breed, Henry Boddington, of Monton House, Eccles.

AIREDALE AGRICULTURAL SOCIETY.

MEETING AT BINGLEY.

The total entries of exhibitors were rather under those of the previous year, there being 651 in 1869, and only 628 this year. In the horned cattle department there was a marked decrease, owing to the spreading of the foot-and-mouth disease, the dread of which prevented many who would otherwise have been exhibitors from sending their animals to the show. The following is the prize list:

CATTLE.

Short-horned bull.—First prize, E. D. A. Marriner, Worthville, Keighley; second, G. Dibb, Wild Grove, Tyersal.

Short-horned cow or heifer, any age.—First prize, J. H. Hutchinson, Manor House, Catterick; second, E. D. A. Marriner.

(Open to tenant farmers, chiefly dependent on their farms for a living.)

Short-horned bull, above twelve months old.—First prize, M. Lamb, Caley Farm, Otley; second, J. Robershaw, Grange, Allerton.

Short-horned bull calf, under twelve months old.—First prize, J. H. Hutchinson; second, T. Hird, Snail House, Skipton.

Short-horned cow or heifer, above two years old.—First prize, T. Hird; second, J. Robertshaw.

Short-horned heifer, under two years old.—First prize, J. Renton, Farnley, Otley; second, J. Renton.

Short-horned heifer calf, under twelve months old.—First prize, J. H. Hutchinson; second, J. Atkinson, Bingley.

Cow, for dairy purposes.—First prize, Miss M. E. C. Bentley; second, J. Simms, Cottingley Moor, Bingley.

HORSES.

Hunter.—First prize, J. B. Booth, Killerby Hall, Catterick; second, H. Crossley, Broomfield, Halifax; third, J. Robson, Old Malton, Malton.

Leaper.—First prize, L. B. Morris, Thornton-in-Craven; second, W. Sugden, Haworth; third, H. Butler, Bingley.

Roadster stallion.—First prize, P. Kirby, North Driffield; second, J. and H. Cockshott, Cringles, Silsden.

Draught stallion.—First prize, J. Forshaw; second, T. Greenwood, Calverley Bridge.

Horse or mare in single harness.—First prize, Fox & Whitely, Allerton; second, J. Smith, Piccadilly, Bradford.

Nag or roadster.—First prize, T. Clarkson, Melbourne Street, Leeds; second, E. Charlesworth, Roley Villa, Bradford.

Cob, under fifteen hands.—First prize, W. White, Armthorpe, Doncaster; second, H. Crossley, Broomfield, Halifax.

Roadster brood mare.—First prize, J. Clark, Beeston, Leeds; second, J. White, Whetley Hall, Bradford.

Roadster gelding or filly, three years old.—First prize, B. Baxter, Elslack; second, H. Green, Glusburn.

Roadster, gelding or filly, two years old.—First prize, D. Newsome, Whack House, Yeadon; second, T. Speight, Scholes, Cleckheaton; third, W. Tillotson, Howden Park.

Roadster, gelding or filly, one year old.—First prize, G. Newsome, Carlton Grange, Dewsbury; second, John Frankland, Wilden Hill; third, A. Blakey, Addingham.

Draught brood mare.—First prize, E. and W. Pawson, Burley-in-Wharfedale; second, T. Greenwood, Calverley Bridge.

Draught gelding or filly, three years old.—First prize, W. Clough, Cottingly; second, Mrs. Dennison, Heaton Royds.

Draught gelding or filly, two years old.—First prize, J. Moore, Cottingly; second, W. Hartley, Gledhow, Leeds.

Draught gelding or filly, one year old.—First prize, E. Haley; second, J. Snowdon, Cottingly.

Draught mare or gelding.—First prize, J. Clarke, Beeston, Leeds.

Mare or gelding for general purposes.—First prize, Glover, Son and Co., Bradford; second, I. Freer, Ovenden.

Pony, above 12½ hands and not exceeding 14 hands.—First prize, J. Gresham, Far Headingley; second, W. White, Armthorpe, Doncaster.

Pony, under 12½ hands.—First prize (equal), J. Arnold, Bradford, and J. G. Hey, Cleckheaton; second (equal), J.

Anderton, Springfield, Bingley, and E. Milnes, Toller Lane, Bradford.

Pony leaper, above 12½ hands and not exceeding 14 hands.—First prize, J. W. Townsend, Newsam Green, Temple Newsam; second, S. Proctor, Bradford; third, W. Lamb, Rochdale.

Pony leaper, under 12½ hands.—First prize, T. Sunderland, Halifax; second, R. W. Hall, Eccleshall; third, J. G. Hey.

SHEEP.

LEICESTER OR LONG-WOOLLED.

Ram, any age.—First and second prizes, J. H. Hutchinson.

Ram lamb.—First and second prizes, J. H. Hutchinson.

Pen of three ewes, any age.—First and second prizes, J. H. Hutchinson.

Pen of three ewe lambs.—First prize, J. H. Hutchinson; second, M. Lamb.

LONKS.

Ram, any age.—First prize, J. M. Green, Keighley; second, J. Hoyle, Cliffe Green, Keighley.

Ram lamb.—First prize, B. Dobson, Craiglands, Ilkley; second, M. Hanson, Iligh Utley, Keighley.

Pen of three ewes, any age.—First prize, J. G. Bridge, Edge Coates, Rawtenstall; second, C. Sedgwick, Riddlesden Hall, Keighley.

Pen of three ewe lambs.—First prize, J. M. Green; second, J. G. Bridge, Rawtenstall.

Ewe lamb.—First and second prizes, J. M. Green.

CROSS-BRED SHEEP.

Pen of three ewes, any age, first cross from lonks.—First prize, C. Sedgwick; second, J. Midgley, Meadow Field, Keighley.

Pen of three ewe lambs, first cross from lonks.—First prize, J. Gill, Howden Park, Silsden; second, B. Baxter, Elslack.

PIGS.

Boar, large breed.—First and second prizes, W. Lister, Armley.

Boar, middle breed.—First prize, J. E. Fox, Great Horton; second, C. Roberts, Wakefield.

Boar, small breed.—First prize, W. Hatton, Addingham.

Sow, large breed.—First prize, W. Lister, Armley; second, G. Andrews, Tuxford, Newark.

Sow, middle breed.—First prize, W. Greetham, Legrams Lane, Bradford; second, J. Knight, Bogs, Allerton.

Sow, small breed.—First and second prizes, W. Hatton.

Store pig, under nine months old.—First prize, F. Bramfit, Manor Street, Leeds; second, J. Bullock, Bradford.

Fat pig, under twelve months old.—First prize, M. Walton, Halifax.

LABOURING MEN'S PREMIUMS:

Store pig, under nine months old.—First prize, J. Mitchell, Saltaire; second, W. Midgley, Fell Lane, Keighley; third, D. Keighly, Exleigh Head, Keighley.

Fat pig, under twelve months old.—First prize, J. Sugden, Fell Lane, Keighley; second, J. Reeday, Keighley; third, W. Dracup, Saltaire.

THE PRESERVATION OF EGGS.—The *Journal de Pharmacie de Chimie* contains an account of some experiments by M. H. Violette, on the best method of preserving eggs, a subject of much importance in France. Many methods had been tried; continued immersions in lime-water or salt-water; exclusion of air by water, sawdust, etc., and even varnishing has been tried, but respectively condemned. The simplicity of the method adopted on many farms, namely, that of closing the pores of the shell with grease or oil, had however, attracted the attention of the author, who draws the following conclusions from a series of experiments on this method; Vegetable oils, more especially linseed, simply rubbed on the egg hinders any alteration for a sufficiently extensive period, and presents a very simple and efficacious method of preservation, eclipsing any methods hitherto recommended or practised.

WORCESTERSHIRE AGRICULTURAL SOCIETY.

MEETING AT KIDDERMINSTER.

The Worcestershire agriculturists are following the example of their neighbours in Warwickshire and Gloucestershire, and instead of always holding their annual show in connection with their society in one locality, they have resolved to make it migratory. This year is the first time they have tried the experiment, and they have had every encouragement so far in their scheme.

There were 284 entries in all—viz., 76 of cattle, 67 of sheep, 32 of pigs, 53 of horses, 6 of wool, 7 of barley, and 38 of implements, &c. From these, however, a slight percentage has to be taken off for withdrawals. There were 79 exhibitors of live stock, wool, and barley, and 37 of implements.

The show of Herefords may be set down as good but few. The Shorthorns were also very fair. Amongst the sheep the Leicesters were not largely exhibited, and made but a poor competition. The shearling rams in the next class (long-woolled, not being Leicesters) were particularly good. The rams of any age were also good. Theaves and ewes in this class were less meritorious. The Shropshire sheep were excellent, and many of the best breeders competed.

The judges were:

CATTLE.—H. Haywood, Hereford; T. Morris, Gloucester; J. K. Fowler, Alesbury.

SHEEP AND PIGS.—G. A. May, Tamworth; C. Hobbs, Cricklade.

CART HORSES.—J. Manning, Ordlingbury, near Wellingborough.

HORSES (HUNTERS, HACKS, AND PONIES).—T. Haywood, Hereford.

WOOL.—J. Naylor, Kidderminster.

BARLEY.—R. Woodward, Arley Castle.

PRIZE LIST.

CATTLE.

HEREFORDS.

Bulls above two years old.—First prize, T. Rogers, Coxall, Brampton Bryan; second, J. Twinberrow, jun., Suckley, Worcester, Monarch (3260).

Bulls above one and under two years old.—First prize, R. Tanner, Prodesley, Salop (Pousonby) (2498); second, J. S. Walker, Knightwick, Worcester.

Cows in milk or in calf.—First prize, R. Tanner (Queen); second, J. Smith, Shelsley Walsh, Worcester.

Two-year-old heifers, in milk or in calf.—First prize, R. Tanner; second, P. Turner, Leen, Pembridge, Leominster.

Yearling heifers.—First prize, R. Tanner; second, P. Turner; third, J. S. Walker.

Three dairy cows of any breed, in milk.—First prize, Earl Beauchamp, Madresfield Court, Malvern (Miss Valentine); second, E. Beauchamp (Worcester 2nd).

SHORTHORNS.

A special prize of £25, for the best bull in Shorthorn classes.—Lord Sudeley (Mandarin).

Bulls above two years old.—First prize, Lord Sudeley, of Toddington, Winchcomb (Mandarin); second, G. Garne, Churchill Heath (Royal Butterfly 20th) (25007).

Bulls above one and under two years old.—First Prize, S. and J. Perry, Acton Pigott, Cawdover, Salop (Duke of Lancaster); second, Thomas Garne and Son, Broadmoor, Northleach (Rolla); third, James Webb, Fladbury, Pershore (Saturnus).

Cows in milk or in calf.—First prize, George Garne (Pride of the Heath); second, Jacob Dove, Hanbrook House, Hambrook, Gloucestershire, (Garland).

Two year old heifers in milk or in calf.—First prize, James Webb (Bella) (24829); second, Thomas Garne and Son (Nonpariel); third, Jacob Dove.

Yearling heifers.—First prize, Henry Allsopp, Hindlip Hall,

Worcester; second, Jacob Dove; third, Thomas Garne and Son (Pattern).

Three dairy cows of any breed, in milk.—First and second prizes, Earl Beauchamp (Miss Valetine and Worcester 2nd).

SHEEP.

LEICESTERS.

Five breeding ewes, having had lambs in 1870, and suckled them up to June 1st.—First and second prizes, T. Harris, Stoney Lane, Bromsgrove.

Five theaves.—First and second prizes, T. Harris.

Shearling ram.—First and second prizes, G. Turner, jun., Alexton Hall, Uppingham.

Ram of any age.—First prize, G. Turner, jun.; second T. Harris, Stoney Lane, near Bromsgrove.

LONG-WOOLLED, NOT BEING LEICESTERS.

Five breeding ewes, having had lambs in 1870, and suckled them up to June 1st.—First prize, J. Webb, Fladbury, Pershore.

Five theaves.—First prize, W. Smith, Bibury, near Fair-Fairford; second, T. Beale Browne, Salperton Park, Andoversford.

Shearling rams.—First prize, W. Smith; second, T. Beale Browne.

Ram of any age.—First and second prizes, T. Beale Browne.

SHROPSHIRE.

Five breeding ewes, having had lambs in 1870, and suckled them up to June 1st.—First prize, C. R. Keeling, Yew Tree Farm, Henkley; second, W. C. Firmston, Rockingham Hall, Hagley, Stourbridge; third, W. Baker, Moor Barns, Atherstone.

Five theaves.—First prize, W. C. Firmstone; second C. R. Keeling; third, W. Baker.

Shearling rams.—First prize, Sarah Beach, The Hattons, Brewood, Penkridge; second, C. Randell, Chadbury, Evesham.

Rams of any age.—First prize, Sarah Beach; second W. Baker.

CROSS-BRED.

Five breeding ewes, having had lambs in 1870, and suckled them up to June 1st.—First and second prizes, J. Webb.

Five theaves.—First prize, J. Webb.

PIGS.

Boar pigs of any age.—First and second prizes, J. Wheeler, Long Compton; third, R. E. Duckering, Kirton-Lindsey.

Sow with pigs, the age of the pigs not to exceed 4 months.—First prize, J. Wheeler; second, R. E. Duckering; third, M. Walker, Stockley Park, Burton-on-Trent.

Two litters, above four and under twelve months old.—First prize, R. E. Duckering; second, H. Allsopp, Hindlip Hall, Worcester; third, J. Wheeler.

HORSES.

Stallion cart horse for agricultural purposes.—First prize, W. Wynn, Cranhill Leys, Grafton, Alcester; second, W. Dukes, Cefn Cock, Llanarth, near Raglan.

Pair of cart geldings or mares (or gelding and mare), above four years old, which have been regularly worked.—First prize, S. Davis, Woolashill, Pershore; second, R. Woodward, Arley Castle, near Bewdley.

Cart mare and foal.—First prize, Lord Sudeley; second, R. Woodward.

Cart filly or gelding, two and under three years old.—First prize, J. Thayers, Crickley-hill, Gloucester; second, S. Davis, Woolashill, Pershore.

Thoroughbred stallions, that have served mares regularly in the county of Worcester during the season of 1870.—First prize, Earl of Coventry, Croome Court, Kempsey, Worcester; second, H. Cowley, Blakeshill Farm, Hinton, near Evesham.

Hunters equal to 14 stone (open to all England).—First

prize, E. W. Haywood, Sillins, Redditch; second, W. Stephenson, Cottingham, Hull, Yorkshire.

Hunters, irrespective of weight (open to all England).—First prize, C. Cook, Taddington, Wincheomb; second, T. Tayler, Manor House, Turkdean, near Northleach.

Hunters that have been ridden in the past season with hounds.—First prize, Earl Coventry; second, W. Colman, Waiton House, Tewkesbury.

Hunters, the property of tenant farmers resident in Worcestershire, and been ridden by themselves in the past season with the Worcestershire hounds.—First prize, N. Smith, Martley, Worcester; second, E. Bayliss, Hownings, Hanbury, near Droitwich.

Hunting mares or geldings, under five years old.—First prize, W. Stephenson; second, J. G. Watkins, Woodfield, Droitwich.

Hack not exceeding fifteen hands.—First prize, C. Cook, Taddington, Wincheomb.

Weight-carrying cob, not exceeding fifteen hands.—First prize, J. Hillman, Kidderminster.

Pony, above twelve and under fourteen hands.—First prize, J. G. Boraston, Sutton, Kidderminster.

Brood Mare for producing hunters.—First prize, D. Roxburgh, Little Wiley, Worcester.

WOOL.

Tod of wool of the clip of 1870, shorn from long-woolled sheep.—First and second prizes, T. Harris, Stoney Lane, near Bromsgrove.

Tod of wool, of the clip of 1870, shorn from short-woolled sheep.—First prize, R. Hickman, Cotheridge, near Worcester; second, H. Allsopp, Hindlip Hall, Worcester.

BARLEY.

Sample of barley grown in the county of Worcester in the year 1870.—Prize, G. McCann, Court Farm, Malvern.

THE KEIGHLEY AGRICULTURAL SOCIETY.

At the twenty-eighth annual meeting of the Keighley Agricultural Society the Shorthorns were fairly represented; Mr. Richard Stratton, of Burderop, Swindon, Wilts, carried off the first prize for bulls with James the First. He is a prize-taker, well known in the West of England. For bulls above one year old Mr. Statter, of Whitefield, Manchester, was first, with one which has been a prize-taker at Preston, Blackpool, Burnley, Rossendale, Penistone, and other shows. There were seven entries in the class of bull calves; the first premium being secured by Captain Tennant, of Scarcroft, Leeds. Captain Tennant was also successful in shorthorn cows in calf or milk—with White Rose, which has taken a first prize and a cup at Thirsk, and was also a prize-taker at the Yorkshire show. The classes of cows in the department of gentlemen's premiums were throughout good, the class of dairy cows being perhaps the strongest. The grand competition in this department, however, was the £50 prize for the best three Shorthorns. Mr. Stratton eventually came off victor with the bull already referred to, and a two-year-old and one-year-old heifer, which were also prize-takers in their classes. Mr. Statter was awarded a second prize of £10, and Captain Tennant a third of £5. The show of horses was not only large, but good. There were ten entries in the three classes of stallions, and several of the horses shown were prize-takers. The classes of draught geldings and fillies were but poorly represented, but there were a great many entries, and some very good horseflesh in the hunter and hack classes; while the draught horses were creditable. There were fewer entries of sheep than last year.

JUDGES.—SHORTHORNS: The Rev. M. C. Wood, Poulton-le-Fylde; W. Sandy, Holme Pierpoint, Notts; H. W. Beauford, Bedford.

HORSES: T. Gibbon, Burnfoot-on-Esk; L. Hodgson, Highthorn House, Easingwold, J. Smith, Humberston, Borough-bridge.

SHEEP: G. W. Langdale, Park House, Leconfield; W. Robson, Great Ouseburn, York. Lonk Sheep: G. Browne, Troutbeck, Windermere.

PIGS: J. Dixon, Bradford; J. Calshaw, Towneley, Burnley. CROPS: H. Ambler, Watkinson Hall; J. Renton, Farnley, Oley.

BUTTER: W. Peacock, Malham.

PRIZE LIST.

CATTLE.

(OPEN TO THE UNITED KINGDOM.)

Shorthorn bull above two years old.—First prize, R.

Stratton, Burderop, Swindon, Wilts; second, T. Statter, jun., Standhill, Whitefield, Manchester.

Bull above one year old.—First prize, T. Statter, jun.; second, A. Hathorn, Smeathalls.

Bull calf under twelve months old.—First prize, Captain R. Tennant, Scarcroft Lodge, Leeds; second, T. H. Hutchinson, Catterick.

Shorthorn cow in milk or calf.—First prize, Captain R. Tennant; second, T. Hird, Small House, Skipton.

Heifer under three years old.—First prize, R. Stratton; second, Captain R. Tennant.

Heifer under two years old.—First prize, R. Stratton; second, T. H. Hutchinson.

Heifer calf under twelve months old.—First prize, E. D. A. Marriner, Keighley; second, T. Statter, jun.

Dairy cow.—First prize, H. Crossley, Watkinson Hall, Halifax; second, Miss Bentley, Allerton.

Alderney or Guernsey cow or heifer.—First prize, E. Holmes, Keighley.

Best three Shorthorns.—First prize, R. Stratton; second, T. Statter, jun.; third, Captain R. Tennant.

Shorthorn bull above two years old.—Prize, E. D. A. Marriner.

Bull under two years old.—First prize, S. Newall, Skipton; second, B. Baxter, Elslack Hall.

Bull calf under twelve months old.—First prize, B. Baxter; second, T. Hird.

Shorthorn cow in milk or calf.—First prize, T. Hird; second, Miss M. E. C. Bentley.

Heifer under three years old.—First and second prize, T. Hird.

Heifer under two years old.—First prize, T. Hird; second, L. Robertshaw, Springfield, Allerton.

Heifer calf under twelve months old.—First prize, E. D. A. Marriner; second, B. Baxter.

HORSES.

(OPEN TO THE UNITED KINGDOM.)

Coaching stallion.—First prize, Captain Sateliffe, Sutton House, second, Parkinson Fort, Wilsden.

Roadster stallion.—First prize, H. R. W. Hart, Dunnington Lodge, York; second, J. & H. Cockshott, Cringles, Silsden.

Draught stallion.—First prize, J. Forshaw, Burley-in-Wharfedale; second, T. Greenwood, Calverley Bridge.

Two years old draught gelding or filly.—Prize, J. Moore, Cottingley.

One year old draught gelding or filly.—First prize, E. Haley, Allerton; second, E. Briggs, Wilsden.

Three years old roadster gelding or filly.—First prize, J. White, Bradford; second, R. Baines, Keighley.

Two years old roadster gelding or filly.—First prize, T. Speight, Scholes, Cleckheaton; second, D. Newsom, Yeadon.

One year old roadster gelding or filly.—First prize, J. Duckett, West Morton; second, J. Ogden, Laycock.

Draught brood mare.—First prize T. Statter, jun.; second, E. & W. Pawson, Burley-in-Wharfedale.

Roadster brood mare.—First prize, J. White; second, W. H. Davis, Gargrave.

Draught horse or mare.—First prize, J. Clarke, Beeston; second, H. Glover, Son & Co., Bradford.

Nag or roadster.—First prize, H. Mason, Bankfield, Cottingley; second, E. Charlesworth, Roley Villa, Bradford.

Cob, not to exceed 16 hands.—First prize, H. Crossley, Broomfield, Halifax; second, A. Hauxwell, Thirsk.

Pony under 13½ hands.—First prize, A. Hauxwell; second, J. Maude, Leeds.

Lady's horse or mare.—First prize, Captain Smith, Cheltenham; second, Adam Dugdale, Rose Hill, Burnley.

Horse or mare in single harness.—First prize, J. White; second, F. W. Waller, Bradford.

Best hunter.—First prize, S. J. Welfitt, Tathwell Hall, Louth; second, J. B. Booth, Killerby Hall, Catterick.

Leaper.—First prize, H. Johnson, Spofforth; second, W. M. Darley, Thorne; third, Captain Smith.

SHEEP.

(OPEN TO THE UNITED KINGDOM.)

Leicester or any other longwooled ram, two-shear or aged.—First and second prize, T. H. Hutchinson, Catterick.

Leicester or any other longwooled ram, one-shear.—First and second prize, T. H. Hutchinson.

Leicester or other longwooled tup lamb.—First prize, T. H. Hutchinson; second, G. Greaves, Poole, Otley.

Pen of three Leicester or any other longwooled ewes, two-shear.—First and second prize, T. H. Hutchinson.

Pen of three Leicester or any other longwooled ewes, one-shear.—Prize, T. H. Hutchinson.

Pen of three Leicester or any other longwooled ewe lambs.—First prize, T. H. Hutchinson; second, M. Lamb, Caley Farm.

Leicester or any other longwooled ewe lamb.—First prize, M. Lamb; second, W. Laycock, Woodville.

LONKS.

(OPEN TO THE UNITED KINGDOM.)

Ram, two-shear or aged.—First prize, J. Hoyle, Laycock; second, J. Smith, Keighley.

Ram, one-shear.—First prize, J. M. Green; second, J. Smith, Hainworth.

Tup lamb.—First prize, B. Dobson, Craiglands, Ilkley; second, M. Hanson, High Utley.

Pen of three ewes, two-shear or aged.—First prize, J. M. Green, Black Hill; second, J. B. Sidgwick, Riddlesden Hall.

Pen of three ewes, one-shear.—First prize, J. B. Sidgwick; second, J. Craven, Park House, Steeton.

Pen of three ewe lambs.—First prize, J. M. Green; second, J. Smith.

Ewe lamb.—First and second prizes, J. M. Green.

Pen of three ewe lambs, first cross from Lonk ewes.—First prize, B. Baxter, Elslack Hall; second, J. Gill, Howden Park, Silsden.

Ewe lamb, first cross from Lonk ewes.—First prize, J. M. Green; second, J. Gill.

P I G S.

(OPEN TO THE UNITED KINGDOM.)

Best pig.—Prize, P. Eden, Salford.

Boar, large breed.—First prize, P. Eden; second, W. Lister, Armley.

Boar, small breed.—First prize, P. Eden; second, W. Hatton, Addingham.

Boar, middle breed.—First prize, J. E. Fox, Great Horton; second, C. Roberts, Wakefield.

Boar, large breed, under nine months.—First prize, J. Palmer, Thorby; second, T. Trees, Skipton.

Boar, small breed, under nine months.—First prize, J. Swire, Morton; second, J. Reeday, Keighley.

Boar, middle breed, under nine months.—First prize, J. Cawood, Keighley; second, W. Birtwhistle, Bradley.

Breeding sow, large breed.—First prize, P. Eden; second, R. E. Duckering, Northorp, Kirton Kinsley.

Breeding sow, small breed.—First prize, W. Hatton; second, R. E. Duckering.

Breeding sow, middle breed.—First prize, W. Greetham, Horton; second, R. E. Duckering.

Gilt, large breed, under nine months, for breeding.—First prize, P. Eden; second, T. Slater, Keighley.

Gilt, small breed, under nine months, for breeding.—First prize, J. Hudson, Yeadon; second, J. B. Sidgwick.

Gilt, middle breed, under nine months, for breeding.—Prize, J. B. Sidgwick.

Pig of any class, in best condition.—Prize, W. Hatton.

R O O T S.

Six swede turnips.—First prize, J. Riley, Junction Cross Hills; second, T. Brigg, Guard House.

Six yellow turnips.—First prize, J. Kidd, Sutton; second, R. Petty.

Six white turnips.—Prize, A. Wilkinson, Morton Banks.

Six Scotch cabbages.—First prize, J. Riley; second, T. Brigg.

B U T T E R.

Two pounds of batter, 1lb. in roll, and 1lb. in print.—First prize, B. Smith, Kildwick Grange; second, T. Blakey, Siladen.

CRAVEN AGRICULTURAL SOCIETY.

MEETING AT SKIPTON.

In one respect the exhibition was characterised by a decline. None of the great breeders of Shorthorns were represented, although some of them had entered, but this was not attributable to any mismanagement or insufficiency of awards, but to the simple fact that those possessed of very valuable stock were frightened off the ground by supposed danger from the foot-and-mouth disease. There were only two bulls in the aged class. Captain Tennant secured the first honour, and was successful in most of the classes in which he competed, and was awarded the 20-guinea cup for the best collection of Shorthorns. Amongst the horses the stallions were good and brood mares, two-year-old geldings, cobs and ponies, were brought forward in fair numbers.

JUDGES—SHORTHORNS: George Drewry, Holker; Thomas Atherton, Speke, near Liverpool. HORSES: Wm. Owen, Norris Green, West Derby; John Bromley, Lancaster. PIGS: Stephen Barrett, Harewood; Joseph Culshaw, Towneley, Burnley. ROOTS, BUTTER, CHEESE, and OAT-CAKE: Joseph Culshaw.

P R I Z E L I S T.

CATTLE.

SHORTHORNS.

(Open to the United Kingdom.)

Bull, two years old and upwards.—First prize, Captain Tennant, Scarcroft Lodge; second, E. D. A. Marriner, Keighley. Yearling bull.—Prize, A. Hathorn, Ferrybridge.

Bull calf, under twelve months old.—First prize, Captain Tennant; second, A. Bell, Burnley.

Cow in-calf or milk, of any age.—First prize, Captain Tennant; second, T. Hird, Skipton.

Two years old heifer.—First prize, G. Hargreaves, Shipley; second, W. Gomersall, Otterburn.

Yearling heifer.—First prize, Captain Tennant; second, W. Bissett, Malham Tarn.

Heifer calf, under twelve months old.—Prize, E. D. A. Marriner.

Collection of four Shorthorns.—Prize, Captain Tennant.
(Open to Tenant Farmers in the District only).

Bull, two years old and upwards.—First prize, John Farrer, Thornyholme, near Burnley; second, Micah Lamb, Cayley Farm, Otley.

Yearling bull.—First prize, Benj. Baxter, Elslack Hall, Skipton; second, Samuel Newall, Eastby.

Bull calf, under twelve months old.—First prize, Benjamin Baxter; second, John Renton, Farnley, Otley.

Cow, in calf or milk, of any age.—First prize, Alex. Bell, Peaddle Forest, Burnley; second, Thomas Hird, Smallhouse, Skipton.

Three years old heifer, in calf or milk.—First prize, John Farrer; second, Thomas Hird.

Two years old heifer, in calf or milk.—First prize, J. Farrer, second, A. Bell.

Yearling heifer.—First prize, John Farrer; second, John Renton.

Heifer calf, under twelve months old.—First prize, Benj. Baxter; second, John Farrer.

Collection of Shorthorns, not less than three, the property of the exhibitor.—Silver cup, John Farrer.

CATTLE OF ANY BREED.

Calving cow or heifer.—First and second prizes, Thos. Hird.

Two fat Highland heifers.—First prize, J. Harrison; second, W. Butler, Carlton Biggin.

Fat cow.—First and second prizes, J. Ingleby, Clapham.

Fat heifer.—First prize, J. Heyworth, Eastby; second, W. Gomersall, Otterburn.

Two store bullocks.—First and second prizes, R. and G. Hey, Beamsley, Skipton.

HORSES.

(Open to the United Kingdom).

Thoroughbred stallion.—First prize, J. H. Wright, North Riton; second, T. Greenwood, Calverley Bridge.

Roadster stallion.—First prize, J. Gill, Howden Park, Silsden; second, T. Wharton, Skipton.

Draught stallion.—Prize, T. Greenwood.

Brood mare for hunters.—First prize, J. Clarke, Beeston; second, W. Thompson, Rawdon.

Brood mare for roadsters.—First prize, J. Clarke; second, T. Walker, Crookrise, Skipton.

Three years old gelding for hunters.—First prize, Wm. Roberts, Thornyholme, Burnley; second, G. Foster, Burley-in-Wharfedale.

Three years old gelding for roadsters.—W. Duckworth, Addingham; second, B. Baxter.

Three years old gelding or filly for draught.—First and second prizes, J. and R. Bennett, Cawder, Skipton.

Three years old filly for hunters.—First prize, H. Green, Kildwick; second, W. Foster, Stainforth, Settle.

Three years old filly for roadsters.—First prize, H. Green; second, J. Wells, Keighley.

Three years old gelding for hunters.—First prize, W. Roberts, Burnley; second, H. Morphet, Wigglesworth Hall.

Two years old gelding for roadsters.—First prize, S. Watkinson, Gargrave; second, W. H. Davis, Gargrave.

Two years old gelding or filly for draught.—First prize, T. Porter, Clithero; second, J. Moore, Cottingley.

Two years old filly for hunters.—First prize, J. Markendale, Gargrave; second, S. Watkinson.

Two years old filly for roadsters.—First prize, T. Walker, Skipton; second, A. Bowness, Rylstone.

One year old colt or gelding for hunters.—First prize, J. W. Yeadon, Fewstone; second, S. Watkinson.

One year old colt or gelding for roadsters.—First prize, S. Watkinson; second, J. and H. Cockshott, Cringles.

One year old colt or filly for draught.—First prize, J. Jackson, Fewstone; second, W. Butler, Carlton Biggin.

One year old filly for hunters.—First prize, G. Foster, Burley-in-Wharfedale; second, J. Roberts, Leeds.

One year old filly for roadsters.—First prize, J. A. Blakey, Addingham; second, W. Paley, Draughton.

Mare or gelding for roadsters, of any age.—First prize, Captain Dewhurst, Clithero; second, W. Roberts.

Cob under 15 hands high, equal to carry 15 stones.—First prize, H. Crossley, Halifax; second, J. Holroyd, Burnley.

Pony under 13 hands high.—First prize, J. Gresham, Leeds; second, Ann Sutcliffe, Burnley.

Hunters, of any age.—First prize, H. Crossley; second, J. B. Booth, Catterick.

Leaper, of any age.—First prize, L. B. Morris, Thornton; second, Captain Le Gendre N. Starkie, Burnley.

Pony leaper, not exceeding 13½ hands.—First prize, R. L. Hattersley, Keighley; second, W. Wilkinson, Skipton.

SHEEP.

(Open to the United Kingdom).

Long-woolled ram of any age.—First prize, W. Thompson, East Witton; second, J. and W. Pinder, Waddington.

Short-woolled ram of any age.—First prize, J. Coulthurst, Gargrave; second, Jowett, Black Hill.

LONG WOOLS.

(Open to Local Competition).

Ram of any age.—First prize, W. Varley, Airtou; second, J. Simpson, Spofforth Park.

Shearling ram.—First prize, W. Raper, Clint, Ripley; second, J. Simpson.

Top lamb.—First prize, J. Hartley, Bawmier; second, J. Simpson.

Pen of five shearling gimmers.—Prize, J. Simpson.

Pen of five gimmer lambs.—First prize, A. Bentley, Rumley Bridge; second, J. Hartley.

MOUNTAIN (Scotch breed).

(Open to Local Competition).

Blackfaced ram.—First and second prizes, T. Greenwood, Eastby.

Shearling ram.—First prize, J. Young, Hazlewood; second, T. Greenwood.

Top lamb.—First prize, S. Hudson, Broadshaw; second, J. Young.

Pen of five ewes.—First and second prizes, S. Newall, Eastby.

Pen of five shearling gimmers.—First prize, S. Hudson; second, W. Bisset, Malham Tarn.

Pen of five gimmer lambs.—First prize, S. Hudson; second, S. Newall.

Depastured in land the rateable value of which shall not exceed 3s. per acre, for a period of three months next previous to the show. Pen of five two-shear ewes, Scotch breed.—First prize, T. Young, Barden; second, T. Greenwood.

Pen of five wethers, Scotch breed.—First and second prizes, J. Metcalfe, Darnbrook.

LONK.

(Open to Local Competition).

Ram.—First prize, J. Hoyle, Cliffe Green; second, T. Seed, Bashall Town.

Shearling ram.—First prize, J. M. Green, Black Hill; second, W. Riley, Oakworth.

Top lamb.—First prize, B. Dobson, Craiglends; second, M. Hanson, High Utley.

Pen of five ewes.—First prize, J. M. Green; second, J. B. Sidgwick, Ryddlesden Hall.

Pen of five shearling gimmers.—First prize, J. B. Sidgwick; second, W. Butler, Carlton, Biggin.

Pen of five gimmer lambs.—First prize, J. M. Green; second, J. Barker, Brunthwaite.

HALF-BREDS.

(Open to Local Competition).

Pen of five blackfaced Scotch ewes.—First prize, H. Nutter, Skipton; second, W. Lawson, Beamsley.

Pen of five blackfaced shearling gimmers.—First prize, H. Nutter; second, T. Wellock, Toft Gate.

Pen of five blackfaced gimmer lambs.—First prize, A. Robinson, East Seale Park; second, W. Carlisle, Bordley Hall.

Pen of five blackfaced Scotch lambs, depastured upon land the rateable value of which shall not exceed 3s. per acre, for three months next previous to the show.—First prize, T. Wellock; second, T. Young.

Pen of five shearling gimmers, Cheviot.—First and second prizes, W. Wilkinson.

Pen of five gimmer lambs, Cheviot.—First and second prizes, J. Markendale, Banknewton Hall.

Pen of five ewes, Lonk.—First prize, G. Demaine, Dranghton; second, H. Nutter.

Pen of five ewes, Lonk, two-shear.—First prize, G. Demaine; second, H. Nutter.

Pen of five Lonk shearling gimmers.—First prize, J. Midgley, Steeton; second, J. Gill, Howden Park.

Pen of five Lonk gimmer lambs.—First prize, J. Gill; second, B. Baxter, Elslack Hall.

PIGS.

(Open to the United Kingdom).

Boar of the large breed.—First prize, W. Lister, Armley; second, J. Palmer, Thorley.

Boar of the middle breed.—First prize, J. E. Fox, Great Horton; second, S. Appleby, Armley.

Boar of the small breed.—First prize, W. Hatton, Addingham; second, J. Sagar, Lister Hills.

Sow of the large breed.—First prize, W. Lister; second, W. Hatton.

Sow of the middle breed.—First prize, W. Parker, Bradford; second, R. Barrett, Crosshills.

Sow of the small breed.—First and second prizes, W. Hatton.

Boar of the large breed, under nine months old.—First prize, J. Palmer; second, C. Trees, Skipton.

Boar of the middle breed, under nine months.—First prize, W. Lister; second, W. Birtwhistle.

Boar, small breed, under nine months old.—First prize, F. Bramfit, Sheepscar; second, J. Reeday, Keighley.

Gilt of the large breed, under nine months old, for breeding.—First prize, J. Reeday; second, W. Parker.

Gilt of the middle breed, under nine months old, for breeding.—W. Birtwhistle; second, J. Reeday.

Gilt of the small breed, under nine months old, for breeding.—Prize, F. Bramfit.

Store pig, under twelve months old.—First and second prizes, S. Newall, Eastby.

Premiums for Labourers only (open to Local Competition).

Store pig, above nine months old.—First prize, T. Trees; second, J. Reeday.

Store pig, under nine months old.—First prize, J. Reeday; second, D. Keighley, Exley Head.

Gilt of the large breed, under nine months old.—First prize, M. Hindle, Keighley; second, J. Slater, Keighley.

Gilt of the middle breed, under nine months old.—First prize, J. Slater; second, W. Birtwhistle.

Gilt of the small breed, under nine months old.—First prize, W. Birtwhistle; second, T. Trees.

Sow of the large breed.—First prize, T. Walton, Keighley; second, H. Binns, Keighley.

Sow of the middle breed.—First prize, H. Binns; second, T. Walton.

Sow of the small breed.—Prize, S. Wilson, Farnhill.

The annual dinner of the Society was held in the evening, at the Devonshire Arms, and was attended by a company numbering upwards of 100. The Duke of Devonshire presided.

ROCHDALE AGRICULTURAL SHOW.

The fifteenth annual show of the Whitworth and Rochdale Agricultural Society was held on the 24th August. The show surpassed those of previous years. The entries numbered 2,096, whereas last year the number was 1,131, showing an increase of 965. One new feature worthy of notice is that instead of only £10 being offered for "the best beast on the ground," two £10 prizes have been given; one for "the best male beast," and the other for "the best female beast," and the change has given general satisfaction. The entries of hunters for general competition were numerous. For the first time prizes were offered to cottagers for the best pigs, and this had the desired effect of drawing a fine muster.

JUDGES: Horned Cattle: J. Brewer, Whitehouse, Portfield, Whalley; B. Baxter, Elslack Hall, near Skipton. Horses: W. S. Atkinson, Barrowby Hall, Woodlesford, Yorkshire; T. Metcalf, Uttoxeter, Staffordshire; Captain Skipworth, Horsham, Brigg, Lincolnshire; T. Dodds, Warren Cottage, Wakefield. Sheep: W. Parker, Ridge, near Hebden Bridge; L. Crossley, Cliviger Lathie, near Burnley. Pigs: W. Gamon, Hoole Cottage, Dee Mills, Chester; T. Atherton, Chaple House, Speke, near Liverpool.

P R I Z E - L I S T.

HORNED CATTLE.

Bull of any breed.—The challenge cup, value £10, R. Hurst, Rochdale.

Best male beast on the ground, the condition being that the animal should not compete for this prize at any future show of the Society.—A piece of plate, T. Statter.

Best female beast, under similar condition as above.—A piece of plate, C. W. Brierley, Rhodes House.

Bull calf, under twelve months old.—T. Statter.

Cow in calf or in milk.—J. Walton.

Heifer, not exceeding three years old.—J. Farrar, Thornyholme, Burnley.

Heifer, not exceeding two years old.—C. W. Brierley.

Heifer calf, under twelve months old.—J. Farrar.

Two cows, in calf or in milk (open to cattle dealers only).—J. Coates, Rochdale.

Fat ox, or cow, or heifer (open to butchers and dealers).—C. W. Brierley.

Fat calf.—T. Statter.

TENANT FARMERS' PREMIUMS.

Bull of any breed.—C. W. Brierley.

Cow, in calf or in milk.—C. W. Brierley.

Heifer, not exceeding three years old.—C. W. Brierley.

Heifer, not exceeding two years old.—C. W. Brierley.

Heifer calf, not exceeding twelve months old.—J. Walton.

Two cows, in calf or in milk.—C. W. Brierley.

Heifer, not exceeding three years old.—W. Kershaw, Alderbank, Wardle.

Heifer, not exceeding two years old.—R. Fitton, Castleton, Rochdale.

Cow, in calf or in milk.—J. A. Mason, Moorhouse, Milnrow.

Heifer, not exceeding three years old.—J. Bentley, Kit Booth, near Rochdale.

Heifer, not exceeding two years old.—J. A. Mason.

Heifer calf, under twelve months old.—T. Walker, Hindle Pasture, Healey.

HORSES.

Best horse.—C. W. Brierley.

Horse under 16 hands.—Brierley Brothers, Rochdale.

Pair of horses belonging to one party or firm.—C. W. Brierley.

Pair of horses, under 16 hands.—T. Statter.

String of four horses (open to horse dealers and others).—The Mayor, Aldermen, and Burgesses of Rochdale Waterworks.

AGRICULTURAL HORSES.

Best horse.—C. W. Brierley.

Brood mare, together with foal.—T. Statter.

Three-year-old gelding or filly.—J. Willoughby Holt, Wood Road, near Bury.

Three-year-old gelding or filly, adapted for saddle or harness.—J. L. Becker, Foxdenton.

Two-year-old gelding or filly.—W. Roberts, Thornyholme, near Burnley.

One-year-old colt or filly.—R. Kay, Chamberhouse.

Foal, adapted for saddle or harness.—J. F. Crowther, Mirfield, Yorkshire.

Mare or gelding, not exceeding 15 hands, adapted for harness.—H. Crossley, Broomfield, Halifax.

SHEEP.

LONK OR SPECKLE-FACED BREED.

Best tup.—J. G. Bridge, Edge Cote, Rawtenstall.

Tup hogg.—J. M. Green, Black Hill, Keighley.

Tup lamb.—J. Pickup, Newchurch.

Three ewes.—J. G. Bridge.

Three ewe lambs.—J. G. Bridge.

Ewe lamb.—J. M. Green.

Three wethers.—T. Statter.

Finest woolled tup.—J. Bancroft, Shuttleworth, near Bury.
Finest woolled three ewes.—J. Bancroft.
Any other breed of sheep.—J. and W. Pinder, near Blackburn.

Three ewes.—G. Storey, Burnley.
Three tup lambs.—J. Pickup, Turuhill, near Rawtenstall.
Three ewe lambs.—G. Storey.
Fat sheep.—B. Truman, Bluepits.
Best tup within the parish of Rochdale.—S. Jackson, Whitworth.
Tup hogg.—S. Jackson.

Tup lamb.—S. Jackson.
Three ewes and three ewe hogs.—S. Jackson.
Three ewe lambs.—J. Hill, Cowclough, near Rochdale.
Ewe lamb.—J. Parker.
Three wethers.—T. Howarth.
Three wether lambs.—T. Howarth.
Flock of twelve sheep, bred within the parish of Rochdale.—J. Parker.

The President of the Society (Mr. A. H. Roys) entertained the committee and a large circle of private friends at dinner, at his residence, Greenhill.

THE BATH AND WEST OF ENGLAND SOCIETY, AND SOUTHERN COUNTIES ASSOCIATION.

The meeting of the Council of this Society was held on August 30 at the White Lion Hotel, Bristol, under the presidency of the Earl of Cork and Orrery. There was also present Sir J. T. B. Duckworth, Bart., the Hon. and Rev. J. Townshend Boseawen; Messrs. H. G. Andrews, R. Bremridge, Clement Bush, R. H. Bush, Thomas Danger, J. Daw, E. S. Drewe, A. F. Milton Druce, C. Edwards, Jonathan Gray, John Gray, A. Grenfell, J. D. Handcock, J. H. Holley, J. Lush, H. A. F. Luttrell (Col.), R. Neville Grenville, M.P., R. Stratton, J. C. Moore Stevens, R. J. Spiers, W. Thompson, H. Williams, H. Spackman (Official Superintendent), and J. Goodwin (Secretary and Editor).

GUILDFORD MEETING, 1871.

The following is a complete list of the Committees and Stewards for the ensuing year:

PUBLICATION COMMITTEE.—Thomas Dyke Adland, M.P. (Chairman), Hon. and Rev. S. Best, F. W. Dymond, Colonel Luttrell, G. S. Poole, Lord Portman, Herbert Williams.

FINANCE AND CONTRACTS COMMITTEE.—H. Williams (Chairman), J. C. Ramsden, Clement Bush, Charles Edwards.

STOCK PRIZE-SHEET COMMITTEE.—Col. Luttrell (Chairman), Thomas Danger, J. T. Davy, A. F. M. Druce, T. Duckham, M. Farrant, Henry Fookes, C. Gordon, John Gray, James Hole, T. Hussey, J. Webb King, Col. Lennard, H. Middleton, E. F. Mills, W. Rigden, J. S. Turner.

IMPLEMENT REGULATIONS COMMITTEE.—J. E. Knollys (Chairman), Col. Deedes, Mark Farrant, W. Froude, John Gray, Jonathan Gray, A. Grenfell, H. P. Jones, Col. Lennard.

JUDGES' SELECTION COMMITTEE.—Col. Luttrell (Chairman), H. Fookes, John Gray, C. Gordon, Thomas Hussey, Col. Lennard, W. Wippell.

RAILWAY ARRANGEMENTS COMMITTEE.—W. Adair Bruce (Chairman), Col. Brent, Sir J. T. B. Duckworth, C. Gordon, Jonathan Gray, C. Lennard, Sir M. Lopes, Bart., M.P., S. Pitman, J. C. Ramsden, R. J. Spiers; with power to add to their number.

DISQUALIFYING COMMITTEE.—John Gray (Chairman), the Stewards of Steek, the Stewards of Horses.

ARTS AND MANUFACTURES COMMITTEE.—E. S. Drewe (Chairman), T. D. Adland, M.P. (Vice-Chairman), Hon. and Rev. S. Best, Col. Brent, J. Daw, R. R. M. Daw, Sir J. T. B. Duckworth, Bart., Jonathan Gray, Rt. Hon. Sir S. H. Northcote, Bart., C. B., M.P., R. King Meade King, J. E. Knollys, Rev. T. Phillpotts, S. Pitman, W. R. Scott, P. P. Smith, R. J. Spiers, J. W. Walrood, E. W. Williams.

PLACE OF MEETING IN 1872.—As the Society's Annual Meetings are now held alternately in the Eastern and Western Districts, and as the meeting of 1872 would in due course be held in the Western District (including the county of Dorset, &c.), it was resolved to defer the consideration of the place of meeting until the October meeting of Council.

The following communications from Sir J. C. Jervoise, Bart., were read:

“Idsworth, Horndean, August 21, 1870.

“I have lately received the *Journal* of the Bath and West of England Society, 1870. At p. 42 I read that Professor Brown, the Society's Veterinary Inspector, states that persons coming from infected stocks are, perhaps, the cause of more

outbreaks of foot-and-mouth disease than the actual and direct contact of healthy with diseased animals.

“This is so contrary to my own experience that I am most desirous of bringing the question to demonstration, and with this object I shall be glad to place, for the space of one twelvemonth (from September 1st, 1870), twelve out of thirteen Irish steers, purchased in June last, to be infected by Professor Brown, or any member of the Veterinary College he may select, in the way and in the manner referred to by Professor Brown, ‘*otherwise than by actual and direct contact.*’ The visits to be paid at intervals not more frequent than 14 days. In case of his success I shall be ready to pay the sum of one hundred pounds.

“I shall not be bound to the number of twelve cattle against all casualties. I name twelve out of thirteen because one of the number has been a good deal shaken by a severe attack after his journey from Ireland.

(Signed)

“J. CLARKE JERVOISE.

“To the Secretary.

“P.S. I request you will be so good as to place my proposal before the Association. The state of affairs in Dorsetshire narrated in the *Times* of August 19, where the highway from Whitchurch Canonieorum to Bridport is stopped with a view to lessening the danger of contagion to animals passing thereon, with the sanction of Mr. Arthur Helps, will, I trust, justify this communication.”

“August 22, 1870.

“Sir,—Referring to my proposal of yesterday, I beg leave to suggest that ‘member of the Royal College of Veterinary Surgeons’ should be interpreted as any Veterinary Inspector appointed under the Contagious Diseases (Animals) Act; and that in lieu of fortnightly experiments in infection, no subsequent attempt shall be made till within 21 days after the period allowed for the incubation of the disease; and in order to avoid the errors which may arise from accident or coincidence being mistaken for consequence, it shall be necessary for the whole or the majority of the beasts submitted to the experiment to be infected during the course of the twelvemonth dating from September 1st, or, if preferred, October 1st, 1870.

“The cattle will, as a matter of course, not be subjected to any exceptional treatment or habit.

“To remove anxiety on the score of public danger, I beg leave to call to mind the experiments in vaccinating sheep instituted by the Privy Council in the year 1862. I do not know in what locality these experiments were conducted, but I believe they were unattended with evil consequences, and I trust that the experiment proposed will be equally harmless.

(Signed)

“J. CLARKE JERVOISE.

“To the Secretary.”

The reading of the letters was followed by an animated discussion, and it was ultimately resolved, “That the Council thank Sir J. Clarke Jervoise, Bart., for the communication he has made, but after giving it the fullest consideration the Council feel themselves unable to undertake the duty suggested in relation to the proposed experiments.”

NEW MEMBERS.—G. H. Farrant, Salisbury; J. Hutson, East Brent, Weston-super-mare; Rev. W. St. Aubyn Basset, West Buckland, Barnstaple; J. Ellis, Guildford.

SALE OF MESSRS. MITCHELL'S SHORTHORNS, AT ALLOA,

ON THURSDAY, AUGUST 25TH.

BY JOHN THORNTON.

The sale of this herd has for a considerable time been the subject of conversation among many of the admirers of the Booth blood of Shorthorns. Although the brothers Mitchell had not been so happy in their selection of highly fashionable female tribes, yet the known judgment of Mr. Andrew in purchasing good animals of sound lineage, and putting Mr. Booth's bulls upon them, drew together a company of breeders, but not a large assembly of the people, as harvest, which is now on in Scotland, kept many farmers away; this may have had its effect on the average of the bulls, which were not so excellent as the cows and heifers, and made £36 each against £56 for the females. There were, however, several noblemen and breeders present, amongst whom we noticed the Earl of Dunmore, Lord Kellie, Mr. T. C. Booth, Mr. Meadows (Ireland), Mr. Smith, Whittingham, Mr. Nicolmilne, Mr. L. C. Chriss, Mr. Deans from Dalkeith, Mr. Jenkins, Sec. R.A.S.E., Mr. Russell, Mr. A. Campbell, Mr. Easton, Mr. Young from Kier, Mr. Husband, Messrs. Beveridge, Messrs. Cruickshank, Mr. C. Lyall, Mr. J. Bowstead, Mr. Tod, and other noted breeders, besides those whose names are given as purchasers. The cattle had been reared, as Mr. Andrew Mitchell said in returning thanks for his health, at great inconvenience on three farms: one at Alloa, another at Clackmanan, and a third on one of the islands in the Forth; so that, as the stock had to be brought up to Alloa on the morning of sale, several appeared rather lame and foot-sore. The cows were inspected in the buildings in the town where they were certainly seen to much disadvantage, as one gentleman remarked, "he had rarely seen better animals in worse boxes." As a whole, they were really fine animals, possessing great depth of fore-quarter, fine chests and bosoms, broad loins and arched ribs, but often short and coarse hind-quarters; the heads were excellent. The heifers were shown in a field close by, and were a nice even lot, with plenty of substance; some of the calves too were very taking. It often happens that ill-luck precedes a sale. Baron Booth, the first bull and a very noted animal, formerly owned and used by Mr. Barclay, at Keavil; had fallen lame on his hind-legs, and could not be brought out. Malvolio, the second bull, had more beauty than good temper; he was really a very handsome animal out of the noted prize cow Missetoe; but a few weeks before the sale he had rushed from the herdsman and hit his head with such force against a wall that he injured his spine, and was nearly hopeless; this also pulled down the bull average: most of the others were mere calves. Three young bulls of Lord Dunmore's were also shown in nice condition; but the competition, more especially at this season, was not keen for them.

The luncheon took place in the town hall of Alloa, Lord Dunmore in the chair, and soon after one o'clock, Mr. Thornton began the business of the day, in a field opposite Mar's Hill. The majority of the pedigrees traced back to a cow called Rolla, bred by Gen. Simson, and got by Chas. Colling's North Star; this tribe is one of the oldest Scotch pedigrees, and had many very fine animals as its representatives; indeed, Lucy, lot 23, was as beautiful an animal as is often seen. The best tribe was, however, the Belle, bred from Barbelle by Cardigan (12536), a

purchase of Mr. John Wood's, Stauwick Park Sale, 1862, and the five of this tribe averaged £92 each. Blue Bell, the Smithfield prize cow, calved a white calf in April last, and has since won the challenge cup at Stirling as the best cow in-milk, made the top price, and goes to Mr. Cochrane, Canada: her heifer had a peculiar formation of the lower jaw, but was otherwise a fine animal, and went cheap at 59 gs. Cherry Queen, bred from the fashionable Cherry tribe, was a stylish-looking cow, with fine forehead, ribs, and loin; she made the same price as Blue Bell, after some sharp competition with Lord Dunmore. Her calf, a very promising young bull of five months, went for 81 gs., and goes into Staffordshire. The heifer of the Gwynne tribe was of a rich fine colour, and the prettiest of the heifers. Mr. Hay, from New Zealand opposed Sir William Stirling Maxwell and Mr. Pole Gell for her up to 120gs., but she joined her dam and goes into Derbyshire. Pride, of Mr. Chriss's stock, was considered by several the best and sweetest looking cow, and there was much competition for her, but for the other cows the biddings seemed good up to about 30 gs., but as languid afterwards as they were slow in being put up. Mr. Bethune was the largest buyer, and it was said purchased several for Sir David Baird. Mr. Arklay also got some cheap useful cows that go near to Dundee, whilst Mr. Godsman took two of the best into Aberdeenshire. The sheep were not high in condition, but of good character; they were, however, too early in the market, and although the shearlings were all sold, the prices were not high, and the ewes were not sold. Subjoined is a list of the prices and buyers' names.

COWS AND HEIFERS.

Cameron Lass, roan, calved Feb. 4, 1860, by Prince Arthur¹ (13497), dam Miss Haig; A. Bethune, Blebo, 31 gs.
 Lady of the Lake, red and white, calved Aug. 10, 1860, by Prince Arthur, dam Sonsie; A. Bethune, 33 gs.
 Comely 3rd, roan, calved May 31, 1862, by First Fruits (16048), dam Comely 2nd; R. Arklay, Ethiebeaton, 20 gs.
 Pauline, roan, calved June 8, 1862, by Highborn (13028), dam Young Polly; G. Wylie, Ardean, by Dollar, 40 gs.
 Luna, white, calved June 10, 1862, by First Fruits, dam Lucknow; R. Arklay, 32 gs.
 Blue Bell, roan, calved Feb. 4, 1863, by Knight Errant (18154), dam Barbelle; M. H. Cochrane, Compton, Canada, 160 gs.
 Sonsie, roan, calved Jan. 22, 1864, by Arthur Gwynne (19244), dam Lady of the Lake; — Godsman, Aberdeen, 32 gs.
 Maid of Lochty, white, calved Jan. 25, 1864, by Arthur Gwynne, dam Maid of Orr; — Godsman, 40 gs.
 Bella, white, calved March 1864, by Arthur Gwynne, dam Barbelle; R. Mowbray, Cambus, 54 gs.
 Amazon, roan, calved March 20, 1864, by Arthur Gwynne, dam Miss Haig; — Gordon, Cluny, 34 gs.
 Cherry Queen, calved April 27, 1865, by Warrior (23178), dam Cherry; S. Bolden, Springfield, near Lancaster, 160 gs.
 Guerilla, roan, calved May 7, 1864, by First Fruits, dam Nonpareil; J. Young, Alloa, 28 gs.
 Lady of the Isle, roan, calved Jan. 1, 1866, by Sir Samuel (15302), dam Lady Laura; A. Bethune, 35 gs.
 Sarah Gwynne, red, calved Feb. 13, 1866, by Sir Samuel, dam Susan Gwynne; H. Chaudos, Pole Gell, 46 gs.
 Beatrice, red and white, calved April 15, 1866, by Sir Samuel, dam Amazon; R. Binnie, Seton Mans, Haddingtonshire, 33 gs.
 Samuel's Farewell, roan, calved April 23, 1866, by Sir Samuel, dam Pauline; — Jolly, York, 50 gs.

Lucinda, white, calved July 23, 1866, by Brigade Major (21312), dam Luna; R. Arklay, 27 gs.
 Belle, roan, calved Aug. 15, 1866, by Red Friar (24913), dam Bella; Sir W. Stirling-Maxwell, Bart., 60 gs.
 Pride, white, calved Nov. 24, 1866, by Brigade Major, dam Pearl; Sir W. Stirling-Maxwell, 80 gs.
 Bessie Bell, red, calved Feb. 22, 1867, by Lord Eagle (22149), dam Blue Bell; A. Bethune, 59 gs.
 Sonsie 2nd, roan, calved Feb. 25, 1867, by Lord Eagle, dam Lady of the Lake; — M'Queen, Diver's Well, Alloa, 33 gs.
 Alice, red and white, calved March 26, 1867, by Lord Eagle, dam Amazon; J. Young, 24 gs.
 Lucy, roan, calved June 17, 1867, by Red Friar, dam Luna; — Hay, Pigeon Bay, New Zealand, 120 gs.
 Gipsy Girl, white, calved April 15, 1868, by The Sutler (23061), dam Guerilla; H. Scott, Brotherton, Kincardine, 29 gs.
 Beauty, red and white, calved July 18, 1868, by The Sutler, dam Amazon; — Hay, 35 gs.
 Comely 5th, red, calved Aug. 4, 1868, by The Sutler, dam Comely 3rd; — Philips, Haybridge, England, 60 gs.
 Soldier's Daughter, roan, calved Aug. 25, 1868, by The Sutler, dam Beatrice; G. Hope, Fentonbarns, Haddingtonshire, 33 gs.
 Sally Gwynne, roan, calved Nov. 15, 1868, by Islesman (26444), dam Sarah Gwynne; H. C. Pole-Gell, 125 gs.
 Lizzie, white, calved Dec. 7, 1868, by Islesman, dam Lady of the Lake; T. Jolly, 36 gs.
 Miss Blithe, red and white, calved Feb. 28, 1869, by Lord Blithe (22162), dam Queen of the Isles; H. Cochrane, 100 gs.
 Maid of the Forth, white, calved March 16, 1869, by Lord Blithe, dam Maid of Lochty; H. C. Pole-Gell, 62 gs.
 Moss Rose 2nd, roan, calved April, 1869, by Lord Blithe, dam Moss Rose; H. Scott, 30 gs.
 Blithe Belle, roan, calved May 6, 1869, by Lord Blithe, dam Belle; — Hay, 105 gs.

Countess, roan, calved Nov. 9, 1869, by Islesman, dam Beatrice; A. Bethune, 35 gs.
 Lady Samuel, roan, calved May 8, 1870, by Malvolio (24519), dam Samuel's Farewell; T. Jolly, 23 gs.
 Sonsie III., roan, calved May 9, 1870, by Islesman, dam Lady of the Lake; A. Bethune, 34 gs.

BULLS.

Island Chief, white, calved July 18, 1868, by The Sutler, dam Cameron Lass; D. Forrester, Woodcock Hall, Linlithgow, 36 gs.
 Red Rover, red, calved April 11, 1869, by Malvolio, dam Samuel's Farewell; R. Mowbray, 37 gs.
 Master Blithe, red and white, calved July 14, 1869, by Lord Blithe, dam Lady of the Lake; A. Bethune, 41 gs.
 Baron Forth, roan, calved Aug. 9, 1869, by Malvolio, dam Comely; J. M'Queen, 16 gs.
 Lord Kellie, roan, calved Sept. 10, 1869, by Malvolio, dam Cameron Lass; Capt. Armstrong, 20 gs.
 Lord Mar, roan, calved Sept., 1869, by Malvolio, dam Luna; — Cheape, 31 gs.
 Lord Burleigh, roan, calved Jan. 11, 1870, by Gondolier (26277), dam Lucy; R. Binnie, 42 gs.
 Samuel Gwynne, roan, calved Feb. 7, 1870, by Malvolio, dam Sarah Gwynne; R. Meloung, 39 gs.
 Cherry Prince, roan, calved March 20, 1870, by Islesman, dam Cherry Queen; J. N. Philips, 81 gs.
 Waterman, white, calved May 9, 1870, by Islesman, dam Moss Rose; — Peat, Manor, Stirling, 15 gs.
 Watchman, white, calved Aug. 30, 1869, by Malvolio, dam Amazon; D. M'Clane, 20 gs.

SUMMARY:

	£	s.	d.
36 Cows.....	56	15	9
11 Bulls.....	36	1	8
47.....Average	£51	18	10
	£2,441	5	0

BADMINTON FARMERS' CLUB.

JUDGES:

Hunting Stock: Col. Kingscote, C.B., M.P., Kingscote-park; F. B. Jones, V.S., Cheltenham; F. Sherborn, Bedford, Middlesex.
 Cart Horses, Sheep, Pigs, and Roots: D. Holbrow, Bagpath; Francis Pinchin, Hat Farm, Box.
 Cattle: Francis Burnet, Kingscote; Levi Cornock, Shepherdine, Thornbury; Saul P. Savage, the Leys Farm, Wotton-under-Edge.
 Cheese: W. Wright, Small-street, Bristol.
 The following is the prize-list:
 HORSES.—Brood mare and foal for hunting purposes: W. White, Greyhound Inn, Tetbury. Yearling colt or filly for hunting purposes: W. Dean, Ararat-farm, Wotton-under-Edge. Two-year-old gelding or filly for hunting purposes: Capt. Blathwayt, Dyrham, Chipping Sodbury. Hunter, mare, or gelding above three years old: J. Powney, Lansdown. Roadster, mare, or gelding above three years old: Capt. Blathwayt, Dyrham, Chipping Sodbury. Brood mare and foal for agricultural purposes: C. Beaven, Shipton Moyne. Two-year-old gelding or filly for agricultural purposes: J. Millard, Lea, Malmesbury; 2nd, G. Anstee, Hinton-farm, Chipping Sodbury.
 CATTLE.—Bull above two years old, R. H. Gould, Didmarton. Bull above one year and under two years old, D. F. Long, Oldbury-on-the-Hill. Bull calf above three and under 12 months old, John Cornock. Cow above four years old, in-milk or in-calf, John Thompson, Badminton. Cow above three and under four years old, in-milk or in-calf, John Thompson. Heifer above two and under three years old, John Thompson. Heifer above one and under two years old, John Thompson. Heifer calf above three and under 12 months old, John Thompson. Cows above three years old, in-milk or in-calf, first prize John Cornock, Hillsley; second, Robert H. Gould; third, John Cornock. Pair of heifers above two and under three years old, first prize, D. F. Long, Oldbury-on-the-Hill; second, James Goulter, Acton Turville; third, D. F. Long. Pair of heifers above one and under two years old,

first prize, James Goulter; second, J. C. Hatherell, Oldbury-on-the-Hill; third, John Neems, Wick. Heifer calf above three and under 12 months old, John Cornock.
 SHEEP.—Pen of eight long-wooled wether lambs, D. F. Long, Oldbury-on-the-Hill. Pen of long-wooled Chilver lambs, D. F. Long. Short-wooled ram of any age, R. H. Gould, Didmarton. Pen of eight cross bred ewes, Joseph Bennett, Newhouse-farm; 2nd, Samuel Witchell, Sopworth. Pen of eight cross-bred Chilver lambs, Joseph Bennett.
 PIGS.—Sow above twelve months old, James Goulter, Acton Turville.
 ROOTS.—Selection of mangold-wurtzel swedes, and common turnips, twelve specimens of each sort, R. H. Gould, Didmarton. Twelve specimens of any variety of mangold wurtzel, Mrs. Mary Witchell, Stoke Gifford. Twelve specimens of any variety of swedish turnips, Wm. Minnett, Acton Turville. Twelve specimens of any variety of common turnips, J. M. Williams, Dunkirk.
 CHEESE.—Best cwt. of thick cheese, Theos. Goulter, Acton Turville. Best cwt. of thin cheese, John Cornock, Hillsley.
 MORE EXPORTATIONS.—It seems this year that most of our best cattle and sheep are leaving the country. The European left Liverpool last month for Quebec, having on board Mr. Cochrane's purchases from Mr. Booth, including the 1,500 gs. cow Lady Grateful; also the prize-cow Blue Bell, and Miss Blithe from the Alloa sale, as well as Baddow Rose, the first-prize heifer at the Essex county show. Mr. J. S. Thomson, of Whitby, Canada West, also had a yearling bull and four heifers from the Sittyton herd on the same vessel. And besides these Shorthorns there were also several prize-sheep, including Mr. Marshall and Mr. Cartwright's Lincoln tups, and three of Mr. Wiley's prize-pen of Leicester gimmers from the Yorkshire show: these were really very beautiful sheep and go out to Mr. Wallbridge. Mr. Stone, of Guelph, also sent out several Cotswold rams recently bought at the Gloucestershire sales,

FERMENTATION.

A lecture on this subject was delivered by Professor A. W. WILLIAMSON, F.R.S., at a meeting of the Society of Arts.

I have sometimes wished, when building castles in the air, that I could, after a few hundred years, come back and see the state of science at that time. I am convinced that those who will look back, from such a period as a few hundred years hence, at the present state of our knowledge of Nature, in any one department, will be surprised at its smallness; in fact, even now, when we work at all earnestly at any one part of the field of Nature, we cannot refrain from feeling how little is our knowledge compared with our ignorance. But, if that is generally the case, I think it is peculiarly the case in those studies in which life is concerned; and the phenomena of fermentation have that peculiarity that they consist of processes in which vital organisms are concerned, and in which there is every reason to believe that vital organisms, or living beings, take an active and leading part. I need not say that, for that reason, the explanations which we have, even of the simplest and best known of the phenomena of fermentation, are, as yet, mere sketches of the reality. It is, however, not the less useful or the less important to know them for that reason. When we chemists are classifying substances, we adopt a principle of classification which I think is almost inevitable, but it may be as well that I should mention what it is. We put the simple things together, and the complex or difficult things together, and then we try to put between them, in as regular an order as possible, the intermediate links of the chain by which they can be connected; and I believe that our best—I might almost say our only explanations consist in thus arranging, in a natural order, the facts which we have to consider, and then viewing them, and stating what we see, in the clearest and least ambiguous terms. Now, the term "organic," as applied to a certain class of chemical substances, might be replaced—by the term "complex." The substances which we are in the habit of including under the term organic are peculiarly complex; in fact, they are the most complex with which we have to do. The phenomena of fermentation relate mainly to them, and consist principally of a process of change—the breaking-up of those organic bodies into rather less complex substances than themselves—a process of partial analysis. Of course, when I say that, I gave what I conceive to be a characteristic idea of the general method, and I must not be supposed to assert that all processes of fermentation are analytical. Amongst the characteristics which, I think, are particularly useful and interesting, as serving to distinguish organic from inorganic, complex from simple substances, is their different behaviour under heat. I have found it exceedingly interesting and instructive to bear in mind the fact that while simple and inorganic compounds, as we generally call them, are sometimes destroyed and resolved into other compounds by the action of a high temperature, yet many of them are not. Amongst inorganic substances we find some which are broken up or changed by exposure to a high temperature, but there are others which can stand even the highest temperature without undergoing any permanent change—that is to say, they return, on cooling, to the same state in which they were before the heat was applied. With organic substances that is not the case. All organic bodies are broken up into minute particles, and assume new arrangements, when they are heated to a sufficiently high temperature; and that is, I think, a distinction which is of considerable theoretical as well as, perhaps, of some practical importance. The processes of breaking up which are effected by heat upon organic bodies are, in the very great majority of cases, different from those which are effected by the action of these wonderful little organisms, the ferments; and it is a peculiarity of the action of the ferments that they effect the breaking-up—the analysis—of complex organic substances, and form products which, for the most part, we have obtained from those materials by no other process. Amongst the processes of fermentation there is one which, from its pre-eminence importance, and from the fact we have had occasion to study it more fully than any other, ought to be first mentioned. I allude to the process of fermentation by which alcohol is formed artificially. I may say, indeed, it is the only process by which alcohol is ever made. It is a process

which consists in breaking up some kind of sugar—for sugar is a word which, although popularly restricted to one particular substance, which is extracted sometimes from the sugar-cane and sometimes from beet-root, is used by chemists in a more general sense, serving to characterise a family of bodies which have much in common with one another, being for the most part all of them sweet, and containing the same elements, but in slightly different proportions. They all possess many properties which are of some importance. These different kinds of sugar are broken up by the action of ferment into alcohol, and also into another product, carbonic acid gas, which has been long known, and for a long time the process of alcoholic fermentation was supposed to consist simply in a separation of sugar into these two products, alcohol on the one hand and carbonic acid on the other. A more careful examination of the products has shown, however, that these two never appear alone. I believe I may safely say, from the researches of Pasteur and others, that no case of the formation of alcohol by fermentation has been known to occur in which several other products have not been formed simultaneously with these two. With regard to the difference of properties of these two bodies there are one or two points of some little interest, especially this one, that whereas alcohol is an eminently combustible substance, and is well known to have properties of that kind, being frequently used as fuel; on the other hand, carbonic acid, the other chief product, is completely burnt—it is a substance incapable of undergoing any chemical change whatever analogous to combustion. Alcohol is a substance which I need not show you, although in its pure state it is not very common; but I will, in order to remind those of you who may be less familiar with its leading properties, make a little carbonic acid by a short process. I will put a little muriatic acid upon some white marble, and the apparent ebullition which you see takes place is known to you all as due to the liberation of carbonic acid. You might imagine the thing to be fermenting, only that the process in that case would be less rapid. Now, if I plunge this little burning paper gradually into the jar containing the carbonic acid, it will burn more and more faintly, and get extinguished when it enters the gas; it is totally impossible to set fire to the gas. And there is one other fact that we may notice at the same time—the great specific gravity which characterises this gas. I will show you that, in this way. I will go through the motion of pouring from this jar containing it into another smaller jar, and no doubt the heavy carbonic acid will pass from the jar in which I first collected it into the lower one, where we shall find it by means of the taper as before. You see that, on lowering the lighted taper into this small jar, it is extinguished as it was before. I will show you the test by which we usually discover the presence of carbonic acid. I have here some water containing lime in solution—some lime water—and I will pour it into the large beaker glass, in which there is probably still some carbonic acid left. You see the solution immediately becomes turbid, or, as we express it, a precipitate is formed by the combination of the carbonic acid with the lime water. A compound is formed, which is nearly insoluble in the water, called carbonate, which goes down as a precipitate. In addition to alcohol and carbonic acid, I ought to mention another kind of alcohol, which occurs to a considerable extent in some distilleries where raw grain or potato starch is used. This substance imparts to the product a very unpleasant odour, and some unwholesome qualities. It is known by the name of fousel oil. It does not mix with water, and if I were to pour some of it on water, it would float, without dissolving to any considerable extent. There are some other products which are even more interesting and important; two especially I ought to mention. One is the clear substance which you see in this bottle, and which you might imagine to be oil. It is a fluid largely made now, and known by the name of glycerine, but in chemical language I should say that this was an alcohol. It is a substance which, by tasting, you might mistake for sugar, for it possesses a sweet taste resembling sugar; but, to chemists, it is a kind of alcohol, and its appearance during fermentation together with ordinary alcohol is no doubt due to a process of the normal kind. Another product which I might compare to the car-

bonic acid which I just now showed you, is this beautiful crystalline acid substance, which has been long known by the name of succinic acid. It got that name from the fact that it was originally prepared from amber. By subjecting the amber to dry distillation, succinic acid, among other products, is formed. Glycerine and succinic acid, as well as common alcohol and carbonic acid, are always formed when any kind of sugar is made to decompose by the process which is termed alcoholic fermentation, and it is seldom that there are not other—and probably in smaller quantities several other—products formed besides those four. In fact, the different kinds of spirit which are obtained by the process of fermentation and subsequent distillation—I mean those kinds of spirits to which no artificial flavouring material is added (gin is a general name given to certain spirits which are flavoured by artificial means), such as brandy, rum, and others—owe their distinctive peculiarities to the presence of small quantities of volatile substances which are formed during the process of fermentation, regarding which a good deal has been observed, and several important facts have been collected. There is another process of fermentation which I must mention, for it is important from its frequent occurrence, and that is a process by which another kind of sugar usually, but sometimes common sugar, is transformed. The substance which most naturally undergoes this fermentation is milk-sugar. These hard lumps in this bottle, which, if you were to take out and taste, you would not imagine to be sugar, are made by the crystallization of the solid substance in whey. The whey is evaporated carefully to a small bulk, and this substance which results is known by the name of milk-sugar. When a solution of this is mixed with cheese, which is the best ferment for the purpose, it gradually turns acid. I dare say it is known to all of you that milk itself, which contains this body, and cheese, or rather casein dissolved with it, together with the fatty globules of milk, when exposed to the air, turns acid. That acidity is due to a change which takes place in the sugar. The sugar disappears gradually, and is transformed into an acid substance, of which I have a little bottle here. It is a strong acid, and here in another bottle are a few of its salts—a lime salt and a zinc salt, which is a very beautiful and characteristic compound. I shall have occasion hereafter to show you a large bottle which is now at work, in which I dissolved, not this particular kind of sugar, but the ordinary sugar. I put with it a quantity of calcic carbonate, and some old, lean cheese, with a considerable quantity of water. The mixture was kept at a temperature above blood-heat for some considerable time; and a compound of lactic acid is being formed. That is a process analogous in its general features to the fermentation which forms alcohol; but it is a change of sugar, in which no alcohol is formed. Sometimes there is a trace of alcohol, but there is not necessarily any, and no carbonic acid is formed; but instead of those products, the elements of the sugar break up into different groups, and arrange themselves in another manner. That is really the nature of the process, as far as our most careful experiments have gone; and the acid which we make in that way, which is lactic acid, or acid of milk, is really sugar, of which the elements are arranged in a different way, so as to acquire acid properties. The third process, which I must mention from its remarkable products, is one which perhaps in some respects ought rather to be compared with putrefaction, for it is a process which has many of the most important characteristics of fermentation. In order to deal with the question of fermentation generally, it is necessary to allude to some varieties of such chemical changes which are usually classed under the term putrefaction. As a general rule, I think the characteristic of processes of putrefaction is mainly the unpleasant nature of the products which are formed. It is not long since a distinguished chemist, in speaking of alcoholic fermentation, said that it is really a putrefactive process; and in its intimate nature it is, as far as we know, a process much like the truly putrefactive processes, and different from the processes of emaciation, or oxidation. This other process to which I allude consists in forming the acid substance which I have here, and which I will not open, because it is not a very pleasant body. It is a substance which is known, although I believe not very commonly, in butter. The peculiar rancid odour which butter acquires when it is kept too long, especially in warm weather, is due to a transformation of some of its materials into this particular

acid, which Chevreul, a very distinguished French chemist, separated from butter; and he named it, from that circumstance, butyric acid. If we leave some of this product of the last fermentation—some of this lactate of lime, the lime salt of lactic acid—under the same conditions in which it was formed, that is, if we leave it in the same vessel in which it had been formed from the milk of sugar, and leave cheese with it, and keep the mixture warm, the lactate will gradually decompose, and carbonic acid will be given off together with hydrogen gas, and at the same time we find that the lactic acid will be decomposed, and in place of it we get this butyric acid, and generally some valerianic acid, and a little acetic acid. Amongst the processes which really are analogous to fermentation in their nature, but which differ in one particular, I must mention one other, the process of forming vinegar, or acetic acid. This large bottle contains vinegar in a form which most of you, I dare say, have not seen. These fine white crystals are the pure substance which, mixed with water in an impure state, are generally known by the trivial name of vinegar. We call that acetic acid, or hydric acetate. The formation of this body from alcohol represents a variety of fermentation, which is of considerable importance and of frequent occurrence. Everybody who has noticed the process which takes place when animal or vegetable matter is left to itself in contact with air, especially in moist localities, must have observed that there is a gradual disappearance of the organic matter. For instance, if you leave a piece of wood in a moist place, under certain conditions of very frequent occurrence which are favourable to this process, the wood gradually gets soft, and becomes transformed into a brown substance, and if you leave it long enough—in this country, several years generally would be needed for this purpose—it gradually disappears. If you were to put a piece of that decomposing wood into a closed glass vessel, and examine the air above it, you would find that the wood was really burning. I am using the word combustion in the ordinary chemical sense—I mean by that word that the oxygen of the air which you have enclosed with the wood is being taken up by the wood, and the products of combustion, carbonic acid and water, are being formed from the substance of the wood. One great class of the processes of fermentation is of that kind. They consist not in a mere breaking up of the materials already contained in the organic substance, but a change of their arrangements, which is due, more or less, to the absorption of oxygen, and this formation of acetic acid, or vinegar, is a case of that kind. In fact, if we were to leave some ordinary fermented wort in an open vessel, so that the alcohol were left there in the mixture in which it had been formed, we should find that the alcohol would gradually disappear and give place to an acid substance. The process is well known to wine-makers and to brewers, and their art consists, among other things, in the avoidance of this process of the oxidation of their alcohol. While the acetic acid is being formed, oxygen from the air is taken up, and in that respect this process of acetic fermentation differs from the other three processes of fermentation which I have described. When you make alcohol and carbonic acid from sugar, the air takes no part in the process; when you make lactic acid from the sugar, the air is not wanted; and when you make butyric acid from lactic acid, then again the air may be completely excluded, and the process will go on without it. But when you make acetic acid from alcohol, you must of necessity allow the free and continuous access of air, and the air gives up some of its oxygen to this fermenting alcohol to transform it into acetic acid and water by a true process of fermentation. Now, the question arises whether this formation of acetic acid ought to be classed, as I am at present classing it, amongst the processes of fermentation. If it is due to the absorption of oxygen, you might naturally inquire whether one ought not to place it amongst the common processes of combustion, and it is right that I should state that by some authorities it is at present so classed. My reason, however, for stating what I have done, that it is a process of fermentation is this, that it is usually effected by the action of a peculiar organism called the vinegar-plant, an organism which I shall have occasion to show you hereafter, which does exert in that particular process the function of taking up oxygen from the air, and of inducing the alcohol to combine with it. There are many other processes by which we could get it, but the actual process by which we do get it is a process in which this vital organism, the vinegar-

plant, is the agent of its formation. It might be made by mere processes of combustion, but it is made by a process of fermentation. There is one single feature in the first and best known of these processes—the alcoholic fermentation—which you will notice when I tell you something of the way in which the processes of fermentation present themselves, even without very great care on the part of the observer. If, for instance, you were to express the juice of some sweet fruit—say grapes—and if you were to leave that expressed juice in contact with the air for a little time, having first squeezed it through some suitable cloth or filter so as to have it clear, of course there would be no solid particles in it when you put it aside; but, if you leave that in a tolerably warm place in contact with the air, you would find that little solid particles would appear in this juice, that they increase in number, and that in proportion as they increase in number, and as the quantity of them becomes greater, so does the process of effervescence—the evolution of gas from the grape juice—become more and more rapid. These little solid particles, which are not present at first in the grape juice, but which gradually make their appearance when it is exposed to the air, are what we commonly call, in the ordinary case of alcoholic fermentation in this country, yeast—either beer yeast or wine yeast—it is the same organism in each case. The peculiarity of the process is this, that these substances—this yeast—which seems to make the sugar into those products which I enumerated to you, does not disappear while doing the work, but is produced by the very process. The more active the production of these yeast cells, and the more speedy the growth of these yeast cells, the more effective and rapid is the process of fermentation, and no fermentation of the kind which I am speaking of at present—the alcoholic fermentation—has ever been known to take place in the absence of these organisms. That circumstance I just mention briefly at present, but the fact that these yeast cells appear whenever the process is going on—and the more they grow the more rapid is the fermentation—has led people to suppose at first, and to believe afterwards, that these yeast cells were the agents of the transformation, the active substances which decomposed the sugar in contact with the water, and induced the transformation which we noticed. Now, the very fact that one of the two substances which are reacting upon one another chemically (because the changes are chemical in their fundamental nature), should not disappear, but should rather increase by the process, is entirely anomalous—it is entirely at variance with the simplest and best known facts of chemistry, so much so that if it were not established upon incontrovertible evidence, I believe that most chemists would be inclined to disbelieve it, and say it cannot be, it is a mistake. If you tell me, as a chemist, that this yeast is transforming sugar by its action on the sugar, and that instead of being consumed the yeast is actually increased in quantity by doing that work, I should say it is nonsense—it cannot be, because in all the cases of chemical action which I know best, nothing of the kind occurs, but the very opposite. When one substance acts upon another, each one disappears in the process, and is transformed into a product having other properties. I need hardly give you illustrations of that; but one or two simple cases may not be useless, as serving to fix clearly this important circumstance in your minds. I will take at first one of a particularly elementary and simple kind—a process of combustion. I will take a little strip of metal—magnesium wire, and will hold it for a short time in the flame of a spirit lamp, so as to raise it to a sufficiently high temperature. The light you see emitted is due to the combustion of the oxygen in the air with the metal magnesium, which I hold in my hand. This is one of the simplest possible cases of chemical action. The metal has disappeared. The strip of wire is gone, and oxygen from the air disappeared also. At the same time a white powder was formed. I dare say you did not notice it, but here is a quantity of the same substance in a bottle. It consists of oxygen from the air combined with the metal magnesium, and the point is this, that all the magnesium which took part in that process disappeared and went to form this white powder, and all the oxygen which took part in the process also disappeared. The two united together, each disappeared as such and went to form this new product. And, moreover, we can tell, from an examination of the proportions in which the substances combine, exactly what weight of oxygen would disappear for every part by weight of magnesium. If you burn, for instance,

three grammes or three pounds of magnesium, you would require exactly two grammes or two pounds of oxygen. For instance, three pounds weight of magnesium would combine with two pounds weight of oxygen, and the product of the two together would be five pounds in weight. I may show you the same thing with soda, not the substance which is commonly called by that name, which is a carbonate of that base. I have here a little pure soda solution in a bottle. I will pour some into a beaker-glass, and I will show you one property which characterises it, viz., that of changing the colour of this red paper into blue. Now, I will pour some of this acid body, the oil of vitriol, into another beaker-glass. If I put the paper which has been discoloured into this pure acid, it would be dissolved; but I will dilute some of it with water, and then you will see that paper, which has been rendered blue by the agency I have just used, is brought back again to red by the agency of this acid. Now, if I mix the acid with the soda, we shall have audible evidence of violent action going on. I will not go on with the process, but I have purposely taken the two substances in presence of very little water, in order to show you that the heat evolved makes the liquid boil with great violence. I could have avoided that by adding water in the first place, but I wished to show you the vigour with which they unite together. If I were to go on adding acid to the soda little by little, feeling my way until I had just completed the action, I should have got some water formed, and some of the beautiful salt which I have here, a body which is neither soda nor acid; it is a salt called Glauber salt, or sodic sulphate, and all my materials would have disappeared in the process. If I use them in proper proportions, all the acid and soda would disappear, and go to form these two other products. I might dissolve some of this sulphate in water, and might put red paper or blue into it, and it would not affect either of them; it is perfectly neutral in that respect. The proportions by weight in which this combination takes place is this. If I add 40 parts by weight of soda, and 49 of oil of vitriol in a state of purity, I should have as the result 18 parts by weight of water, and 71 of sodic sulphate; and if I add together the weight of my materials and the weight of my products, I get the same—89. Nothing disappears in the process; all the acid and all the base which takes part in it is employed. Each particle which took part in the process disappeared as such, and it passed over into another form. I will mention one other case, because it is somewhat more complex. I may take the case which I was showing you just now, the white marble and hydric chloride, or muriatic acid, which I used for making the carbonic acid gas. In that case I used two materials—carbonate of lime, as it is commonly called, and hydrochloric acid. We get three products; on the one hand is a salt, which is commonly called chloride of calcium—a solid substance used for drying gases, as it has a great affinity for water; another is water; and the third, as I showed you, carbonic acid gas. There, again, we have precisely the same thing. All the marble and all the hydric chloride which takes part in the formation of those three products disappeared as such, and they resolved themselves into other compounds possessing different properties; but the weight of the products is equal to the weight of the materials. That rule holds good throughout all ordinary cases of chemical action. On the other hand, in fermentation it is not so; one of the active substances is formed, and the more active the fermentation, the more does it grow. In fact, if you want to get yeast, you must go to a place where the breaking up of sugar into alcohol and carbonic acid is going on; or if it is in the south, you must go to where wine is being made, you go to a wine-maker and get the yeast from him. The only way of getting yeast is from that process of fermentation which sets in spontaneously under the conditions I named to you. I ought, however, in justice to the wonderful process I alluded to, give you two or three other particulars regarding it. I showed that sugar is broken up by the ferment into these products, but no case is known of pure sugar—and when I say pure sugar, I mean sugar in the purest form in which we have it—being decomposed by yeast. If you were to put some ready-made yeast—thriving, growing yeast—into a solution of chemically pure sugar, some of your yeast would decompose, some of it would resolve itself into other products, and other parts of it would be absorbing those products which are present in the liquid, and whenever the process is to be carried on

advantageously and rapidly, it is customary to add some saccharine liquid—some other substance capable of nourishing the yeast. When I want good fermentation I do not take water to dissolve my sugar, and put yeast into it, but I boil some of this malt, which is one of the best materials for this purpose, in water, and take a decoction of malt, or decoction of yeast, and put the sugar into it. In such a liquid there are several bodies which we know; and I may safely say that there are a great many others which we do not know, and there is no doubt that their presence is of considerable importance to the chemical change which takes place. There are substances which I shall presently have occasion to show you and to speak of, formed by the germination of the grain, by the formation of the malt, which are related somewhat to this body which I have here. This was some pure wheat flour—every kind of flour would not do—and it is supposed that some people mix other materials with flour. It was kneaded up with water, pressed together, and, whilst the pressure was being continued water was allowed to trickle over it. I have in another bottle some of the water that trickled over it. There is a white substance deposited from this water, which is commonly known and much used by the name of starch, and starch is, in its chemical composition, first cousin to sugar; it is a substance which passes over very readily into a kind of sugar by a process I shall presently have occasion to allude to. But the little ball of flour while being kneaded had the starch washed away from it, and I have left, as the result, a substance which is generally known by the name of gluten. If I were to describe it in chemical language, I should say it is something like flesh, or the muscular fibre of animals, for, in chemical composition, it approaches very nearly to that. When barley is malted, and kept in a warm place for some time, the grains begin to germinate and decompose, and some bodies are formed from this gluten, which is partially broken up. The malt contains also some sugar made from that starch—grape sugar, as we usually call it. If we had only those extreme cases I really do not know what we should do. If we had in our science one set of bodies which appeared so constantly to act at variance with the general laws which the others obey, I think we could not call chemistry a science. I have taken two or three examples to show you the definite proportions which we find to regulate the ordinary process of combination. I might have taken thousands, but the point is that this law does not appear to apply at all to these chemical changes which we call fermentation. One of the active substances in fermentation is being formed, it is increasing, not disappearing at all, and the contradiction is so strong and manifest that the only way out of the difficulty will be to do something of the kind which I was speaking of some time ago—that is to say, see if we cannot get some intermediate facts which will serve to connect the extreme ones; to see if we cannot get at first something between the two classes, and then try to get some further links between them. There are processes of chemical change, I will not call them processes of fermentation, for I do not know whether they are, but which are analogous to it, and some of them are very interesting and very beautiful. I have here a substance called amygdalin, made from bitter almonds; it is a bitter tasting substance, and consists of four elements which it is not necessary that I should name. In this other bottle I have a paste formed of sweet almonds, which have been crushed with a pestle and mortar, and I will put some of it into the warm distilled water in this flask. Into the mixture I will put some of this amygdalin; if I were to leave it without that addition there would be very little change; the substance would gradually subside, but there would be no product given off in the way you will presently see. After letting it stand for a few minutes I will pour some of the mixture into an open vessel, and we shall be able, without difficulty, to perceive a fragrant smell, which is due to the presence of a liquid of which I have a quantity here, a substance known by the name of oil of bitter almonds. If we were to perform the same experiment on a large scale, and macerate some of this amygdalin with almond paste, put them together with warm water, distil the mixture, and collect what comes over, we should find that water would pass over, and with it would be a few drops of oil of bitter almonds, and the amygdalin would be decomposed in the process. There is in the sweet almond paste a substance which I cannot describe in better terms than by comparing it to that gluten which I showed you

just now. It is very similar to it in its composition, and by the contact of this, the synaptase, as it is called, with the amygdalin, the elements of the amygdalin are broken up into several products; one of them is the oil of bitter almonds, another is prussic acid, which generally accompanies the oil, the third is a variety of sugar of the kind which is called grape-sugar, and there is probably also some formic acid. Here we have the breaking-up of a complex body, amygdalin, into several simpler bodies by the action of the body called synaptase; but there is not in the process, so far as I know, any living organism at work. There is a substance which is somewhat similar to these living organisms, but there is no organised structure, so far as our knowledge goes at present. Take another experiment. I have here something which is not a *blanc mange*, although it looks something like it; it was made by boiling potato-starch with water. We let it cool, and then turned it out; some was put into a flask with two or three ounces of crushed malt. It was warmed to a temperature of 60 degs. centigrade for about an hour; there was no boiling. The substance was then squeezed through a cloth to keep back the husks of the malt, and here is the liquid which ran through. It is perfectly liquid, and its consistency is entirely different from that of starch, from which it was made; it is quite sweet to the taste, and there is a large quantity of sugar in it. There is also another body which we class with the sugars; that is, there is in this liquid a good deal of a kind of gum, which we call dextrine, which would easily pass into sugar. The starch, when it was being converted by the action of the malt into those soluble bodies, did not, so far as we know, break up into simpler substances; the process was of a different kind. It assimilated the water; the starch combined with the water, and at the same time divided itself, some of it forming one and some the other product. Here, also, there was not, as far as my knowledge goes, any ferment or any organised cells in the liquid. If they were present it was an accident, and was not essential to the change which took place. I am the more confident in saying that no ferment was there present, for we can get, and we very often do get, precisely the same formation of starch without any malt at all. If, instead of warming some of that starch with the infusion of malt, I had mixed it with a little—about five per cent.—of that strong sulphuric acid, and had heated it, it would have been dissolved almost like sugar in water. In fact, there are now in Germany, and also in England, manufactories in which starch is converted, by the action of dilute sulphuric acid, into grape sugar, and the same change which we get by organic substances—that is the point—we also get by the action of this mineral acid. Another change of the same kind I may mention, especially as the subject of it is in itself interesting. I have here a substance which people have been accused of making for the purpose of adulterating quinine. It is made from willow bark, and is believed to possess febrifuge properties, so that there was some little excuse for what I have mentioned. This substance is called salicine, and when heated with dilute sulphuric acid, in the same way as the starch when so heated was converted into sugar and dextrine, this salicine breaks up in a way which I might compare with that in which some bodies are broken up by fermentation. Another case of the same kind is afforded by tannin, a substance extracted from gall nuts, and which is present in oak and many other barks. It is used for combining with gelatine, which is the principal constituent in hides, to form leather. If we dissolve this tannin in water, and leave it in an open vessel, it will get mouldy; and if you examined it after some time you would find none of it left. It would all disappear, just like sugar in the process of fermentation, and in place of it you would find, in that particular process, a body which you might easily crystallise out from the liquid, and which I have here; it is called gallic acid. It is a body resembling tannin in some respects; for instance, in the property of forming, in combination with iron, a dark substance, which is used in suspension in water for writing ink. But it will not do to form leather in combination with gelatine. If you left the tannin in an open vessel, it would decompose, and there would be left gallic acid, and some other material which was formed at the same time would have disappeared. By boiling tannin with dilute acid, we get the process performed more regularly. Upon boiling some tannin with dilute sulphuric acid, you would find that water would be taken up by it, the tannin would combine with water, and it

would break up into sugar and gallic acid, the process being exactly like that which I mentioned in the case of salicine. There is a most direct analogy between the process of breaking up with sulphuric acid effects upon tannin and that of fermentation. I ought to say, when telling you of the decomposition of the tannin, that it is effected by little animal organisms present in the liquid, and it appears that they are the agents of the transformation. Then there are some other processes of considerable importance, from their occurrence in the animal economy—processes which, I believe, must be classed between those experiments which I showed you a little while ago, and the process of fermentation—I mean processes which occur in the operation of digestion. I have here a gelatinous solid, which contains a substance called pepsine, which was made by dissolving the inner lining of a pig's stomach in diluted hydrochloric acid at about blood heat. The inner lining of the stomach of that and similar animals is dissolved gradually, and that solution possesses the property of dissolving muscular fibre, white of egg, and other similar substances; it is, in fact, artificial gastric juice, and it would, for instance, dissolve that lump of gluten which I showed you just now—which looked something like indiarubber—and when this pepsine dissolves albumen by digestion, for the process is doubtless of the same kind as that which occurs in the animal economy, it does so by breaking up into bodies which are no doubt simpler than itself, bodies which we do not know accurately and fully. They are called peptones, for it is common enough to give names to bodies, even before one knows them well. I do not know whether it is a good plan, but it is customary. These bodies are a good deal similar to those which are present in malt, and in such like mixtures which have undergone vital changes. Then I will give you one or two other cases of similar processes. Here is a singularly beautiful acid, called hippuric acid, which decomposes with very great readiness if left in the liquids in which it is originally found. When that organic mixture is exposed to the air it undergoes a process of putrefaction. The general appearances which take place in the liquid while the substance is decomposing would certainly be described by anybody as a putrefactive process, and there is formed by its decomposition some of this other beautiful acid, called benzoic acid, because it was originally obtained from the fragrant gum benzoin. At the same time there are other products given off which decompose. Now we can by mineral substances effect the same decomposition of that hippuric acid. A German chemist, to whom we owe many researches in these matters, showed some years ago, that if you boiled hippuric acid with dilute sulphuric acid, it takes up water, and breaks up into benzoic acid, and this crystalline substance called blycooc, or sugar of glue. It got that name from the circumstance that it was obtained originally from glue by decomposing action, and it has a sweet taste. It has no analogy to sugar in its nature, but it has that superficial resemblance that it is rather sweet. This hippuric acid affords another case of a body which is broken up either by putrefaction or by the action of dilute sulphuric acid. It affords a strong argument, and other cases I have adduced afford, like it, an argument that the action of these organic substances resembles the action of sulphuric acid. If we get the same change in several cases by the action of an organic body as by the action of a mineral body, the fact certainly goes some way towards showing that the two substances must be, in their mode of action, generally alike. There is another case, that of urea, which in contact with water forms a carbonate. That may be done by either class of reagent. There are, however, some chemical processes even simpler than these, and for that reason they are better known to us, which really may be studied with advantage side by side with those I have mentioned, and they will, I think, afford us, on further consideration, a key to the explanation of these processes. I will only mention two. One is a process which is well known in its general features, and it is a process of breaking up truly analogous to those I have mentioned, but a perfectly simple breaking up of alcohol into two substances, both of them well known now, one being water, and the other ether. It is a process which consists in dividing the elements of alcohol in such a way as to get nothing formed but these two products, though side by side with this change there are some secondary changes which do not belong to the process. This change is effected solely by the action of oil of vitriol or sulphuric acid. It has been long known, and it was

a subject of wonder for some time that, if sulphuric acid is mixed with alcohol and heated, you can distil off some alcohol from the mixture in the form of these two products; then you may add some more alcohol, and if you distil that off, it is also broken up into ether and water; then you may add some more again, and you may go on adding alcohol to that original quantity of sulphuric acid, and it will decompose each successive portion into these two products. There is no limit known to the extent to which sulphuric acid will effect that change. You perceive, therefore, that this, in its general features, is a process analogous to those which we were considering at first. I may illustrate that by an experiment. First, I will show you how we discover the presence of sulphuric acid. The common test is, to add some salt of baryta—this which I have here is a chloride—to the sulphate, when we get at once a precipitate sulphate of baryta. The sulphuric acid, in making the ether, passes over into a compound that does not possess this property. I have some of it here. It is a clear liquid, and on mixing it with the same re-agent I used just now you see that it will not form the precipitate. I put some of the same baryc chloride into it, but, as you see, the liquid remains clear. But I can bring back my sulphuric acid to its original state. Mr. Taylor, my assistant, was heating some of it just now, and it has been standing so long that it has returned to its original state already. It has returned from the state in which it does not precipitate baryta to the state in which it does. There is in the process a successive departure of the sulphuric acid from its ordinary state, and a return to that original state; it is a kind of circle or cycle. The substance passes over into a compound which does not precipitate baryta, and then it returns again to its original form, and that is the key to the anomaly. When the sulphuric acid has effected the decomposition of one portion of alcohol into ether and water, it comes back again to sulphuric acid, becomes exactly what it was in the beginning, and is able to recommence precisely the same combination. I will give you another example of it. I have here a substance used in one of the commonest manufactures, that of oil of vitriol, in which the same operation occurs. I have there a substance at work called nitric oxide. It is converting a quantity of sulphurous into sulphuric acid. In principle it would so convert an infinite quantity, but in practice it is limited by convenience. It acts by carrying oxygen from the air to one portion of sulphurous acid and then to another, and thus it goes on, and effects successive oxidations of a great number of particles of sulphurous acid, forming sulphuric acid from them, and it does that in virtue of a process perfectly analogous to that which I just now mentioned. The gas, after one operation, returns to the same state in which it was in the beginning of the first operation; it is a cyclical process. I have here some of the nitric oxide combined with oxygen, and when in that state it has the red colour which you see in the flask. If we blow a little sulphurous acid into it, the red colour will disappear as the nitrous acid gives up the oxygen, the nitric oxide itself being a colourless compound, but in combination with oxygen it is red. As the sulphurous acid passes into it, the nitric oxide parts with the oxygen and becomes colourless, but on again blowing in a little oxygen it returns to its former red colour. This shows you that there are processes of simple, normal chemical action, somewhat analogous to those fermentive properties which I formerly described. Each one of these processes takes place in perfectly definite proportions, the peculiarity being that one material which takes part in them returns at the end of one operation to the same state in which it was at the beginning of the operation, so that the processes are cyclical, and this re-agent is able, by acting successively on a large quantity of particles, to repeat its action very frequently upon them, and beyond what would appear to be its definite combining proportion. You see this red compound of nitric oxide and oxygen has lost a great deal of its red colour. I will not wait until it is completely bleached, but will blow in a little oxygen, when we shall get a return to the original deep red colour. This is the ordinary process by which sulphuric acid is made on a large scale in lead chambers. The sulphurous acid is allowed to remain a considerable time in the chamber, and is passed on from one to another, as it is acted on by the nitric oxide, which passes through the successive stages of its action by a process which I should be glad to name cyclical, as I shall have occasion again to revert to a similar process of the same name.

AGRICULTURE IN BRITISH INDIA.

From the Fens of Lincolnshire to the rice fields of Bengal, or from the Welsh and Cotswold Hills to the Himalaya Mountains, is a wide space to range over even in imagination; but since the Anglo-Saxon race has taken "to increase and multiply," and has spread over the globe—here with a group of colonists and there by a military settlement—regions however remote possess for all of us an interest and to some adventurous spirits a fascination which cannot be found in the homesteads of England. The government of races that have risen to splendour and civilization and then fallen to decay has devolved upon the shoulders of the descendants of Clive and Warren Hastings; and how they have fulfilled their destiny can best be chronicled by the administration formed for that purpose. Where many talents are given, much is required; and in what manner these responsible duties have been fulfilled we are in a position to ascertain more accurately than hitherto. The last report upon the moral and material progress of India furnishes much excellent matter for consideration, and not a little satisfaction in the knowledge that our rulers are equal to the task of governing an Empire, over which the Queen now reigns, in place of the Company of Merchants formerly trading to the East.

From the wide range of subjects contained in this statement, a few selected facts bearing upon the agricultural prospects of that country may not be unwelcome to our readers, amongst whom there must be some who hope to find a larger field for their enterprise than is contained in the narrow limits of the British Isles. The opening of the Suez Canal, and another great event of the year, the completion of the telegraphic communication, has brought us within speaking distance; the junction, too, of the Great Indian Peninsular and the East Indian Railways, whereby the whole breadth of the Peninsula is spanned, makes the time occupied in reaching Calcutta from London no greater than it took twenty years ago to travel from one end of India to the other. A notable increase has occurred in the receipts from and in the number of letters and newspapers, which have never been so numerous since the year following upon the mutiny. The more rapid transmission of the mails under the recent postal regulations, whereby Bombay is made the point of arrival and departure, has been the cause of greater speed and efficiency, although complaints are made about the enhanced charges. The drought, however, cast a dark shadow over the land; and great as were the sufferings of the people, they were much lessened by the liberality of the authorities. From neighbouring states many of the famine-stricken poured into British territories in search of food, aggravating the burden already felt there. In the Central Provinces, although less severe, the drought was universal: those which suffered most were the north-western, and in the Punjab, the districts lying south of the Sutlej. In Madras and the Lower Provinces the causes for anxiety on this account were but slight.

It is not therefore a matter of surprise that the finances suffered, when the large sum of £10,578,160 was expended during the years 1868-69 upon public works to give employment to the destitute. Otherwise, the prospects under British rule are decidedly better than at any former period. The principal sources of revenue are derived from the land, customs, opium, and salt; the latter is the only tax which bears alike upon all, and certain

changes are in contemplation to lessen its severity upon the poorer classes and to simplify the mode of its collection. The cotton cultivation, to which great attention has been given since the failure of our supplies during the American war, has suffered to a certain extent from natural causes. The acreage under culture was somewhat less than the previous year, and the estimate of the yields followed in like manner. The figures were—for Madras 1,466,372 in 1867-68, 1,365,720 in 1868-69; for the Bombay Presidency in 1868-69 2,165,731 acres, against 2,181,173 acres in 1876-68. In the north-western Provinces there was a falling off of 1,300,000 to 800,000 acres. Experiments during the year with foreign seeds have met with uncertain success, partly owing again to the unfavourable season, and in future it is intended that all such will be made by the Government, since it would be impolitic to place doubtful descriptions in the hands of the ryot, whose bred depends upon his land. There are strong advocates for the establishment of public cotton markets at all important stations, as a means for bringing the European merchant into direct contact with the cultivator, and of freeing the latter from the bondage of the Native middle-men and brokers.

Tea cultivation, which is another important feature originated in a discovery made in Assam in the year 1830; and since that time, by the aid of the Government and the enterprise of private companies and individuals although the results have not always been financially profitable, yet, upon the whole, success has attended the operations. The returns of the planters are not entirely reliable, but the out-turn for the Assam district is stated to have been 9,491,600 lbs., or about 2,000,000 lbs. more than 1867-68. At Kangra, where the plantations are placed on the lower slopes of the snowy range of the Himalayas, at an elevation of 2,500 to 5,000 feet above the sea, there is another experiment going on in tea-planting. The Government have disposed of nearly all their gardens at their station at Kumaon, since the cultivation has taken root and fallen into the hands of a responsible body of proprietors: and here there apparently exists a good opening for enterprising persons. The teas are chiefly gathered and sold for the Central Asia market, the transit charges being too heavy to admit of a profit in the London market. Of the quantities of teas exported during the year from Calcutta there can be no doubt, since the Customs give the total at 11,434,000 lbs., against 8,789,344 lbs. in 1867-68, showing an increase of 2,644,656 lbs.

We have an interesting description of the mode of life which is passed by the inhabitants of the hills. It appears to be the custom of these people to remain in their villages until the season commences in May, and then the whole countryside moves up, every man to his patch of land on some lofty eminence. Although the clearing of a space of dense jungle is no doubt very severe labour, yet the surroundings render the work pleasurable, compared with the toilsome and dirty work of the tillers of the plain. On the one hand, the hill man labours in the shade of the jungle he is cutting; he is in a lofty spot where every breeze reaches and refreshes him; his spirits are enlivened by the beautiful prospect stretching out before him. He is surrounded by his comrades; the scent of the wild thyme and the buzzing of the forest bee are about him; the young men and maidens sing to their

work, and the laugh and joke go round as they sit at their midday meal beneath the shade of some great mossy forest tree. The management of these extensive forests, which spread over different portions of India, has occupied the attention of the Government, and a staff of experienced officials is being prepared for that especial purpose. By the system at present adopted, a certain number of young men intended for this branch of service are annually selected and sent for a two-years' course of training in the forest schools of France and Germany. In the north-west Provinces we find the education of children has not been neglected. The number of schools of all kinds was 5,462, the pupils 197,812, and this out of a population of about 30 millions. Notwithstanding the famine, the attendance advanced, and the best results are expected from these village schools in spreading a sound education among the agricultural classes.

In the central Provinces the great bulk of the population live by agricultural pursuits, and the custom still prevails throughout the country of making the village proprietor the keystone of the system of social economy. On him the greater number, if not the whole, of his tenants depend for their seed grain, and for the means of subsistence until harvest time, while the artisans and village servants depend in their turn on the cultivators, so that unless the proprietors have stores or credit, the whole community suffers. The total area of this province is 50,865,135 acres, of which 21,032,695 acres are barren and 29,832,440 are cultivatable. About one-half of the latter is under the plough. Food grain it appears occupy 79 per cent. of the land, cotton 5, oilseed 7, and other seeds the remaining 9 per cent. The average rice crop is about 57 lbs. per acre. Much cannot be said for the success of the experimental sheep and cattle breeding.

The Punjab and the feudatory States in political relation occupy a space or 200,000 square miles, so that we have an area of nearly half as large again as France, and still unappropriated waste land at the disposal of the Government, amounting to about 13,000 square miles. The forest tracts are chiefly in the interior of the Himalayas, but it is only in localities overlooking rivers, into which the logs when cut are thrown, to be carried by the stream to the plains, that they can be turned to practical account. The agricultural are to the non-agricultural classes as nine to eight. Owing to the scanty rainfall there was a decrease of 475,920 acres in spring cultivation, and of 1,619,041 in autumn crop. From the same causes there was a great loss of cattle during the year, amounting to 450,000. There are about 150,000 camels in this province. The rhea or China grass, a plant which has been introduced from Assam, thrives luxuriantly. It

possesses a valuable fibre, for which there is an unlimited demand, but owing to the want of suitable machinery for detaching the fibre from the stem, the development of this important trade is delayed. A reward of £5,000 has been offered by the Secretary of State to the inventor whose ingenuity most completely supplies the want. It was in this region of the feudatory states that the famine raged most severely; the scarcity of grain, great as it was, was trifling, compared with that of forage. It is believed that three-fourths of the cattle have died, or have been sold out of the country in consequence.

In British Burmah the principal crop is rice, of which there were 1,667,262 acres, or about 15,000 acres less than in 1867-68. Notwithstanding the murrain, the number of cows and bullocks increased from 388,190 to 419,887, the prices of skilled labour vary from 4s. to 1s. 4d. a-day, unskilled from 1s. to 1s. 6d. Mysore, which has an area about equal to the European kingdom of Bavaria, has an extent of land under culture estimated at 3,353,799 acres, of which 2,198,476 are taken up by *ragi* and other food grains, 836,632 by rice, and 108,741 by coffee. The mulberry is cultivated on 1,700 acres; but the manufacture of silk, which is said to have been introduced by Tipoo Sultan, has been seriously affected by the disease of the worm. Two exhibitions were held during the year, with the object of introducing improved methods of flower and fruit culture, and the accounts received of their success are most encouraging.

We cannot altogether omit to mention the trigonometrical and topographical surveys. These were conducted by seven parties, and nearly all the ground traversed possessed hitherto no reliable maps, the tracts, in some cases, having been rarely visited by Europeans. Summing up the work accomplished by the latter department, it appears that during the last quarter of a century the enormous extent of nearly 600,000 square miles has been surveyed, an area about five times larger than the British islands; and what may be well imagined, the journals of the officers engaged contain much valuable information on the geography, ethnology, &c. of the localities surveyed by them. Supplies of coal for the railways, and fresh water for certain stations have been among the fruitful results of their explorations. The chief operations of the botanical department consisted in the propagation of the chincona plant, there being now 2,596,176 plants belonging to the Government on the Neigherry hills; besides 178,605, which have been distributed to private individuals. This and much other information that we have not space to reproduce, make one of the most interesting and creditable volumes that has issued from the official printing press, and were it not for the fatal blue cover, it might find a place in our circulating libraries.

DOCTORS DIFFER.

Although the country is getting habituated to the cry of *Wolf!* which is so continually being raised, there is no doubt a good deal of what may be termed second-rate disease about. Previous to the visitation of the Rinderpest very little would have been heard of such a complaint as the Foot-and-Mouth; but since then we have become more keenly alive to the disorders of stock, and there are now very few "cases" but that are taken up. In fact, from the appearance of the Cattle Plague the veterinary profession may be said to have been gradually educating itself in this way, as to have discovered how there might be even something more to study than the anatomy of the horse or the distempers of the dog. It would look, however, from what is just at present transpiring, that

this branch of the business is not as yet in a very satisfactory condition, even if the leading principles of the art are as clearly laid down as they might be. Thus, in the September number of *The Veterinarian* a contributor speaks to "the many instances of defective observation: Many cases of a catarrhal nature were condemned on farms during the prevalence of the Cattle Plague as the disease itself." Then, again, as to "the so-called 'dropping after calving', loin-fallen, milk fever and the drop, in cattle-breeding districts practitioners frequently attend these cases. In one locality we have heard of a most unprecedented series of cures being made, and forthwith lost no time in making close inquiries. The practitioner, in a certain instance

no way elary of his information, allowed us to visit some cases, and afforded all particulars required, but we discovered his nosology included parturient apoplexy, metrorrhœmia, and the ordinary nervous debility, or loun-fallen as one affection. Some died he admitted, but many recovered. "When the brain keeps all right," he said, "the cow soon gets well." Further still, and it may be very useful to extend these examples, as offered, be it remembered, on the authority of a member of the profession:—"On the subject of contagious maladies our opinions are not at all in unison. The writer was called a short time ago by a large agriculturist to pronounce upon the nature of disease among a valuable herd of cattle. The owner had been informed he had to deal with epizootic pleuro-pneumonia and was much alarmed. Four affected animals were put under treatment, and recovered without the disease spreading any farther, or the use of disinfectants of any kind. In an action for damages sustained by a farmer, it was said, by the conveyance of contagion from an adjoining farm, a witness gave the particulars of cases of sporadic pleuro-pneumonia, conscientiously believing he had treated the contagious form; and three others stated in the witness-box that in their belief contagion could remain dormant for three months and even longer, and preserve all its fatal properties, but when asked by counsel could give no proof in evidence."

All this shows a rather loose state of things, emphatically pointed as these differences are in another direction. On the subject of contagious diseases opinions are not at all in unison, either in or out of the profession. Thus, in the special appendix to the *Journal of the Bath and West of England Society*, the veterinary inspector writing on the sanitary condition of the stock at Taunton says "every precaution was taken to prevent the entrance of infected animals into the yard; but no provision could be made to exclude persons coming from infected stocks, and to this indirect cause of inspection perhaps even more outbreaks are due, than to the actual and direct contact of healthy with diseased animals." Whereupon Sir J. Clarke Jervoise straightway writes to the Council, as will be seen from a report in another part of this day's paper, to say: "This is so contrary to my own experience, that I am most desirous of bringing the question to demonstration; and, with this object, I shall be glad to place for the space of one twelvemonth (from September the 1st, 1870) twelve out of thirteen Irish steers, purchased in June last, to be infected by Professor Brown, or any member of the Veterinary College he may select, in the way and in the manner referred to by Professor Brown, otherwise than by actual and direct contact. The visits to be paid at intervals, not more frequent than 1½ days. In case of his success I shall be ready to pay the sum of one hundred pounds."

Nothing could possibly sound fairer than this, as nothing would promise to be attended with more useful results than the thorough test of such a theory as is here propagated. According to the showing of its own members and its own *Journal*, nothing can be more lamentable than the uncertainty or more determined ignorance existing amongst veterinarians as to the diseases of cattle. And yet, strange as it may sound, the Council of an Agricultural Society "feels itself unable to undertake the duty suggested," although it would be well to know why it shirks so appropriate an office—particularly if it have any confidence in the dicta of its own Professor. Failing such support it is only to be hoped that Mr. Brown himself will be ready to back his own opinions, even if the profession be not already committed to these views. In a leader, and consequently coming with all the greater weight, in the new number of *The Veterinarian* it is declared that "some of the affections are not in the ordinary sense of the word contagious; a healthy animal might be

placed in contact with a diseased one without danger, and a diseased beast might be placed in the midst of a healthy herd in a healthy locality without any risk being incurred of spreading the disease; but on the other hand, animals from a healthy district cannot with impunity be brought into the neighbourhood of the diseased and be placed under the influence of the conditions which favour the development of the malady." This reads very much in unison with the opinion advanced in the *West of England Journal* against the spread of infection from "the actual and direct contact of healthy with diseased animals;" and with this, notwithstanding anything the experience of Sir J. Clarke Jervoise may tell to the contrary, the veterinary profession is identified, for *The Veterinarian* is "edited by Professor Simonds, assisted by Professors Brown, Tuson, and Varnell." Of course we all know the increased liability of strangers to take disease, but can it be safely propounded that animals will catch infection sooner from herdsmen than they will from other beasts? Professor Brown answers that they will, and Sir J. Clarke Jervoise that they will do nothing of the kind; while surely the question is worth bringing to an issue! Again, *The Veterinarian* maintains that "a diseased beast may be placed in a healthy herd in a healthy locality without any risk being incurred!" If this be correct, what can be the use of our preventions and cordons, and so forth? You may take the animal to the disease, but you cannot take the disease to the animal! The passage is not quite so clearly put as it might be; as, indeed, these learned essays rarely read very plainly, but let us have the names of these stay-at-home disorders by all manner of means, and let us hear further that some body is prepared to accept the challenge of Sir J. Clarke Jervoise. Such an experiment might save a deal of idle talk hereafter.

INOCULATION FOR PLEURO-PNEUMONIA.—Mr. Bruce points to Belgium and Holland in support of inoculation. The latest reference which has come under our observation as regards Belgium, appeared in the pamphlet lately issued by Mr. Howard, M.P., on "European Farming and Peasantry." Mr. Howard states that when inoculation was performed during summer in Belgium, the tails of the animals operated upon drooped off, and when inoculation was performed in cool weather, such a result seldom occurred. We could give numerous extracts from Mr. Bruce's report for New South Wales of the opinions of owners of stock condemnatory of inoculation, for it is the recorded opinion of not a few of these owners that it was neither a cure nor a preventive, and that in some herds the number of deaths from inoculation was apparently greater than the number who died from pleuro-pneumonia. But as the belief in the efficacy of inoculation has recently extended in the United Kingdom, and has been lately practised in Ireland, we submit, for the consideration of the believers in inoculation, the following facts: 1st, There is no instance of inoculation with the virus obtained from a diseased animal proving a cure or preventive for the same malady as is the case by vaccinating the human subject with the virus of the cow-pox. The disease known as small-pox in man is prevented, but cow-pox and small-pox are distinct diseases, although they are somewhat analogous. What would be thought of the mental state of the veterinarian who would advocate inoculation with the virus of foot-and-mouth disease as a preventive of that irruptive fever, or the inoculation of healthy cattle with the virus obtained from the lungs of an animal affected with the cattle plague! The truth appears to us to be that inoculation of healthy animals by the virus obtained from the lungs of an animal affected with pleuro-pneumonia, can only act in the same manner as a seton does by producing a counter irritation in the system for the time being. Those who practice inoculation by inserting a tape in the tale of an animal which has been steeped in liquid obtained from the lungs of a diseased animal, which has either died of the disease or been slaughtered, when known to have been affected, are guilty of an act of cruelty which should render them liable to be prosecuted under Mr. Martin's Act.—*North British Agriculturist*.

THE LABOUR MARKET IN AUSTRALIA.

On the debate on the vote for immigration purposes, which took place in the Legislative Assembly, Melbourne,

The Attorney-General, Mr. MICHIE, said, notwithstanding the lateness of the hour, he would fulfil his promise of giving the House facts, to which, if the hon. and learned member for Brighton could, he should adapt his theories. There was no lack of these facts. He remembered, for instance, twenty-two or twenty-three years ago, when the wages of skilled labour were from 4s. to 5s. per day. What were they now? At the period of his retrospect the inhabitants of this colony were under 200,000; and what was the number now? According to the hon. and learned member's argument, each subsequent influx of population should have cut down the wages of labour; but had it done so? No, it had not; and what then became of the hon. and learned member's theory? What were the very newest lights of the hon. and learned member in comparison with all this? What had the new blood been doing, if such arguments were held? It seemed that directly the hon. and learned member came in contact with the Chamber of Commerce and the merchants he lost his head. If state aid to immigration brought about these results, what was the force of an argument which contended that it should not bring about those results? According to the hon. and learned member, the wages of carpenters, now from 9s. to 10s. per day, should be reduced to 4s. or 5s. per day.

Mr. LONGMORE: Go back fourteen years only.

Mr. MICHIE might go back fourteen months, and what would be the difference? And as for the hon. member for Ripon and Hampden, why should he speak, when the regulations proposed were a mere bagatelle, in the way of introducing labour, to those which he when in office agreed to. If these regulations were indefensible, what was to be said for those of the government of which the hon. member was a member, and which would have facilitated the introduction of a vastly larger population? The hon. member might say that he was not aware of those regulations; but could that excuse hold on a subject of this vast importance? If the hon. member objected to new blood now, why did he not before? But, whether he was new, old, or middle blood, it was perfectly clear that the legitimate operation of these regulations would have been to pour a flood of population into this colony, to which the stream to be expected under the present regulations would have been a mere rivulet. But, coming to higher and fairer game, he reminded the hon. and learned member for Brighton that, whatever theory he might profess to entertain, he must adjust his theory so as to make it consistent with facts. How did he (Mr. Higinbotham) account for the facts that he had witnessed in actual operation in this colony? In the curious operations of society, where at once all the members of the body politic, skilled and unskilled, worked not merely competitively but harmoniously together, harmoniously for the general prosperity or the particular prosperity, in the limited view which the hon. gentleman had taken of the subject, each of them was indispensable to the interests of all, and all to each; and as the various interests worked together, and as all were necessary customers to everybody else at the same time that they were supplying the wants of everybody else, so all prospered and advanced in their prosperity together. The rates of wages steadily rose as they increased the population—"No, no," from Mr. VALE—excluding occasional and periodical fluctuations, to which every civilized community was subject. Would it be pretended that the normal operation of the principle was affected by the circumstance that there happened to be at the present moment a comparatively peculiar depression at Ballarat? A great portion of the capital legitimately employed at Ballarat has been transferred to Pleasant Creek and other places. A member of his own profession had within the last twelve months paid away £1,000 in calls without receiving a shilling in the way of dividends. His experience was the experience of scores of others; and the consequence was that a great deal of capital legitimately acquired at Ballarat during the twelve months had been dissipated in various

transactions, and the consequence of so much capital being recklessly and unprofitably passed away was that there was less demand for labour. But nobody who had read the elements of political economy would be surprised at that. Periodical fluctuations in wages in old and new communities were comparatively trifling, and did not interrupt material progress in long views of things, or the normal and necessary operation of the relation of capital and labour. For that reason he was prepared to recognise these regulations; and he defended them on the ground that they were precise enough, and at the same time elastic enough, to admit every form of labour, skilled and unskilled. He utterly repelled the insinuation that the hon. and learned member was unhandsome enough to make, that the policy of the Government was to introduce nothing but unskilled labour.

Mr. HIGINBOTHAM said that the objection he had made lay at the very root of the system of State aid to immigration, which had existed from the commencement of responsible government down to the present time. He blamed the Government for not stating why they maintained a policy which encouraged the immigration of all classes except one.

Mr. MICHIE: The hon. and learned member said that the Government dare not bring out skilled labour. He (Mr. Michie) said they dared and would bring it out, and the regulations were large enough to do it.

Mr. LONGMORE interjected a remark to the effect that the hon. and learned member was expressing views which would obtain for him his dismissal from Ballarat.

Mr. MICHIE said his dismissal from Ballarat would not break his heart. Rather than make a speech as the hon. member had at the Belvidere, denouncing immigration at one time, and at another time be prepared to father such a system of immigration as the hon. member had fathered, he would prefer to be hunted out of every political arena in the colony. What did state aid to immigration mean? (Mr. HIGINBOTHAM: £68,000.) Whence derived? (Mr. E. COPE: Out of the pockets of the working men.) He maintained that it came from the proceeds of the Crown lands; and if the hon. member interrupting him said that the land was the people's, he replied that the people who were here, ten, twenty, and thirty years ago—before the hon. member came out—said the same thing. The cries raised now were the same as those raised a quarter of a century ago. If the people of that day had said, "Oh, the country belongs to us." (Mr. E. COPE: "It did not.") That was exactly what he wanted to bring about. If the country did not belong to them, it did not belong to us who were here now. He denied that state aid to immigration was state aid in the sense in which we ordinarily used that expression—as, for instance, state aid to religion. When the hon. member talked about the unwholesome and objectionable spirit of pandering to the commercial desire to import persons into the colony to have more people to trade with, and connected that desire with the expression "state aid," he (Mr. Michie) requested him to give fair play to this unmistakable fact. The sea so far separated us from the large centres of population as to constitute a sort of wall of China around us. In his more candid and dispassionate moments the hon. and learned member would allow the force of the argument that if physically and effectually separated from more numerous populated communities, we should, as a necessary and inevitable result, unless artificial plans were employed, be altogether prevented from adding to our population from without; we should remain utterly insulated, as absolutely enclosed by the seas as the great wall of China might enclose a city. How under these circumstances was there to be an addition to our population from without by the natural operation of competition? When the hon. and learned member gravely said, "Oh, why do this injustice to the working classes? wait for the legitimate operation of the demand and supply of labour," he took up a position which was practically almost as absurd as was the reply made by Lord Ellenborough to John Horne Tooke, when he said: "The laws of England are open alike to the rich and to the

poor." "Yes," said Horne Tooke, "and so is the London Tavern." Lord Ellenborough was right, but John Horne Tooke was more right. Of course there was not a pauper in London who could not, if he had the money in his pocket, have partaken of a handsome champagne dinner in the London Tavern, but without that its doors would be as much closed against him as if he were in Kamtschatka. Such would be the effect of the hon. and learned member's scheme, if carried out. Without assistance of some kind the colony would be virtually closed against the working classes of the mother country, and even against the poor scholars and gentlemen whom we would also be glad to see arrive, if by honourable exertion of any kind they could contribute to the advantages enjoyed by the community at large. It was farcical to talk of the law of demand and supply being practicable under such circumstances. There might be an extraordinary demand, but if there were no means in existence to meet it, it might continue to be intense, while the supply would be ridiculously below it. Some people talked of inducing capitalists to come out here, but if the scheme proposed by the hon. and learned member were adopted, he (Mr. Michie) would advise people with money at home not to come out if they expected to do any good to themselves. He would say let no man who wants the legitimate profits that capital expects come out to this country, because there is a general confederacy against capital and the legitimate effect of it, championed by the hon. and learned member for Brighton, by which capitalists will only be east under the feet of labour. ("No! no!") That was the inevitable operation of the principle he advocated. No one could say that at the present moment the working classes were under the feet of capital. Let them take up a file of the *Argus* a short time before the mail left and read the rate of wages there, and they would find—

Mr. LONGMORE: A fiction invented for political purposes.

Mr. MICHIE: The hon. member might designate it a fiction, but he (Mr. Michie) had personally found it a fact, as no doubt had a great many others who had occasion to build or add to their houses of late. So far from those returns being fictitious, it would on inquiry, he thought, be found correct that there was quite lately a strike among some operatives at St. Kilda because their wages were not raised either to 9s. or 10s. a day. If the Government scheme were refused, and that of the hon. and learned member for Brighton adopted, the result would be that before long both skilled and unskilled labour would be crying out for the very regulations which were now opposed, in order that their legitimate operation might bring out capitalists, for of course unless there were capital to employ labour the labourer must suffer. The one required to be in proportion to the other. So long as under the regulations

capital and labour were not brought out in disproportion to each other the results would be beneficial, and the more intelligent of the working classes knew and acknowledged it, and were as prepared to defend the regulations submitted as any member of the Government. The regulations were elastic and were efficacious for the introduction of skilled as well as unskilled labour. In fact, the most wholesome, the most beneficial, the most secure, and the most virtuous form of immigration that could possibly be devised was family-assisted immigration, and it got reasonably and philosophically over the difficulties which separated us from the large centres of population. If they could secure such a class of immigration by devoting a portion of the proceeds of the sale of their Crown lands, for he denied that the resources for such a purpose necessarily came from taxation, they would be quite justified in doing so. The Crown lands belonged to the empire. Before they were surrendered to this country they were Crown lands of the empire, and not the property of this colony, nor of any community on this side the world, and he asked would it be either rational or just, after having received those lands, to say in effect, "We close this territory henceforth against you all"? for without the assistance provided by the regulations, scarcely any labourer would come to the country. [AN HON. MEMBER: Nonsense.] The hon. and learned member for Brighton did not say it was nonsense. He knew that by reason of the proximity of the United States and the Canadian dominion, the large stream of population must flow to those countries unless this colony offered advantages such as it was proposed to offer. The proposal of the hon. and learned member amounted virtually to a proposition to impose a property qualification upon immigrants. Those who were rich enough might come, but others stop must away. While tens of thousands went to the United States, immigration here was almost stopped. Was that to be perpetual? Without the addition of population, new blood, or whatever it might be called, they could not make progress. That was indispensable if ever they expected to grow into a great country, worthy of being called a nation, and able to keep up its armaments, and hold its own against any community in the world. Without population it was ridiculous for the hon. and learned member to throw himself into a warlike attitude, and abuse Rogers or any other obnoxious character on the other side of the world, with a population contemptible as compared with the power with which he was contending. All other things being equal, population was a large and most material element of power and respect in any nation, and it was because he desired by every legitimate means to advance the respect, power, influence, and prosperity of this country, that he certainly felt the necessity of supporting, regardless of what might be the personal consequences to himself, the regulations that had been submitted that night.

WHEAT GROWING IN AMERICA.

There are few practices in American farming in which there is more loss than in the careless, imperfect manner of putting in wheat. It is very probable that more than half of the land sown in the United States produces crops that range from 10 bushels per acre down to nothing, where only good management and good culture were needed to average from 20 to 30 bushels per acre. In growing winter wheat some of the main causes of and reasons for these small yields are sowing on badly-prepared land, either after spring crops or on an old grass sod, and on land too much run to produce good crops of wheat—land that in some cases is too much exhausted to grow good wheat with good cultivation, but that more generally fails to grow paying crops for want of good cultivation and good management. I believe that few of our good wheat lands are so badly run that a suitable rotation of crops, frequent seeding to clover, and a well-worked summer fallow, will not produce heavy crops of wheat; while as a general rule good land that has had this kind of management for some years will grow very fair wheat after well-managed spring crops. That so much land fails to grow paying crops of wheat when sown after spring crops, where but little attention is given to the rotation, and the wheat is sown late on badly-prepared land, is not surprising. It is true, rich new lands have grown good

wheat in this way, but it would not be expected to see them continue to do so after they have been a long time in cultivation. But in sections where wheat appears to be gradually failing under bad cultivation, good farming and fine cultivation may still grow good crops. A large part of wheat farming is on soils of this character and condition, and a large share of the failures and light crops are owing to sowing such lands after spring crops, where the land is not well managed, suitably prepared, or properly manured. A far too common practice is to break up an old sod, plant to corn, potatoes, and beans two or three years; sow to oats, barley, or some other spring crop a year or two more; and, after the land is thus pretty well run out with spring crops, sow to wheat and seed down. Now this is a very bad system, or rather way of farming, for there is no system about it. To thus reduce the soil with spring crops, and then expect to grow good wheat with the scant preparation usually given in such cases, is taxing the soil severely. In the first place an old, and in a sense exhausted, June grass and timothy sod, with most likely a good sprinkling of wire grass, is not a good, genial condition of the land to start with; it is far inferior to a good, clean clover sod. This old sod, with the scant cultivation, and very little, often no hoeing given to crops now-a-days, will seldom be well sub-

duced; but the wire grass (*Poa compressa*) roots, like those of the Canada thistle and quack grass, will grow as well one end up as the other, and other weeds will largely work in. So the spring crops are none too clean at first, and gradually get worse as the land is kept under the same general management, until the last crops are quite foul and poor. A good summer fallow is needed to subdue such land, as it will be much more difficult than when the sod was first broken up; and no one should expect to grow good wheat by the usual practice of merely turning under the stubble, smoothing down with the harrow, and sowing and harrowing in. This course is still worse from being usually done rather late. Such farmers are not generally any too well along with their work; while it is a very common practice to sow the summer fallows, or rather well prepared fields first, and leave until the last such fields are at least prepared to grow wheat with such treatment. Another bad practice is to plough up old sod, harrow down the furrow, and sow wheat immediately. Timothy and June grass being also cereals of a similar nature to wheat, exhaust the soil in much the same manner; thus leaving it in a rather bad condition for wheat. Besides the wheat plant is a delicate feeder that, unlike corn and peas which do well on a fresh sod, must have the manure, sod, or other plant food well rotted and prepared to be fairly available; while an old, dry sod, ploughed under in dry weather, is a long time in rotting. So an old sod, freshly ploughed under, makes a bad preparation for wheat. A good clover sod is a good deal better, as that, instead of exhausting the soil, furnishes additional supplies of the very elements most needed by wheat. A clean clover sod also rots much sooner than the old grass sod above described, and much sooner brings the soil into condition to give the wheat a good start. But even with clover it is much better to break up three or four weeks before seeding, as it is better to have any sod pretty well rotted when the wheat is sown. It is true that very good wheat is in many cases grown after spring crops. On rich, clean land a clover sod may be planted to corn, the next spring sown to barley or peas, and be put into wheat the same fall. If a good clover stubble is turned under, and a light dressing of manure is given before sowing

the wheat, good crops should be grown in this course. But a better way is to grow a crop of clover between the barley and wheat. Clover takes well with barley, and can thus be grown between two exhausting grain crops to the very best advantage. But there is a good deal of barley and other stubble that is not seeded, and that if the land is clean and well prepared, has a light dressing of manure, and is sown in good season, will grow good wheat, and good clover if seeded with the wheat. Of course it will be best to sow such land to wheat this fall. But where the most of these important requisites of good farming are wanting, where the land is not well subdued, reasonably sure of a good crop of wheat, and of good crop of clover if seeded with the wheat, it will in most cases be best to leave it and make a thorough summer fallow the next season. For where land is to grow wheat and two or three crops of grass from one preparation, it pays to do it well, as a small deficiency three or four times repeated in as many crops will much more than offset the cost of the extra cultivation needed. In preparing land for wheat it should be made fine and mellow, not light and huffy, but rather well worked down together. It cannot be too well and too finely cultivated and comminuted, but may be too loose and open. The latter is sometimes the case with stubbles that have been very dry and have then gone through a softening process that farmers call "slaking," leaving the soil very light and open when ploughed. When a heavy stubble is ploughed under on land in this condition, it makes it still worse, so that unless there is considerable rain it is quite difficult to work the soil down and make a good seed-bed for wheat. Cross-ploughing a fallow where the sod is not thoroughly rotted will sometimes make the land quite loose; in such cases it is often best to omit the ploughing, and make a good seed-bed with the harrow and cultivator or gang-plough. Where stubble or other land is too loose it should be well worked down with the harrow and roller. The plough, gang-plough, and cultivator all have a tendency to make the land more loose; but a good harrow and roller make it fine and mellow, and work it well together. Land in the latter condition is much less likely to heave with frost than when it is light and huffy.—*American Co. Gentleman.*

THE AGRICULTURAL RETURNS OF AUSTRALIA FOR THE YEAR 1869-70.

The usual tables of statistics for the year ending the 31st of March last were published in the *Government Gazette* of the 20th of May. The returns for shires and road districts, which embrace the whole area of cultivation, were furnished by the local councils, and special agents collected all other statistics. Nearly the whole compilations have been performed by the staff of the Registrar-General, and it is believed that superior accuracy has been attained.

The returns are considered to be highly satisfactory. The meaning of this is, that as compared with recent years there is satisfactory progress, and that the crop is a good one.

At we do not wish to take advantage of bad seasons in order to make comparisons favourable to our argument, we propose to show, by a comparison of the whole succession of seasons, how far this colony has benefited by the liberal land policy adopted in 1862.

From Mr. Archer's tables we have compiled a table showing the two principal crops, wheat and oats, and the total cultivation compared with population in the illiberal or anti-settlement period—that is previous to 1862—and the figures for an equal period after 1862. From this table some very curious facts appear.

The increase per cent. in the respective periods were as follows:

	1st period— 1854 to 1862.	2nd period— 1862 to 1870.
	Inc. per cent.	Inc. per cent.
Total acres occupied ...	277	225
Acres cultivated ...	1,166	89
Acres wheat ...	2,507	46
Acres oats ...	3,671	59
Population ...	77	29

To these we may add the respective per-centages of progress in the produce of wheat. In the first period the increase was from 154,202 bushels to 3,607,727 bushels, or 2240 per cent. In the second period the increase was from 3,607,727 bushels to 5,697,036, or 57 per cent.

The simple explanation of the above astounding results is—that so long as there was a remunerative local market for the produce, settlement and production proceeded at a railway pace, in spite of alleged illiberal land laws; but the moment the production reached a surplus, for which no market was available, progress was arrested, and must have been arrested, at whatever price the lands were sold. Thus liberal legislation was necessarily from the first abortive. The cultivation of wheat declined for years after the Duffy Act was passed, and the cultivation of oats has been at a standstill for seven years.

The theory was that by cheap land not only would cultivation be promoted, but emigration would be stimulated, and population be immensely increased. The comparison proves this theory to be false and delusive. We have all along asserted that for cultivation the first necessity of progress was a permanently remunerative market for the produce, and that the only attractions for immigration were—first, cheap passage-money; and, second, an assurance of higher rates of wages. Cheap land by itself to the masses was never an attraction.

As regards cultivation, the tables are exceedingly instructive. For ten years past the liberal politicians have been literally hounding on our population to seize upon the lands. Pastoral occupations were a sign and a type of barbarism, and the pastoral occupiers must be driven across the Murray. Have the population responded? Have the happy homes been established, and the farm substituted for station? It is true

that since 1862 between four and five millions of acres of the best agricultural lands have been taken from the pastoral tenants, and all but given away to persons professing to be agriculturists; but of these lands what proportion has been cultivated may be estimated when we find that in 1862 the amount of cultivation was four acres to five persons, while now it is no more than eight acres to seven persons; the proportion in each case remaining about one acre to each inhabitant.

The *Leader* has of late in a most emphatic manner denounced the proposal of cultivation in this colony for the production of a surplus for export as a delusion and a snare. In one of its publications it shows in the clearest manner that the two competitors for possession of the world's markets for cereals are

America and Russia. The *Leader* points out that even America will not be able to compete with Russia; and that Australia can compete with neither. With an emphasis which reminds us of the fox when he could not get the grapes, the *Leader* consoles its readers with the aphorism that a country which grows wheat for export is always poor. But we imagine that the *Leader* has learned this rather late in the day, after all the mischief has been done, and that the business of the *Leader* is not to pronounce aphorisms, but to point out to its readers what other crop they can grow, and where they can find a remunerative market for any sort of surplus produce. The unfortunate dupes cannot feed their families or recover their lost capital with an aphorism.—*Melbourne Economist*.

MANCHESTER AND LIVERPOOL AGRICULTURAL SOCIETY.

MEETING AT WIGAN.

Considering how, to a great extent, if not almost exclusively, the town and the immediate neighbourhood is devoted to manufacturing and mining pursuits, it might have been thought that an agricultural show would possess but few attractions for such a place as Wigan; but the very opposite has been the result, and there are few towns in Lancashire which could give the Society a more hearty welcome or more liberal support than has been accorded by the inhabitants of this town and district in connection with the present show.

The show of implements and machinery in motion took place on the Monday. Wednesday was the most important day, but both days were marred by the unfavourable weather. The arrangements on the show-ground during both days were very satisfactory, and considerable credit is due to the new secretary, Mr. Rigby, for the manner in which he discharged his duties. The show of cattle was altogether one of the finest that has ever been brought together in connection with the Society. The show of shorthorns was numerous, and the class included some capital specimens of the breed of cattle, but the quality on the whole was unequal. The show of horses, like that of cattle, was very good, and several local exhibitors were highly successful. There were 173 entries, the number included in the classes limited to members resident in the Society's district—the whole of south Lancashire and Cheshire, within a radius of 35 miles from Warrington market-gate—being 47. The brood mares for breeding horses for draught purposes constituted an exhibition seldom met with. There were 16 classes in the competition for sheep. Any deficiencies, so far as regarded stock from the neighbourhood of Wigan, or Lancashire generally, were more than made up by breeders from a distance. This was particularly observable in the Leicester class. The principal prizes offered for pigs were nearly all, with the exception of those for the black or Berkshire breed, given to Mr. Peter Eden, of Salford.

The following were the Judges:

CATTLE.—G. Drury, Holker Grange, Newton-in-Cartmel; B. Baxter, Elsoek Hall, Skipton; W. H. Hawdon, Walkerfield, Staindrop.

HORSES (Light).—G. Clay, Wem, Shropshire; Wm. Foster, jun., Burradon, Morpeth, Northumberland. Draught horses: J. Bromley, Lancaster; T. Gibbons, Barnfoot, near Carlisle.

SHEEP.—R. H. Masfen, Pendeford, Wolverhampton; F. Spencer, Claybrook, Lutnerworth.

PIGS.—R. H. Watson, Bolton Park, Wigton, Cumberland; T. Dods, Mount Pleasant, Wakefield.

CHEESE AND BUTTER.—G. Jennison, Belle Vue, Manchester; R. Pedley, Crewe.

GRAIN, ROOTS, AND SEEDS.—Mr. Rothwell, Croft, Warrington; Mr. Hornby, Minshull Vernon, Middlewich.

IMPLEMENTS.—J. Whalley, Mill Green, Bold, Warrington; J. J. Rowley, Rowthorne, Chesterfield.

PRIZE LIST.

HORSES.

(Competition limited to members resident in the Society's district).

Brood mares for breeding horses for draught purposes.—First, second, and third prizes, T. Statter, jun., Stand Hall, Whitfield, Manchester.

Brood mares, for breeding roadsters or carriage horses.—First prize, The Earl of Crawford and Balcarres; second, W. Taylor, Billinge Higher End, Wigan; third, Thomas Statter, jun.

Pair of draught horses.—First prize, Chas. Wm. Brierley, Rhodes House, Middleton, Manchester; second, H. B. H. Blundell, Deysbrook, West Derby, Liverpool; third, Williamson Brothers, Ramsdell Hall, Lawton, Cheshire.

Pair of agricultural horses, the property of tenant farmers.—First prize, C. W. Brierley; second, S. Lees, Preston Brook, Cheshire; third, T. Statter, jun.

Three years old colt (gelding or filly), cart breed.—First prize, W. Darbyshire, Morris Brook, Warrington; second, T. Statter, jun.

Two years old colt (gelding or filly), cart breed.—First prize, J. Hampson, Wroughton, Wigan; second, T. Hargreaves, Oakhurst, Wigan.

One year old colt (gelding or filly).—Prize, T. Statter, jun. Weaned foal (horse or filly), cart breed.—First prize, Catherine Waterworth, Upholland; second, T. Statter, jun.

Two years old colt (gelding or filly), half-bred.—First prize, The Earl of Crawford and Balcarres; second, J. Prescott, Dalton Grange, Ormskirk.

One year old colt (gelding or filly), half-bred.—First prize, Dr. McGregor, Acton, Weaverham, Cheshire; second, The Earl of Crawford and Balcarres.

(Open for Competition to the United Kingdom).

Mare or gelding for draught purposes, four years old and upwards.—First prize, C. W. Brierley, Middleton; second, Pearson and Knowles, Ince Hall Colliery, Wigan.

Three years old colt (gelding or filly), draught breed.—First prize, Williamson Brothers, Lawton, Cheshire; second, Geo. Woods, Sefton Hall Farm, Liverpool.

Two years old colt (gelding or filly), draught breed.—First prize, P. Martin, The Street, near Chorley; second, Thomas Statter.

One year old colt (gelding or filly), draught breed.—First prize, T. Statter; second, P. Martin.

Three years old colt (gelding or filly), half-bred.—First prize, H. Inman, Stretford, Manchester; second, P. Wright, Middlewich.

Two years old colt (gelding or filly), half-bred.—First prize, R. Barton, Birkenhead; second, T. Shortrede, Winstanley, Wigan.

One year old colt (gelding or filly), half-bred.—First prize, J. Wright, Middlewich; second, A. C. Smethurst, The Limes, Wigan.

Weaned foal (horse or filly), half-bred.—First and second prizes, The Earl of Crawford and Balcarres.

Brood mares for breeding hunters.—First prize, N. Ellison.

St. Helens; second, E. L. Wright, Hindley Hall, Wigan; third, T. Statter.

Roadster (mare or gelding), above 14 hands 2 inches and under 15 hands 2 inches.—First prize, T. Statter; second, H. S. Woodcock, The Elms, Wigan; third, T. Heald, Greenfield House, Billinge, Wigan.

Cobs (mares or geldings), above 13 hands 2 inches and under 14 hands 2 inches.—First prize, J. Fielden, Lostock Grange, Westhoughton; second, P. Martin, The Street, near Chorley; third, W. Woods, Wigan.

Ponies (mares or geldings), above 12 hands 2 inches and under 13 hands 2 inches.—First prize, T. Statter, jun.; second, T. Rigby, Darnhall Farm; third, J. Brookwell, Wallgate, Wigan.

Ponies (mares or geldings), under 12 hands 2 inches.—First prize, H. Ashton, Polefield Hall, Prestwich; second, J. C. Rogerson, Manchester; third, The Earl of Crawford, and Balcarres.

Stallions, thorough-bred, for getting weight-carrying hunters. Prize, Sir R. T. Gerard, Bart., Garswood.

Stallions, for getting horses for carrying or road purposes.—First prize, Lund and Redman; second, Dr. McGregor.

Stallions for getting horses.—First prize, W. Shaw; second, A. Cook; third, B. G. D. Cook.

Colts (entire), for draught purposes, foaled in 1868.—First prize, W. Barron; second, Pearson and Knowles.

Carriage horses (gelding), above four years old.—Prize, E. L. Wright.

Ladies' hackneys (mares or geldings).—First prize, R. and W. Barton; second, M. Banks.

HUNTERS.

Hunters up to 14 stone and upwards.

Extra prizes to the best leaper over hurdles and water.—First prize, T. Statter, jun.; second, E. L. Wright; third, R. A. Butcher. Leapers.—First prize, R. A. Butcher; second, E. L. Wright.

Hunters up to 12 stone and upwards.

Extra prizes to the best leaper over hurdles and water.—First prize, A. Cross; second, E. L. Wright; third, B. Goodall. Leapers.—E. L. Wright; second, Mrs. H. Johnson.

SHORTHORNS.

(Open for competition to the United Kingdom.)

Bulls above two years old.—First prize, C. W. Brierly, Rhodes House, Middleton, Manchester (Bolivar); second, A. Clough Smethurst, The Limes, Wigan; third, P. Martin, The Street, Chorley.

Bulls above one but under two years old.—First prize, W. W. Slye, Beaumont Grange, Halton; second, T. Statter, jun., Stand Hall, Whitefield, Manchester; third, P. Martin, Chorley.

Bull calves above six but under twelve months old.—Prize, N. Eckersley, Standish Hall, Wigan.

Cows above three years old, in milk or in calf.—First prize, T. Atherton, Chapel House, Speke, Garston; second, Lord Skelmersdale, Latham House; third, the Rev. L. C. Wood, Singleton Lodge, Kirkham.

Heifers above one but under two years old.—First and second prize, T. Statter, jun., Whitefield, Manchester.

Heifer calves above six but under twelve months old.—First prize, T. Atherton; second, T. Statter; third, J. Walton, Horncliffe Quarries, Rawtenstall.

OTHER BREEDS OF CATTLE.

Ayrshire cow or heifer, above two years old, in-milk or calf.—First prize, The Earl of Crawford and Balcarres, Haigh Hall; second, T. Statter.

Welsh cow or heifer, above two years old, in-milk or calf.—Prize, T. Statter.

Kerry cow or heifer, above two years old, in milk or calf.—First prize, Rev. J. C. Macdona, Hillbre House, West Kirby; second, H. Inman, Rose Bank, Stretford. Highly commended: Rev. J. C. Macdona.

French or Channel Island cow or heifer, above two years old, in milk or calf.—First prize, T. Stretch, Vine Cottage, Ormskirk; second, T. Statter. Highly commended: T. Shortrede, Park House, Winstanley, Wigan.

French or Channel Islands bull.—The Society's silver medal, H. S. Woodcock, The Elms, Wigan.

CATTLE.

(Competition limited to members resident in the Society's district.)

Bulls of any breed belonging to landlords, that are allowed to serve cows of their tenants gratis.—The Society's silver medal, the Earl of Crawford and Balcarres, Haigh Hall.

There were other local prizes.

SHEEP.

(Open for competition to the United Kingdom.)

LEICESTERS.

Shearling rams.—First and second prize, E. Riley, Kipling Cotes Farm, Beverley.

Rams of any other age.—First prize, E. Riley; second, T. H. Hutchinson, Catterick, York.

Ram lambs (Leicesters).—First and second prize, T. H. Hutchinson.

Three shearling ewes.—First prize, E. Riley; second, T. H. Hutchinson.

Three ewes of any age, having reared lambs in 1869.—First and second prize, T. H. Hutchinson.

Three ewe lambs.—First and second prize, T. H. Hutchinson.

SHROPSHIRE DOWNS.

Shearling rams.—First prize, Sarah Beach, The Hattons, Brewrod, Penkridge; second, J. Coxon, Freeford Farm, Lichfield.

Rams of any other age.—First prize, Sarah Beach; second, T. Johnson, The Hermitage.

Ram lambs.—First and second prize, Sarah Beach.

Three shearling ewes.—First prize, C. R. Keeling, Yew-tree House, Penkridge; second, T. Nock, Sutton Maddock, Shifnal.

Three ewes of any age, having reared lambs in 1869.—First prize, J. Coxon, Freeford Farm, Lichfield; second, C. R. Keeling.

Three ewe lambs.—First prize, Sarah Beach; second, J. Coxon.

OF ANY OTHER KIND.

Shearling rams.—First prize, S. Jackson, Cock Hall, Whitworth, Rochdale; second, L. Duckworth, Sheep Hay, Ramsbottom, Lancashire.

Rams of any other age.—First prize, S. Jackson; second, R. Shortreed.

Three shearling ewes.—First prize, W. Midgeley, Salisbury Old Hall, Ribchester, Preston; second, R. Shortreed.

Three ewes of any age, having reared lambs in 1869.—First and second prize, S. Ashton, Timperley.

PIGS.

WHITE BREED.

(Open for competition to the United Kingdom.)

Boars of the large breed, of any age.—First and second prize, P. Eden, Cross-lanes, Salford, Manchester; third, R. E. Duckering, Northope, Kirton Lindsey.

Boars of the middle-sized breed, of any age.—First prize, R. E. Duckering; second and third, P. Eden.

Boars of the small breed, of any age.—First prize, P. Eden; second, W. Hatton, Addingham, Leeds; third, H. Nield, The Grange, Worsley, Manchester.

Sows of the large breed, of any age.—First prize, P. Eden; second, R. E. Duckering; third, J. Birch, Sefton, Maghull.

Sows of the middle-sized breed of any age.—First and second prize, P. Eden; third, R. E. Duckering.

Sows of the small breed, of any age.—First prize, P. Eden; second and third, W. Hatton, Addingham, Leeds.

BLACK OR BERKSHIRE BREED.

Boars of any age.—First prize, M. Walton, Halifax; second and third, H. N. Abbinett, George Hotel, Liverpool.

Sows of any age.—R. Duckering; second, M. Walton; third, H. N. Abbinett.

EXTRA PRIZES.

Competition limited to residents within a radius of seven miles from the borough of Wigan.

Best boar of the large breed.—Prize, the Earl of Crawford and Balcarres.

Best boar of the small breed.—Prize, T. Comber, Redcliffe, Newton-le-Willows.

Extra stock pig.—Prize, T. Comber.

GRAIN AND ROOT CROPS.

Grown in 1870. (Open for competition to the United Kingdom.)

GRAIN.

White wheat, not less than 2 bushels.—First prize, J.

Cornes, New Farm, Hurlstone, Nautwich; second, J. K. Fowler; third, Richard Beckett.

Red or yellow wheat.—First prize, F. Lythal, The Spittal Farm, Banbury; second, T. Rigby, Darnhall Farm; third, J. Cornes.

White oats (any variety).—First and second prize, W. Birch, Stand Farm, Aintree; third, F. Lythal.

Yellow oats (any variety).—Prize, H. Nield.

Black oats.—First prize, F. Lythal; second, Henry Nield; third, Samuel Allen.

Barley (any variety).—First and second prize, J. Cartwright, Speke, near Liverpool.

Beans (any variety).—First prize, F. Lythal; second, J. K. Fowler.

ROOTS.

Six roots of Swedish turnips, any kind.—First prize, J. Cross, Gillow House, Wigan; second, the Earl of Crawford and Balcarres; third, R. Birch, Orrell, Liverpool.

Six roots of any kind of turnips.—First and second prize, the Earl of Crawford and Balcarres.

Six roots long red mangel wurzel.—First prize, J. Birch; second, J. Whitworth, Measham, Atherstone; third, J. Birch.

Six roots long red mangel wurzel.—Prize, J. Cornes, Hurlstone, Nautwich.

Six roots any kind globe mangel wurzel.—First prize, J. Whitworth, Atherstone; second, J. Birch.

Round potatoes (any variety).—First prize, H. Nield, Worsley, Manchester; second, R. and W. Barton, Leigh; third, J. Cartwright, Speke, Liverpool.

Flat potatoes (any variety).—First prize, J. Rowlinson, Warrington; second, J. Gaskell, Ashton; third, J. K. Fowler, Aylesbury.

CHEESE.

(Open for competition to the United Kingdom.)

Four cheeses above 50lbs. weight each, made on exhibitor's farm.—First prize, G. Willis, Winsford; second, G. Prescott, Middlewich.

Four cheeses less than 50lbs. each, made on exhibitor's farm.—First prize, J. Wood, Over, Cheshire; second, T. Finchett, Tarporley.

Four cheeses made in Lancashire on exhibitor's farm, not less than 20lbs. each.—Prize, H. Wood, Croft, Warrington.

BUTTER.

Six half-pounds made by exhibitor.—First prize, Henry Nield, Worsley, Manchester; second, the Earl of Crawford and Balcarres; third, S. Davies, Middlewich; fourth, E. Turner, Heywood.

Six half-pounds butter made within seven miles of the borough of Wigan.—First prize, Jane Gibson, Haigh, Wigan; second, the Earl of Crawford and Balcarres; third, R. Taylor, Aspull, Wigan.

IMPLEMENTS.

Agricultural machinery in motion.—First prize, Picketsley, Sims, and Co., Bedford Foundry, Leigh; second, J. and H. Keyworth, Liverpool.

Collection of farm implements and tools.—First prize, J. and H. Keyworth; second, Picketsley, Sims, and Co.

Dairy vessels and utensils, best assortment.—First prize, John Gidman, King-street, Knutsford; second, W. and F. Richmond, Colne.

Articles of domestic use, best assortment.—First prize, Wm. Bennett, Liverpool; second, A. Lyon, 32, Windmill-street, Finsbury, London.

Stands of carts, waggons, and drays for farm and town purposes.—Prize, Henry Hayes and Son.

Wagon for farming purposes.—Prize, H. Bracewell.

Two-horse cart for general farm purposes.—Prize, H. Bracewell.

Best one-horse cart for farm purposes.—Prize, Henry Hayes and Son.

Stable and cow-house fittings.—Prize, Musgrove Brothers, Belfast.

Two-horse cart for agricultural purposes suited to the district, with harvest gear, &c., weight not exceeding 16 cwt., wheel tyres not less than 5 inches wide.—First prize, H. Bracewell; second, A. Brown, Cottage Farm, Haigh, Wigan.

Ploughs.—Double furrow.—First prize, J. Higson, Manchester (Howard, maker); second, F. Corbett, Shrewsbury; commended, Ransomes, Sims, and Head, Ipswich, and J. and H. Keyworth, Liverpool. Swing plough.—Prize, D. Harkes, Mere, Knutsford. Wheel plough.—Prize, T. Corbett.

Cultivator for two or more horses.—Prize, J. Higson.

Link chain harrows.—Prize, T. Corbett.

Combined mowers and reapers.—First prize, Picketsley, Sims, and Co., of Bedford, Leigh; second, A. C. Bamlett, of Thirst.

One-horse reapers and mowers.—Prize, Picketsley, Sims, & Co.

Potato diggers.—A first prize of £6, and a silver medal, had been offered by the society, for improved horse potato diggers, but there were only two competitors.—Mr. Henry Nield, the Grange, Worsley, Manchester, and Mr. James Higson, 30, Thomas-street, Manchester. The judges considering that there was not sufficient improvement on last year's implements to show any merit, refused the medal, and divided the first prize between the competitors.

Mr. Bamlett has refused to accept the second prize awarded to him for combined reapers and mowers, and forwarded us a letter, which he has addressed to Mr. Rigby, the secretary of the society, in which he says: "I was induced to compete at your trials by it being represented to me, by your local secretary, that I might expect a thorough and impartial trial, and that the judges would not be local men. He also very courteously showed me over the trial ground; one portion of the meadow was of a very rough nature, having deep furrows in it, which would test a mowing machine more severely than any trial I have hitherto been at in Lancashire; the other portion of the meadow was nearly level. Now what are the facts of the case? The judges, instead of being strangers, two of them had (this season) acted as judges, viz., at Bartle and at Blackpool, in which they gave their decisions in favour of one particular machine. Was it likely they would wish to reverse their own previous decisions? Now what I have most to complain of is, the judges not testing the machines both on the rough as well as on the smooth ground. They were requested jointly by myself and Mr. Kearsley to do so, and we received evasive answers, which partly led us to expect they would. Had they given us a straight-forward answer, telling us they did not intend testing the machines on the rough ground, we would have withdrawn from the trial, as we knew that our machines would have shown to a much greater advantage on the rough ground."

RICHMONDISHIRE AGRICULTURAL SOCIETY.

MEETING AT LEYBURN.

This is a very young Society, having only been in existence a few years. It was founded to give an impetus to the pursuits of farming in the district of Richmond, and so much was its influence and usefulness felt that last year the committee agreed to extend the sphere of the Society's operations by embracing the towns of Bedale and Leyburn, both of which places had previously had their agricultural Associations. Instead, therefore, of having shows at each of these towns, and thereby making the district in effect "a house divided against itself," it was resolved to amalgamate the three towns, and to have one show for the whole. The entries on

this occasion were 65 in excess of those twelve months ago. Two new features were introduced into the show this year, namely, a display of poultry and an exhibition of agricultural produce, including cheese, butter, turnips, potatoes, and onions.

The two classes of Shorthorn bulls were all pedigree animals, descended from the purest blood. A silver cup, given by Lord Bolton, for the best animal in the cattle classes, was awarded to Messrs. Willis and Son's Windsor Fitzwindsor. The sheep department was of a very good character. We may mention the classes for shearing rams and tup lambs for crossing with black-faced ewes, the

former numbering twenty and the latter seventeen prize animals. The pigs were not so numerous as sheep. The boars of the large and small breeds were deserving of praise, and the eighteen animals, sows of any age, of the small breed, constituted a formidable competition in that class, the successful exhibitors being Mr. Greaves, of Clothierholme, and Mr. Chapman, of Seamer. The section of horses was one of considerable interest, and this department is always the source of attraction. The classes generally were well filled, that for hunting brood mares being well represented, as well as the classes for two years old geldings or fillies and colts or filly foals. The coaching horses were no less commendable, the several classes in the aggregate comprising thirty-six animals, whilst the roadsters might be said to be their powerful rivals, as they numbered forty-two, the five classes into which they were divided being in every respect worthy of the Society.

The following were the Judges :

CATTLE, LEICESTER SHEEP, AND PIGS.—Geo. Atkinson, Manor Farm, Seaham; and John Unthank, Nethercales, Penrith.

HORSES.—Hunters and Haeks: A. L. Maynard, Skinninggrove, Redcar; and Henry Lambert, Middleton Wold, Beverley. Coaching and Farm Horses: N. Clarke, Beamish Park, Fence Houses; and Robert Wade, Little Burdon, Darlington.

LONG-WOOL AND CROSS-BRED SHEEP.—Robert Wilson, Skiveden, Skipton; and John B. Beckwith, Winterburn, Skipton.

IMPLEMENTS.—Thos. Scott, Grantley, Ripon, and Broom Close, Boroughbridge; and Richard Kay, Forecett Valley, Darlington.

PRIZE LIST.

CATTLE.

Shorthorn bull, two years old or upwards.—First prize, T. Willis and Son, Manor House, Carperby; second, J. Barker, Middleham.

Shorthorn bull, not exceeding two years old.—First prize, W. Linton, Sheriff Hutton, York; second, J. Outhwaite, Baines, Catterick.

Bull calf.—First and second prizes, T. Willis and Son.

Shorthorn cow or heifer, in calf or milk, three years old or upwards.—First prize, H. T. Robinson, The Cliff, Leyburn; second, W. Linton.

Shorthorn heifer, two years old, in calf or milk.—First prize, J. Outhwaite; second, T. Willis and Son.

Yearling Shorthorn heifer.—First prize, T. H. Hutchinson, Manor House, Catterick; second, T. Willis and Son.

Heifer calf.—First prize, J. Outhwaite; second, T. H. Hutchinson.

Cow, in calf or milk, for dairy purposes, not being eligible to be entered in the herd-book.—First prize, H. T. Robinson; second, T. H. Hutchinson.

Two-years-old heifer, not being eligible to be entered in the herd-book.—First prize, T. H. Hutchinson; second, F. Dodsworth, Haraby, Leyburn.

Yearling heifer, not being eligible to be entered in the herd-book.—First prize, T. Willis and Son; second, T. R. King, Wymbury-Holme, Leyburn.

Heifer calf, not being eligible to be entered in the herd-book.—First prize, T. R. King; second, T. H. Hutchinson.

Cow, in calf or milk, for dairy purposes, the property of a cottager.—First prize, W. Busby; second, J. Tomlin.

Best animal (bull, cow, or heifer) in the show-yard.—Prize, Willis and Son.

SHEEP.

Best Leicester ram, two-shear or upwards.—First prize, T. H. Hutchinson; second, G. T. Carter, Mill Close, Bedale.

Shearling Leicester ram.—First prize, T. H. Hutchinson; second, G. T. Carter.

Leicester tup lamb.—T. H. Hutchinson; second, T. H. Hutchinson.

Three Leicester ewes, each having reared a lamb this season.—First prize, T. H. Hutchinson; second, T. H. Hutchinson.

Three shearling Leicester gimmers.—First prize, T. H. Hutchinson; second, G. T. Carter.

Long-woolled ram, not being Leicesters, two-shear or upwards.—First prize, W. Raw, High Ellington; second, J. O. and A. Trotter, Thornton Steward.

Long-woolled shearling ram, not being Leicesters.—T. H. Robinson, The Cliff, Leyburn; second, J. O. and A. Trotter.

Long-woolled tup lamb, not being Leicesters.—Prize, H. Dobson, Leyburn.

Pen of three long-woolled ewes, each having reared a lamb this season.—First prize, T. H. Hutchinson; second, J. O. and A. Trotter.

Three shearling long-woolled gimmers.—First prize, J. O. and A. Trotter; second, W. Raw.

Ram, two-shear or upwards, for crossing with blackfaced ewes.—First prize, W. Thompson, Lane House, East Witton; second, J. Styan, Mount Park.

Shearling ram, for crossing with blackfaced ewes.—First prize, J. Lambert, Swinithwaite; second, C. Other, Elm House, Leyburn.

Tup lamb, for crossing with blackfaced ewes.—First prize, C. Whitelock, Haraby, Leyburn; second, J. Burnett, Preston, Leyburn.

Pen of three ewes (each having reared a lamb this season), for breeding rams for crossing with blackfaced ewes.—First prize, T. H. Hutchinson; second, J. Theakston, Leyburn.

Pen of three gimmers, for breeding rams for crossing with blackfaced ewes.—First prize, T. Willis and Son, Carperby; second, R. Kirk, Gayle Bank, Leyburn.

Pen of three ewes, being a cross from a blackfaced ewe.—First prize, T. E. and J. Swale, Middleham; second, W. Plews, Leyburn.

Pen of three gimmers, being a cross from a blackfaced ewe.—First prize, H. Walton, Gingerfield, Richmond; second, L. Wilkinson, Cold Storms, Downholme.

Pen of five twice crossed lambs.—First prize, W. Wilson, Seales; second, T. E. and J. Swale.

The best ram (not a Leicester).—Prize, J. Lambert, of Swinithwaite.

BLACK-FACED OR MOUNTAIN SHEEP.

Ram two years old or upwards.—First prize, W. Rudsdale, Weadland's Head Yarm; second, Cass Smith, Westerdale, Yarm.

Shearling ram.—First prize, W. Rudsdale; second, C. Smith.

Pen of three ewes, each having reared a lamb this season.—First prize, C. Smith; second, W. Rudsdale.

Pen of three shearling gimmers.—First prize, W. Rudsdale; second, C. Smith.

PIGS.

Boar of any age of the large breed.—First prize, W. Rudsdale; second, G. Chapman, Seamer, Scarborough.

Boar of any age of the small breed.—First prize, G. Chapman; second, G. Chapman.

Sow of any age of the large breed.—First prize, G. Chapman; second, W. Rudsdale.

Sow of any age of the small breed.—First prize, J. Greaves, Clothierholme, Ripon; second, G. Chapman.

Pig belonging to a cottager.—First prize, J. Wilson, Rain-ton, Thirsk; second, J. Spence, Leyburn.

HORSES.

HUNTERS.

Brood mare, with foal at foot or stinted.—First prize, J. T. Robinson, Asenby, Thirsk; second, G. Meynell, Patrick Brompton.

Three-year-old gelding.—First prize, R. Brunton, Marton, Middlesbro'; second, G. Meynell.

Three-year-old filly.—First prize, J. Kirby, Knayton, Thirsk; second, C. Stirke, Barden Lane.

Two-year-old gelding or filly.—First prize, R. Emmerson, Over Dinsdale; second, R. Brunton.

Yearling gelding or filly.—First prize, R. Emmerson; second, G. T. Carter, Mill Close.

Colt or filly foal, to be shown with dam.—First prize, J. Close, Whiteaside, Reeth; second, Rev. E. C. Topham, Hauxwell.

COACHING HORSES.

Brood mare with foal at foot or stinted.—First prize, M. Robinson, Glass House, Hauxwell; second, M. Robinson.

Three-year-old gelding or filly.—First prize, C. Stirke; second, J. Hopps, High Burton.

Two-year-old gelding or filly.—First prize, W. Mothersill, Brockholme, Thornton-le-Moor; second, W. White, Leyburn.

Yearling colt or filly.—First prize, Rev. J. C. Wharton, Gilling; second, C. Stirke.

Colt or filly foal to be shown with dam.—First prize, M. Robinson; second, R. M. Jaques, Easby, Richmond.

ROADSTERS.

Brood mare, with foal at foot or stunted.—First prize, A. Hauxwell, Thirsk; second, Miss Stainton, Hauxwell, Bedale.

Three-year-old colt or filly.—First prize, W. Snowdon, Slingsby; second, G. Morton, Bedale.

Two-year-old colt or filly.—First prize, J. T. Stowell, Faverdale House, Darlington; second, W. Snowdon.

Yearling colt or filly.—First prize, J. C. Wharton; second, R. Jackson, Ainderby Myers, Catterick.

Colt or filly foal, to be shown with dam.—First prize, J. Greaves, Clothholme; second, J. Tidyman, Bellerby.

HORSES FOR AGRICULTURAL PURPOSES.

Brood mare, with foal at foot or stunted.—First prize, J. Hopps, High Burton; second, G. Linton, Bedale.

Three-year-old gelding or filly.—First prize, N. Stonehouse and Son, Skelton Mill, Marske-by-the-Sea; second, Mrs. Hedon, Hewfield House, Baldersby.

Two-year-old gelding or filly.—First prize, Mrs. Hedon; second, W. Pratt, Pond House, Bedale.

Yearling gelding or filly.—First prize, J. Holmes, Hauxwell, Bedale; second, J. O. and A. Trotter.

Colt or filly foal to be shown with dam.—First prize, H. Walton, Richmond; second, C. Stirke, Barden Lane.

Pair of horses, either sex, to be shown in plough harness.—First prize, J. Ambler, East Witton; second, J. Outhwaite, Catterick.

SPECIAL PRIZES.

Four years old hunting gelding or filly.—First prize, J. B. Booth, Catterick; second, R. Metcalfe, Malton.

Five years old or upwards hunting gelding or mare, by a thorough-bred horse.—First prize, J. B. Booth; second, C. G. Tate, Richmond.

Horse or mare of any age, which shall leap fences for the

purpose in the best style.—First prize, C. Other, jun., Richmond; second, C. Rose, Malton.

Hunting gelding or filly, not exceeding five years old, the property of tenant-farmers or tradesmen residing within the limits of the Bedale Hunt.—Prize, J. S. Atkinson, Yafforth Lodge.

Roadster gelding or mare, not more than 15 hands, and not less than four years old.—First prize, J. Robinson, Old Malton; second, A. Hauxwell, Thirsk.

Pony gelding or mare of any age, and not exceeding 14 hands high.—First prize, A. Hauxwell; second, A. Young, Richmond.

Gelding or mare for single harness, to be driven on the ground.—First prize, T. M. Fryer, Wensley House; second, C. Other, junr.

CHEESE, BUTTER, ROOTS, &c.

New milk cheese.—First prize, W. Hewgill, Bedale; second, C. Thompson, Askrigg; third, J. Pickard, Bedale.

Butter.—First prize, W. Trotter, Bedale; second, Mrs. C. Chapleo, Leyburn.

Swede turnips.—First prize, C. Stirke, Bedale; second, M. Robinson, Thornton Steward.

Yellow bullock or white turnips.—Prize, W. Trotter.

Kidney potatoes.—First prize, G. Mudd, Bedale; second, T. Mallaby, Spennithorne.

Round potatoes.—First prize, W. Ward, Leyburn; second, W. Trotter.

Onions.—First prize, G. Mudd; second, R. Hood, Leyburn.

IMPLEMENTS.

W. Waide, Leeds, £1, for improvements in barrel churn; J. Teasdale, Bedale, £1, for eleven-row steerage drill; C. Busby, Newton-le-Willows, £1, for ploughs; W. Richardson, Leyburn, £1, for collection; H. Bushell, York, £1, for assortment; W. Mattison, Bedale, £1, for improvement and cheapness in new reaping machine.

CLEVELAND AGRICULTURAL SOCIETY.

MEETING AT GUISBOROUGH.

The Cleveland is one of the oldest Societies of its class in Yorkshire, having been established nearly forty years. It has had a long career of usefulness, having visited repeatedly the whole of the towns included within its extensive area. The display of cattle was a credit to the Society. The class for bulls of any age was represented by eleven animals, the picking out of the prize beasts being a work of no little difficulty on the part of the judges. The cows in-calf or milk comprised eight prime head of cattle, the cows for dairy purposes were five in number, and the other classes of cattle included animals of some excellence, the general remark being that there was not a single mediocre beast in the yard. As regarded the sheep there was much to commend, and in the pig section were many excellent animals, the boars of the large breed under two years old all being without doubt large in the fullest sense of the word, as it would be almost impossible to produce animals of greater weight and size. The Cleveland Society has long been proverbial for its display of horses, and, as Guisborough and the district around is the home of the renowned Cleveland bays, there was at this show one of the best arrays of prime horses that could well be witnessed. It was said, indeed, there was a thorough weeding out of inferior cattle, the owners of which for very shame dared not bring bad animals to disgrace the show, and therefore there was only the very cream of horseflesh present. The Cleveland bays were not in such large force as usual, but their quality was never surpassed, whether as regarded symmetry or colour. For the agricultural stallions, adapted to improve the breed of agricultural horses, the tempting prize of £40 was offered, but, the conditions being somewhat strict and difficult to comply with, there were only three entries. The terms were, that the horse receiving the prize must be perfectly sound in every respect, and be required to travel the season of 1871, the

route within the district of the Society to be fixed in accordance with the decision of the Council, and serve mares at not more than 30s. each; the £40, which was the gift equally of the inhabitants of Guisborough and a few of the landowners in the district, to be held in the hands of the secretary of the Society until the conditions be complied with.

JUDGES.

CATTLE, SHEEP, AND PIGS.—S. Rowlandson, Newton Morrell, Darlington; G. Atkinson, Hall Farm, Seaham; T. Outhwaite, Goldsboro' House, Knaresborough.

HORSES.—Hunters and Special Prizes: C. Wood, South Dalton, Beverley; T. Ellerby, Whitwell; W. Searth, Keverstone, Darlington. Cleveland, Bays, and Coaching: J. Johnson, Brigham, Driffild; J. S. Darrell, West Aytou; J. Outhwaite, Baines, Catterick. Draught Horses, Roadsters, and Ponies: T. Scott, Broom Close, Borough-bridge, and Grantley, Ripon; P. Stevenson, Rainton, Thirsk; J. Harrison, White House, Middlesborough.

EGGS, BUTTER, AND CHEESE.—G. Watson, Middlesborough.

SHORTHORN CATTLE.

OPEN TO ALL.

Bull, any age.—First prize, W. Linton, Sheriff-Hutton; second, Jackson and Cleasby, Wilton, Redcar.

Cows in-calf or milk.—First prize, W. Linton; second, Rear-Admiral Chaloner, Longhull, Guisborough.

Heifers in-calf or milk.—Rear-Admiral Chaloner.

DISTRICT CLASSES.

Shorthorn bulls under three years old.—First prize, D. Hartley, Westerdale, Yarm; second, W. Coates, Skelton, Marske-by-the-Sea.

Shorthorn bulls under two years old.—First prize, T. Curry,

Morton Carr, Great Ayton : second, J. Peirson, Ayreholme, Great Ayton.

Shorthorn bulls under twelve months old.—Prize, C. Smith, Westerdale, Yarm.

Shorthorn cows in-calf or milk.—First prize, I. Garbutt, Brag House, Farndale, Kirbymoorside ; second, C. Smith.

Cows for dairy purposes, in-calf or milk.—First prize, J. Herring, Acklam, Middlesborough ; second, T. Atkinson, Ingley Greenhow, Northallerton.

Shorthorn two-year-old heifers, in-calf or in-milk.—Prize, I. Garbutt.

Shorthorn yearling heifers.—First prize, C. Smith ; second, I. Garbutt.

LEICESTER AND BLACK-FACED SHEEP.

DISTRICT PRIZES.

Shearling rams.—First prize, J. Peirson ; second, R. P. Petch, Priest Croft, Marske-by-the-Sea.

Two shear and upwards.—First prize, J. Peirson ; second, R. Jackson, Thornton Grange, Stockton.

Pens of five breeding ewes.—First prize, R. Peirson, Kirbybridge, Carlton ; second, T. Rickinson, Seamer, Yarm ; third, R. P. Petch.

Pens of five shearling gimmers.—First prize, R. P. Petch ; second, T. Rickinson.

Tup lambs.—First prize, R. P. Petch ; second, T. Rickinson.

Blackfaced tups.—First prize, W. Rudsdale, Danby End, near Yarm ; second, C. Smith.

Pens of five blackfaced breeding ewes.—First prize, C. Smith ; second, W. Rudsdale.

PIGS.

DISTRICT PRIZES.

Boar, under two years old, of large breed.—First prize, W. Rudsdale, Danby End ; second, J. Russell, Guisborough.

Boar, under two years old, small breed.—First and second prizes, W. Rudsdale, Danby End, near Yarm.

Sow of any age, large breed, in pig or milk.—Prize, J. Watson, Great Ayton, Northallerton.

Sow of any age, small breed, in pig or milk.—First prize, J. Nightingale, Guisborough ; second, W. Dixon, Marton, Middlesborough.

Grazing pig, the property of labourers, tradesmen, or mechanics.—First prize, J. Fidler, Stokesley ; second, S. Pitt, Marton, Middlesborough ; third, J. Ord, Upsall Pit, Gisborough.

Litter of pigs, under eight weeks of age.—First prize, R. Fidler, Stokesley ; second, R. Jackson, Normanby.

HORSES.

Best Cleveland bay brood mare.—First prize, R. J. Sayer, Great Ayton, Northallerton ; second, J. Porritt, Guisborough.

Cleveland bay colt foal.—First prize, G. Sayer, Hclbeck ; second, C. Smith, Westerdale, Yarm.

Cleveland bay filly foal.—First prize, R. Welford, Newton Mulgrave, Whitby ; second, T. Wood, Skelton, Marske-by-the-Sea.

Cleveland bay yearling filly.—First prize, I. Garbutt, Farndale, Kirbymoorside ; second, R. Welford.

Coaching brood mare.—First prize, R. Watson, Maltby House, near Stockton ; second, J. Featherstone, Marton, Middlesborough.

Coaching colt foal.—First prize, R. Johnson, Brotton, Saltburn-by-the-Sea ; second, J. Jackson, Great Ayton, Northallerton.

Coaching filly foal.—First prize, Mrs. F. Stainthorpe, Newton, near Whitby ; second, G. Coates, Redcar.

Coaching yearling gelding.—First prize, T. Curry, Great Ayton, Northallerton ; second, W. Lancaster, Cleveland, Northallerton.

Coaching two-year-old gelding.—First prize, R. Watson, Stockton ; second, W. Searth, Skelton.

Coaching two-year-old filly.—First prize, G. Gill, Brotton, Saltburn-by-the-Sea ; second, J. C. Johnson, Manfield, Darlington.

Coaching three-year-old gelding.—First prize, T. Jackson, Baraby, near Lythe ; second, Earl of Zetland.

Coaching three-year-old filly.—First prize, J. Featherstone, Marton ; second, W. Wright, Middlesborough.

Roadster brood mare.—First prize, Isaac Garbutt, Brag-

house, Farndale, Kirby Moorside ; second, T. Harrison, Wheldrake, York.

Roadster foal, colt, or filly.—First prize, F. Emmerson, Hulam, Castle Eden ; second, T. Harrison.

Roadster yearling, colt, or filly.—First prize, R. Jordison, Redcar.

Roadster two-year-old colt or filly.—First prize, W. Snowden and Son, Slingsby, York.

Roadster three-year-old colt or filly.—First prize, W. Snowden and Son ; second, H. R. W. Hart, Dunnington Lodge, York.

Draught brood mare.—First prize, T. Makin, Fairburn, South Milford ; second, W. R. I. Hopkins, Grey Towers, Middlesborough.

Draught colt foal.—First prize, T. Makin ; second, T. Upton, Pallathorpe, Tadcaster.

Draught filly foal.—First prize, A. H. T. Newcomen, Kirkleatham Hall, Redcar ; second, H. Trotter, Marske-by-the-Sea.

Draught yearling, gelding, or filly.—First prize, N. Stonehouse and Son, Skelton Mill, Marske-by-the-Sea ; second, R. Ward, Pinchingthorpe, Guisborough.

Draught two-year-old gelding or filly.—First prize, Mrs. Ann Headon, Hew Field House, Baldersby, Thirsk ; second, N. Stonehouse and Son.

Draught three-year-old gelding or filly.—First and second prizes, N. Stonehouse and Son.

In pairs for agricultural purposes, mares or geldings under eight years old, the property of a tenant farmer.—First prize, T. Curry, Morton Carr, Great Ayton, Northallerton ; second, W. and J. Wilson, Longlands Farm, Middlesborough.

Pair of young draught horses, mares or geldings, either two or three years old, the *bound fide* property of one or two persons resident within the district.—First prize, N. Stonehouse and Son ; second, N. Stonehouse and Son and R. Stevenson.

Mare or gelding under eight years of age, from 13 to 14 hands 2 inches high.—First prize, J. S. Darrell, West Ayton ; second, H. J. Curry, Stockton-on-Tees.

Mare or gelding under eight years of age, not to exceed 13 hands high.—First prize, J. T. Wharton, Skelton Castle ; second, A. Hauxwell, Thirsk.

Hunting brood mare.—First prize, J. T. Robinson, Lecky Palace, Asenby ; second, R. Jackson, Normanby.

Hunting colt foal.—First prize, J. T. Robinson ; second, T. Boys, Fryup, Danby End.

Hunting filly foal.—First prize, J. Dodsworth, Great Stainton ; second, Paul Shimmins, Blackhouse, Whitby.

Hunting yearling gelding.—First prize, Paul Shimmins ; second, J. Mewburn, Fell Briggs.

Hunting yearling filly.—First prize, R. Emmerson, Dinsdale Grange, Darlington ; second, A. H. T. Newcomen, Kirleatham Hall, Redcar.

Hunting two-year-old gelding.—First prize, J. Cattle, Barton-le-Street, Maltou ; second, R. F. Trenholm, Butterwick, Sedgfield.

Hunting two-year-old filly.—First prize, J. T. Robinson, Lecky Palace, Asenby ; second, T. Bradley, Newton, Great Ayton.

Hunting three-year-old gelding.—First prize, R. Brunton, Marton ; second, W. Ward, Bannil Flat, Whitby.

Hunting three-year-old filly.—First prize, R. Jackson, Normanby ; second, W. A. Loy, Great Ayton.

SPECIAL PRIZES.

AGRICULTURAL STALLIONS.

Stallion adapted to improve the breed of agricultural horses.—Prize, T. Johnson, Beaumont Hill, Darlington (Premier).

Five years old and upwards hunting geldings, by a thoroughbred horse.—First prize, J. B. Booth, Killerby Hall, Catterick ; second, J. S. Darrell, West Ayton.

Five years old and upwards hunting mare, by a thoroughbred horse.—First prize, Lady de L'Isle and Dudley, Ingley Manor, Northallerton ; second, R. C. Walker, Greatham, Stockton.

Four years old hunting gelding, by a thoroughbred horse.—First prize, J. B. Booth ; second, W. Stephenson, Cottingham, Hull.

Four years old hunting mare, by a thoroughbred horse.—First prize, J. Harrison, Redcar ; second, S. B. Robson, Windle Beck, Ganton.

Hunting gelding or mare of any age, by a thoroughbred horse, which had been hunted during the last season with the Cleveland or Hurworth hounds.—First prize, G. Robinson, Marton, Middlesborough; second, T. Petch, Skelton, Marske-by-the-Sea.

Horse of any age, sex, or breed, which jumped the artificial fences in the best style.—First prize, W. Duell, Low Borrowby, Hinderswell, Saltburn-by-the-Sea; second, R. Jackson, Normanby, Middlesborough.

Roadster, gelding or mare, not more than 15 hands 2 inches high, and not less than four but under eight years of age, qualified to carry 12 stones weight on the road.—First prize, J. Robson, Old Malton; second, A. Hauxwell, York Union Bank, Thirsk.

Ladies' hackney, gelding, or mare, not exceeding 15 hands 2 inches high, and not less than four but under eight years of age.—First prize, J. Cross, Ruswarp Hall, Whitby; second, T. Rickinson, Seamer, Yarm.

STOW-ON-THE-WOLD AND CHIPPING-NORTON AGRICULTURAL SOCIETY.

MEETING AT CHIPPING NORTON.

The annual show was held on Sept. 7th. The animals shown were not very numerous, but some valuable hunters were on the ground. There were also one or two bulls exhibited which distinguished themselves at the Royal Show this year. Among the sheep the point of attraction were three Abyssinian—a ram and ewe with a lamb. The ram and ewe were brought to this country from Abyssinia by Mr. Southam, of Chipping-Norton, who was engaged in the transport service during the late war, and by him presented to Mr. Bliss, the President of the year. Since then the lamb has been dropped, and the three shown together attracted much attention. There is nothing beyond their strange appearance to recommend them; they are small, ragged-looking, and by no means gainly. Some prime specimens of Gloucester cheese were exhibited.

The Judges were: For Stock, Mr. Hewer, of Fair Green, and Mr. Sargent; for Horses, Mr. A. Rushout and Mr. T. A. Cook, of Sherborne. The following is a list of their awards:

CATTLE.

Best bull, cow, and offspring, the calf not to exceed twelve months old.—Prize, G. Garne, Broadmoor Farm.

Best bull of any breed, exceeding two years old.—Prize, G. Garne, Churchill Heath.

Best bull of any breed, under two years old.—First prize, T. Garne, Broadmoor Farm; second, M. Savidge, Sarsden Lodge.

Best breeding cow, of any breed, and being in actual milk on the day of exhibition.—First prize, G. Garne; second, G. Garne.

Best pair of heifers, above two and not three years old.—Prize, G. Garne.

Best pair of heifers, above one and not two years old.—First prize, T. Garne; second, G. Garne.

SHEEP.

Best long-wool ram, exceeding the age of two years.—Prize, W. Cother, Middle Aston.

Best long-wool shearhog ram.—First prize, Executors of the late T. Gillett, Kilkenny; second, Executors of the late T. Gillett.

Best long-wool breeding ewes, each to have brought up a lamb this season.—Prize, J. W. Kimber, Shipton-under-Wychwood.

Ten best long-wool breeding theaves.—Prize, J. W. Kimber, Best Oxfordshire Down shearhog ram.—Prize, G. Wallis, Old Shifford.

Best six Oxfordshire Down breeding ewes.—Prize, G. Wallis.

Ten best stock ewes, of any other short-wool breed, each having brought up a lamb this season.—Prize, J. W. Conely, Odditon.

PIGS.

Best boar of any breed, exceeding the age of one year.—Prize, J. Wheeler, Long Compton.

Best boar of any breed, under the age of one year.—Prize, J. Wheeler.

Best breeding sow, of any age, with a litter of pigs under ten weeks old.—Prize, J. Wheeler.

Six best pigs of a litter, of any breed, not exceeding the age of four months.—Prize, J. Wheeler.

AGRICULTURAL HORSES.

Best draught stallion that has served mares within ten miles of Stow or Chipping-Norton.—Prize, T. Horne, Moreton-in-Marsh.

Best mare for agricultural purposes, and foal, her own offspring.—First prize, W. Hurlston, Ditchford Friary; second, T. Horne.

Best cart gelding or filly, two years old.—First prize, Lord Redesdale, Batsford Park; second, J. Thyer, Crickley Hill.

Best yearling cart colt or filly.—First prize, W. Hurlston; second, T. Horne.

HACKNEYS AND HUNTERS.

Best hackney, not exceeding six year old, or 15 hands, and capable of carrying 14 stone.—First prize, T. Sargeant, Churchill; second, E. Kightou.

Best horse or filly, four years old, bred within 11 miles of Stow or Chipping-Norton, possessing or promising to possess the qualities of a hunter.—Prize, W. Hurlston.

Best weight-carrying hunter, not exceeding seven years old, the property of a tenant farmer or his son, ridden last season with the Heythrop, Cotswold, North Cotswold, or Warwickshire hounds, and capable of carrying 14 stone.—Prize, T. Sargeant.

CHEESE.

To the exhibitor of the best cwt. of thick cheese, not more than three cheeses to the cwt., made from land in his occupation.—Prize, Mrs. S. Wilkins.

At the dinner Mr. HENLEY, M.P., said: Passing to the business of the day, he was sorry to say that he could not congratulate them on the appearance of the show. He had certainly seen better exhibitions in Chipping-Norton and Stow; but the present meeting was so close upon others in the county that one and all of them, more or less, were not quite in so healthy a state as they ought to be. He had been observing an interesting sight that day; he had seen the labourers receiving their rewards at the hands of the secretary, and he had been led to think that this was one of the best features of the exhibition, a feature which placed the show above many others of its class. Although the rewards were comparatively small, the people among whom they were distributed valued them much above their intrinsic worth when they were gained.

Colonel NORTH, M.P., recollected having seen the show-yard better filled in former years; but this year the county had had a great national exhibition, and that might have had something to do with the falling off in the local shows, and with the exhibition of that day.

Mr. CARTWRIGHT, M.P., said: Not many weeks ago the crops of France were ripening, and now most of them were burned or destroyed by the contending armies. He had recently returned from the scene of the war, having crossed the Rhine, and seen the valley of the Moselle. The peasantry had been endeavouring to get in and garner their crops, and he had been pleased to see the machinery in motion for that purpose on the various farms. On many of the farms in that district he found that an Oxfordshire manufacturer was well known and highly appreciated by the occupiers, and he had frequently seen the name of Mr. Samuelson, of Banbury, on many of the implements.

THE LEICESTERSHIRE AGRICULTURAL SOCIETY.

MEETING AT HINCKLEY.

Originally the Leicestershire Society, this next amalgamated with the Waltham Association, and ultimately joined the Sparkenhoe Club, which had proved so successful on the southern side of the shire, and year by year has grown into its present dimensions. Owing to various causes, the meeting was hardly expected to be so large as that of last year, held at Ashby. Local circumstances, or other reasons, would prevent its attracting so many visitors; but, although the latter exhibited a falling-off as compared with the attendance at Ashby, in the show itself, as regards entries, there were no grounds of complaint. Of horses of all kinds there was a very very fair show, and altogether the chief feature of the meeting. Of sheep the show was not large but still some very useful animals were penned. Mr. Isaac Wooton's cross-bred sheep were very commendable, as also were the ewes exhibited by Mr. T. W. D. Harris, Wooton, Northampton; Mr. W. Everard, Narborough Wood; and Mr. W. Baker, Moor Barns, Atherstone. Among Leicesters the competition was comparatively small, when it is considered that the breed ought to be well represented in the county from which it takes its name. There were, however, only three competitors for pure Leicesters. The ewes and theaves in the long-wool class were of very good quality, and the Shropshires were creditable. The cattle were well represented. Mr. W. Bradshaw's bull, White Satin, was much admired, and secured the head prize; while a very fine bull-calf under one year old, named Cæsar, the property of Mr. E. H. Cheney, Gaddesby, Leicester, attracted much attention. Of pigs there was a good show, comprising boars, breeding sows, and breeding pigs.

The cheese and butter were exhibited in a tent, and proved a capital show, the competition in cheese being very close. Among the successful competitors were Mr. T. Oakey, Normanton-le-Heath; Maria Barrs, Oddstone Hall; Mr. W. Grewcock, Barwell Fields; and Mr. J. Garratt. Three cheeses made on the Derby Factory system, exhibited by Mr. S. C. Pilgrim, were highly commended, although not for competition. Mr. W. N. Berry took the head prize for butter, of which there was but only a small supply. The poultry specimens shown were of a satisfactory character.

PRIZE LIST.

JUDGES:

Hunting and Hack Horses.—J. H. Bland, Thorpe Lodge, Newark; J. M. K. Elliott, Heathercote, Towcester; G. Higgins, Bedford.
 Cart Horses.—J. Earl, Earls Barton, Northampton; T. Marris, the Chase, Uleyby; J. W. Larkin, Lutterworth.
 Long-wooled Sheep.—J. Earl; T. Marris.
 Short-wooled Sheep and Pigs.—G. A. May, Elford Park, Tamworth; R. Brown, Wiggington House, Tamworth.
 Cattle.—M. Savidge, Sarsdon, Chipping Norton; J. Lyon, Church Farm, Stroxtou.
 Cheese and Butter: E. Mill, Wolverhampton; W. Nuttall, South Croxton.
 Implements.—J. C. Hicken, Dunchurch.

HORSES.

Best hunter, gelding or mare, not less than five years old and under ten (open to all England).—First prize, £20, S. Gale, Canon Ashby, Daventry; second, £5, J. E. Pannett, Husbands Bosworth Grange, Rugby. Commended, J. Drage, Moulton Lodge, Northampton.

Gelding or filly, four years old, adapted for hunting purposes.—First prize, £15, G. Bass, Bagworth Park, Leicester; second, £5, C. A. Pratt, Shenton, Nuneaton. Commended, J. Wakelin, Ravensthorpe, Northampton.

Gelding or filly, three years old, adapted for hunting purposes.—First prize, £10, A. J. Milner, Kinoulton, Nottingham; second, £5, F. L. Ward, Burton Overy, Leicester. Commended, G. J. Mitchell, Newton Mount, Burton-on-Trent.

Gelding or filly, two years old, adapted for hunting pur-

poses.—Prize, £5, G. Hill, Edenham, Bowm, Lincoln. Highly commended, G. J. Mitchell. Commended, J. Wood, Aston Flamville, Hinckley.

Mare calculated to breed hunters.—First prize, £10, J. Torbett, Rosliston, Burton-on-Trent; second, £5, J. Beale, Wolvey, Hinckley. Commended, T. Oakey, Normanton-le-Heath, Ashby.

Hack, not less than 14½ hands and not exceeding 15 hands 1 inch high.—First prize, £7, R. Milward, Thurgarton Priory, Southwell; second, £3, C. S. Pilgrim, The Outwoods, Hinckley. Highly commended, Major Wollaston, Shenton Hall, near Nuneaton. Commended, J. Davis, Gartree House, Leicester. The class generally commended.

Cob, not exceeding 14½ hands.—First prize, £5, R. Milward, Thurgarton; second, £2, W. H. Harrison, Oxendon House, Northampton. Commended, R. Milward.

Pony, not exceeding 13½ hands.—First prize, £5, Sir J. W. C. Hartopp; second, £2, J. H. Lilley, Forest Grange, Leicester. Commended, Isaac Berridge, North Kilworth, Rugby.

Gelding or filly, two years old, for purposes of agriculture.—First prize, £5, S. Bacon, Ratchife Culey, Atherstone; second, £2, J. Wood, Aston Flamville.

Gelding or filly, one year old, for purposes of agriculture.—First prize, £5, J. M. Brown, Ibstock, Ashby; second, £2, B. E. Bennett, Marston Hall, Market Harborough.

In-foal mare, for purposes of agriculture.—First prize, £5, W. H. Salt, Bird's Nest Farm, New Parks, Leicester; second, £2, J. Beale, Wolvey, Hinckley. Highly commended, J. Beale.

Cart stallion, for agricultural purposes, to travel the district of Hinckley for 1871.—Prize, £10, W. Euston, Claverdon, Warwick.

Foal, for purposes of agriculture.—First prize, £5, S. C. Pilgrim; second, £2, J. Beale. Commended, S. C. Pilgrim.

SHEEP.

Leicester shearling ram.—Prize, £5, to G. Turner, jun., Alexton Hall, Uppingham. Commended, G. Turner, jun.

Leicester ram of any age.—Prize, £5, G. Turner.

Long-wooled shearling ram.—Prize, £5, A. Hack, Buckminster, Grantham.

Long-wooled ram of any other age.—Prize, £5, A. Hack.

Pen of three under twenty months old of long-wooled fat wether sheep.—First prize, £5, Lord Berners, Keythorpe Hall; second, £2, T. W. D. Harris, Wootton, Northamptonshire.

Pen of three long-wooled ewes which have suckled lambs to the 20th of June.—First prize, £5, W. Everard, Narborough Wood; second, £2, T. W. D. Harris.

Pen of five long-wooled theaves, under twenty months old, intended for breeding purposes.—Prize, £5, T. W. D. Harris.

Pen of five long-wooled ewe lambs.—Prize, £5, T. W. D. Harris.

Shropshire shearling ram.—Prize, £5, W. Baker, Moor Barns, Atherstone. Highly commended, J. H. Bradburne, Pipe-place, Lichfield; commended, W. German, Measham Lodge, Atherstone.

Shropshire ram of any age.—Prize, £5, S. C. Pilgrim. Highly commended, W. Baker; commended, W. Baker.

Pen of three under twenty months old, of Shropshire fat wether sheep.—Prize, £5, S. C. Pilgrim.

Pen of three cross-bred fat wether sheep, under twenty months old.—Prize, £5, J. Beale.

Pen of three Shropshire ewes.—First prize, £5, S. C. Pilgrim; second, £2, W. Baker.

Pen of twenty Shropshire theaves, under twenty months old, intended for breeding purposes.—Prize, £5, J. H. Bradburne. Highly commended, W. Baker.

Pen of five Shropshire ewe lambs.—Prize, £5, W. Baker.

Pen of five long-woolled breeding ewes, that have suckled lambs.—First prize, £10, T. W. D. Harris; second, £5. No other entry.

Pen of twenty short-woolled breeding ewes, that have suckled lambs.—First prize, £10, W. Baker; second, £5, J. H. Bradburne. No other entries.

CATTLE.

Fat ox.—First prize, £10, to T. Pulver Broughton, Kettering, and a silver cup given by the butchers of Hinckley; second, £5, K. Fenton, Caldecote, Nuneaton. Highly commended, K. Fenton. Commended, J. J. Sharp, Broughton, Kettering.

Cow or heifer.—First prize £10, W. T. Cox, Spondon Hall, Derby; second, £5, R. Wood, Clapton, Thrapston. Highly commended, J. J. Sharp. Commended, J. Godfrey, Wigston Parva, Hinckley.

Bull, above one year and under two years old.—Prize, £7, W. Bradshaw, Wednesfield, Wolverhampton.

Bull, of any breed, over two years old.—First prize, £7, T. Hands, Cauley, Coventry; second, £3, W. S. Woodroffe, Normanton-on-Soar, Loughborough. Highly commended, K. Fenton.

Long-horn bull.—First prize, £5, W. T. Cox, Spondon Hall, Derby; second, £2, to Taverner, Upton Park, Nuneaton.

Bull calf, under one year old.—Prize, £5, E. H. Cheney, Gaddesby, Leicester. Highly commended, R. Ratcliffe, Walton-on-Trent.

Cow, in milk, having had a live calf since January 1st, 1870.—First prize, £7, to K. Fenton; second, £3, W. S. Woodroffe, Normanton-on-Soar, Loughborough.

Shorthorn cow, above three and under four years of age, having had a live calf since January 1st, 1870.—First prize, £5, K. Fenton; second, £2, R. D. Miles, Keyham, Leicester.

In-calf heifer, above two and under three years old.—First prize, £5, K. Fenton; second, £2, R. Ratcliffe. Highly commended, K. Fenton.

Stirk, above one and under two years of age.—First prize, £7, J. J. Sharpe; second, £3, T. Hands. Highly commended, R. Ratcliffe. Commended, R. D. Miles, for two entries.

Long-horned cow, in milk, having had a live calf since December 1st, 1869.—First prize, £5, J. Godfrey; second, £2, R. H. Chapman, Upton, Nuneaton.

Long-horned heifer, in calf, above two and under three years of age.—First prize, £5, W. T. Cox; second, £2, W. T. Cox. Highly commended, N. Taverner.

Heifer calf, under one year old.—Prize £5, R. H. Chapman.

Alderney or Guernsey cow or heifer, having had a live calf since January 1st, 1870, or is now in calf.—Prize, £5, W. H. Jackson, Frolesworth, Lutterworth.

TENANT FARMERS' CLASSES.

Bull, of any age.—First prize, £5, S. Birchall, Batton, Burton-on-Trent; second, £2, J. A. Beale. Highly commended, W. J. Hands, Burton Fields, Nuneaton.

Cow, in-milk, having had a live calf since January 1st, 1870.—First prize, £5, J. Beale; second, £2 10s., S. C. Pilgrim.

Heifer under three years old.—First prize, £5, W. Bradburn; second, £2, J. A. Beale. Highly commended, J. Beale.

Pair of stirks under two years old.—First prize, £5, J. M. Grundy, Drayton, Nuneaton; second, £2, S. C. Pilgrim. Highly commended, J. M. Grundy. Commended, S. C. Pilgrim.

Lot of not less four beasts, exhibited by any tenant farmer residing in the county of Leicester.—Prize, £5, J. M. Grundy.

PIGS.

Boar of the large breed.—First prize, £3, R. E. Duckering and Son, Northorpe, Kirton Lindsay; second, £1, S. C. Pilgrim.

Boar of the small breed.—First prize, £3, S. Deacon, jun., Polebrook Hall, Oundle; second, £1, W. Carver and Son, Ingarsby, Leicester.

Berkshire boar.—First prize, £5, R. E. Duckering and Son; second, £1, W. B. Fletcher, Stemboro' Mill, Lutterworth.

Breeding sow of the large breed.—First prize, £3, M. Walker, Stockley Park, Burton-on-Trent; second, £1, M. Walker. Highly commended, R. E. Duckering and Son.

Breeding sow of the small breed.—First prize, £3, R. E. Duckering and Son; second, £1, W. Carver and Sons. Highly commended, M. Walker.

Three breeding pigs, of the large breed, of one litter, not exceeding seven months old.—First prize, £3, M. Walker; second, £1, F. Spencer Claybrook Magna, Lutterworth. Commended, F. Spencer.

Three breeding pigs of the small breed.—First prize, £3, R. E. Duckering and Son; second, £1, W. Carver and Sons. Highly commended, Sir J. W. C. Hartopp, Bart.

CHEESE.

Four cheeses weighing 40lbs. each or more.—First prize, £5, T. Oakey, Normanton-le-Heath; second, £3, Maria Barrs, Odstone Hall; third, £2, T. Grewcock and Son, Stapleton. Highly commended: W. Thomson, Osbaston.

Four cheeses weighing not more than 40lbs. and not less than 30lbs.—First prize, £5, Maria Barrs; second, £3, R. Abell; third, £2, W. Grewcock. Highly commended: T. J. Scott, Stretton Baskerville; W. Grewcock; J. Garratt, Claybrooke, Magna.

Four cheeses, weight under 30lbs.—First prize, £3, J. Choyce, Pinwall; second, £2 (not awarded); third, £1, R. Abell.

EXTRA NOT FOR COMPETITION.—Highly commended: Three cheeses made on the Derby factory system, by S. C. Pilgrim.

BUTTER.

Six pounds of fresh butter.—First prize, £1, W. N. Berry, Stoke Golding; second, 10s., T. Adcock, Lubbethorpe. Highly commended: H. Bentley, Burbage.

IMPLEMENTS.

Messrs. Hunt and Pickering, Leicester, £3 for one-horse reaper, and £2 for English grist mill.

G. Penton, Hinckley, £2 for Howard's self-acting horse-rake.

W. Choyce, Sibson, Atherstone, £1 for corn-dressing machine.

Geo. Ball, North Kilworth, Rugby, £2 for agricultural carts.

NORTHAMPTONSHIRE AGRICULTURAL SOCIETY.

MEETING AT WELLINGBOROUGH.

This being the first year of returning to the old system of holding the show in the autumn instead of at midsummer, considerable anxiety was felt as to the weather, but the Thursday turned out to be an exceedingly fine day; the consequence was that there was a large attendance. The first prize in Class 1, open to All-England, for the best ox, was adjudged to a beast shown by Mr. Pulver, of Broughton. Mr. Robert Searson, a Lincolnshire breeder, carried off the blue ribbon for the best steer under the above age, with a symmetrical animal, all white, the Marquis of Exeter being second

with a red and white beast; a steer shown by Mr. R. E. Oliver, of Sholebrook Lodge, in this class, was in capital form, but failed only narrowly of securing the red ribbon (second). In class 5, the Burghley bull Telemachus carried off the first prize, and Mr. Pualett's Baron Killerby second, the bulls Royal Errant (22739), Royal Butterfly 20th, and Royal Booth (commended) being in competition. In class 6, for a bull above 2 years old, the Grand Duke blood was well represented; Mr. Charles Bayes, of Kettering, however, took first with the roan bull Prince Royal. In class 7, for a bull between one and

two years, Mr. J. A. Mumford, of Thame, obtained the first award with his Editor, which took first prize the day before at the Aylesbury show. The bull calves were of good character, and gave promise of development into fine specimens; Mr. T. E. Pawlett, of Beeston, was the winner of the £10 prize. The whole of the cows were commended, and heifers were in capital exhibition. There was a good competition in Alderneys and Guernseys. The sheep pens contained some good animals, among which were worthy of mention the long-wooled exhibited by Mr. T. W. D. Harris, of Wootton, who was, as usual, a very successful exhibitor. The classes for short-wooled or cross-bred ewes and theaves were very good, Mr. J. Treadwell, of Upper Winchendon, taking two firsts and two seconds for ewes and theaves. Lambs were in considerable number, and were a fair competition. There was a very fine show in the hunting class, Mr. H. H. Langham, of Cottesbrooke Park, taking the first prize for mares or geldings 5 years old and upwards, with a son of Cornerstone. The competition the classes for riding purposes, hackneys, and cart horses was good. The number of pigs exhibited was scarcely up to the average of former years. The poultry, on the whole, was good; but there was a meagre show of butter. Amongst the principal exhibitors of implements were: Mills and Co., Wellingborough; Amies and Barford, Peterborough; Bradford and Co. (washing machines), Manchester; Corbett, Shrewsbury; Gill, Wellingborough; Roberts, Deanshanger; Wallis, Wellingborough; Ball and Sons, Rothwell and Northampton; Hayes and Son, Peterborough; Marshall and Sons, Gainsborough; Hilton and Co. (refrigerators), London; Mobbs, Snow, and Wood, Northampton; Ransome, Simms, and Head, Ipswich; Robey and Co., Lincoln; Jeremiah Rouse, Lincoln; Stafford, Nassington; Smyth and Sons, Peasenhall; Watson, Andover; Nobles, Wellingborough; Allechin and Sons, Northampton; J. Coeh, Harlestone and Northampton; and Robinson and Co. (sewing machines), Kettering. Mr. Hope, of Wellingborough, had a tent with samples of his cattle food.

PRIZE LIST.

JUDGES.

Cattle: W. Allitt, Ginton, Peterborough; C. Howard, Bid-denham, Beds; T. Morris, Maisemore Court, Gloucester.
Riding Horses: R. Arkwright, Knuston Hall; J. Berridge, Drayton Lodge, Banbury.
Cart Horses: T. Woods, Wytchley Warren, Stamford; R. Ward, Harringworth; F. J. Berry, Stanion, Thrapston.
Sheep and Pigs: G. Hine, Oakley, Beds; C. H. Simpkin, Wardley, Uppingham; J. H. Caswell, Laughton, Folkingham.
Poultry: R. Hewitt, Eden Cottage, Sparkbrook, Birmingham.
Butter: J. Hudson, Ludgate-hill, London.
Implements: T. Wagstaff, Hull Farm, Chesterton, Peterborough; T. Pulver, Broughton, Kettering.
Ploughing: G. Underwood, Little Gaddesden, Herts; R. Dearlove, Higham Park; J. W. Whitton, Poteote, Towcester; S. Chambers, Doddington; J. Sheffield, Barton Seagrave, Kettering; R. B. Seaton, Harwick Lodge, Stamford.

CATTLE.

Ox, exceeding three years and three months old on 1st December next.—First prize, T. Pulver, Broughton; second, Earl Spencer, K.G., Althorp Park. Commended, R. Wood, Clapton, Thrapstone.

Steer, not exceeding three years and three months old on the 1st of December next.—First prize, R. Searson, Cranmore Lodge, Market Deeping; second, Marquis of Exeter. Highly commended, J. J. Sharp, Broughton, Kettering; commended, R. E. Oliver, Sholebrooke Lodge, Towcester.

Cow of any breed or age.—First prize, J. A. Mumford, Chilton Park Farm, Thame; second, J. W. Perridge, Adstone.
Heifer of any breed, not exceeding four years old.—First prize, R. Wood; second, J. J. Sharp.

BREEDING AND STORE STOCK.

Bull of any age.—First prize, Marquis of Exeter (Tele-machus); second, T. E. Pawlett, Beeston, Sandy (Baron Killerby). Commended, T. E. Pawlett.

Bull above two years old.—First prize, C. Bayes, Kettering (Prince Royal); second, R. E. Oliver. Commended, Earl Spencer, K.G., and Sir W. de Capel Brooke.

Bull above one and under two years of age.—First prize, J. A. Mumford; second, J. N. Beasley, Pitsford Hall, Northampton (Jaz).

Bull calf above six and under twelve months old.—First prize, T. E. Pawlett (Majestic); second, R. Wood (Lord Aberdeen 2nd). Commended, G. Pell, Heyford.

Cow, in-milk or in-calf.—First prize, J. How, Broughton, Hunts (Lady Anne); second R. Searson (Magnolia). Highly commended, The Marquis of Exeter.

Pair of cows, of any breed, in-milk or in-calf.—First prize, R. Searson (Beauty's Queen and Sprightly); second, J. A. Mumford (Etona).

Heifer, of any breed, in-milk or in-calf, above three and under four years old.—First prize, R. Searson (Winter Rose); second, Sir W. de Capel Brooke, Bart, Geddington Grrange, Kettering.

Heifer, of any breed, in-milk or in-calf, above two and under three years old.—First prize, J. A. Mumford (Camilla); second, R. Searson (Sweetheart). Highly commended, The Duke of Buccleuch.

Heifer, of any breed, above one and under two years old.—First prize, J. How (Vesper Queen); second, G. Pell. Highly commended, The Duke of Buccleuch.

Heifer calf, of any breed, under twelve months old.—Prize, T. E. Pawlett (British Queen).

Short-horned heifer, above one and under two years old.—First prize, J. J. Sharp; second, R. E. Oliver. Highly commended, R. E. Oliver; commended, J. N. Beasley.

Alderney or Guernsey cow or heifer, in-milk or in-calf.—First prize, A. A. Young, Orlingbury, Wellingborough; second, J. Shaw, Hunsbury Hill, Northampton. Commended, D. Dulley, jun., Wellingborough.

SHEEP.

Pen of ten long-wooled ewes, that have suckled lambs to the 1st June, 1870, bred by and property of exhibitor.—First prize, C. Clarke, Ashby-de-la-Launde, Sleaford; second, T. W. D. Harris, Wootton, Northampton.

Pen of five long-wooled theaves, bred by and property of exhibitor.—First prize, T. W. D. Harris; second, Marquis of Exeter.

Pen of five short-wooled or cross-bred ewes, that have suckled lambs to the 1st of June, 1870.—First and second prizes, J. Treadwell, Upper Winchendon, Aylesbury.

Pen of five short-wooled or cross-bred theaves.—First and second prizes, J. Treadwell. Commended, J. Woolston, Wellingborough.

Pen of three short-wooled or cross-bred shearhogs.—First prize, H. Purser, Wellington Manor, Beds; second, M. E. Jones, Wellingborough. Commended, J. Woolston.

Pen of three long-wooled shearhogs.—First and second prizes, T. W. D. Harris.

Shearling long-wooled tup.—First prize, A. Hack, Buckminster, Grantham; second, C. Clarke.

Long-wooled tup, of any breed, two-shear and upwards.—First prize, A. Hack; second, T. W. D. Harris.

Shearling down tup, of any distinct breed.—First prize, F. Street, Harwood House, Bedford; second, J. Longland, Grendon, Northampton.

Down tup, of any distinct breed, two-shear and upwards.—First prize, J. Longland; second, R. E. Oliver.

Five long-wooled wether lambs.—Prize, S. Middleton, Water Newton, Wansford.

Five long-wooled ewe lambs.—First and second prizes, T. W. D. Harris.

Five short-wooled or cross-bred wether lambs.—First prize, J. Woolston; second, W. Wykes, Bozeat.

Five short-wooled or cross-bred ewe lambs.—First and second prizes, F. Street.

PIGS.

Boar of any breed.—First prize, S. Deacon, Polebrook Hall, Oundle; second, R. E. Duckering, Northorpe, Kirton Lindsey.

Breeding or suckling sow, of any breed.—First prize, R. E. Duckering; second, R. Sykes, Geddington, Kettering.

Breeding or suckling sow, of a small breed.—First prize, R. E. Duckering; second, J. Wheeler, Long Compton, Shipston-on-Stour.

Three fat pigs of one litter of any breed or age.—Prize, R. E. Duckering.

Five breeding pigs of one litter, exceeding three and not exceeding six months old.—First prize, J. Wheeler; second, R. Sykes.

HORSES.

Mare and foal, for hunting purposes.—First prize, T. Stokes, Caldecott, Rockingham; second, Captain M. Clerk, Spratton Hall, Northampton.

Mare or gelding, five years old and upwards, adapted for hunting purposes.—First prize, H. H. Langham, Cottesbrooke Park; second, L. Lucas, Irthlingborough. Commended, W. G. Maxwell, Walton House, Peterborough, and W. Whitehead, jun., Wollaston.

Mare or gelding, above four and under five years old, adapted for hunting purposes.—First prize, A. Britton, Great Billing Farm; second, J. Drage, Moulton Lodge. Commended, T. D. Hensman, Harlestone.

Gelding or filly, above three and under four years old, adapted for riding purposes.—First prize, G. B. Lynes, Preston Deanery; second, W. Franklin, Barford Lodge.

Gelding or filly, above two and under three years old, adapted for riding purposes.—First prize, W. Core, Fletton Lodge, Peterborough; second, J. E. Parsons, Charwelton. Highly commended, J. Dix, Seywell Grounds, Blakesley.

Gelding or filly, above one and under two years old, adapted for riding purposes.—First prize, R. Battams, Oxendon; second, J. Goodliff, Connington Lane, Hufts. Commended, A. Goodman, jun., Willow Hall, Thorney.

Mare, not exceeding 15 hands 1 inch high, with foal at foot, for breeding hackneys.—First prize, S. Wallis, Barton Seagrave, Kettering; second, T. J. Adkins, the Booth Farm, Northamptonshire.

Hackney (mare or gelding), not exceeding 15 hands 1 inch high.—First prize, W. H. Harrison, Oxendon House, Northampton; second, G. B. Lynes. Commended, J. N. Beasley and W. Whitehead, jun.

Cob (mare or gelding), not exceeding 14 hands high.—First prize, J. E. Parsons, Charwelton, Daventry.

Pony (mare or gelding), not exceeding 13 hands high.—

Prize, J. Tew, West Haddon, Rugby. Highly commended, J. Goodliff, Connington Lane, Hufts.

Cart mare, with a foal at foot.—First prize, F. Furnaby, Pipewell Lodge, Kettering; second, J. Moore, jun., Bugbrooke, Weedon.

Cart gelding or filly, above three and under four years old.—First prize, R. H. Timms, Manor House, Braunston, Rugby; second, R. H. Hewitt, Dodford, Weedon.

Cart gelding or filly, above two and under three years old.—First prize, C. B. Bletsoe, Grendon Hall, Northampton; second, R. H. Timms, Manor House, Braunston, Rugby.

Cart gelding or filly, above one and under two years old.—Prize, C. Richards, Bunker's Hill, Glendon.

BUTTER.

Best 12 lbs. of butter, made up in 2lb. lumps, wholly or partially the produce of Alderney cows.—Prize, General Bouverie, Delapre Abbey.

Best 12 lbs. of butter, made up in 2lb. lumps.—J. Tew, West Haddon.

Best 6 lbs. of butter, made up in 1lb. rolls.—First prize, J. Craig, Fotheringhay; second, W. Walker, Cranford St. Andrew; third, A. Britten, Great Billing Farm; fourth, W. Goodliff, Stowe.

IMPLEMENTS.

Medals awarded to Mills and Co., Wellingborough, for general collection; Amies, Barford, and Co., Peterborough, general collection, also for grist mill and dressing apparatus, and for improved Champion's patent anchor; E. and H. Roberts, Deanshanger, improved fastenings to V. R. plough; P. R. Wallis, Wellingborough, general collection; Ball and Son, Rothwell and Northampton, improved leverage to share; Hayes and Son, Stamford and Peterborough, collection of waggons and carts; Marshall, Son, and Co., Gainsborough, improved engine and thrashing machine; Mobbs, Snow, and Wood, Parade, Northampton, general collection. Highly commended: A set of draining tools, exhibited by Mobbs, Snow, and Wood.

WARWICKSHIRE AGRICULTURAL SOCIETY.

MEETING AT LEAMINGTON.

The competition was somewhat limited in several classes, notably in those for Hereford and Devon cattle, and in most of those for sheep. In the Shorthorns numerous entries were made by Messrs. Garne, but none of the animals put in an appearance, and in the aged bull class there was nothing to approach Mr. Pawlett's Baron Killerby, whose value as a sire was attested by the merit of his two sons, Royal Booth and Fitzkillerby, the former shown by Mr. Pawlett and the latter by Mr. E. Lythall, which occupied the second place in their respective classes. The first in two-year-olds was the Marquis of Exeter's Telemachus, a very level deep-grown bull, excellent in his girth, and a previous prizetaker in Lincolnshire and Rutland. Another Bingley Hall purchase at the spring show was first in yearlings: a large-framed red bull from Mr. R. Robbins, who now exhibited him. The second prizetaker was shown by Mr. Hamer and bred by Mr. Sheldon. The cows and heifers were inferior to the bulls. In the Hereford class Messrs. Baldwin and Whitehouse were the only exhibitors, and prizes were awarded to every animal they sent. A solitary Devon, from Westoa Hall, received first prize. Mr. J. H. Burbury, in very short classes obtained both the bull and cow prizes for Longhorns. As far as regarded the Leicester and Shropshire sheep, the awards of the judges were completely at variance with those at the recent shows at Kidderminster and Hinckley. Mr. Francis Spencer here had the best of Mr. G. Turner all through with Leicester rams. A very short show of Shropshires is to be accounted for by the lateness of the season for rams, and would be classes for lambs as more likely to fill at this time of the year. The ram classes were almost reduced to a match between Mrs. Beach and Mr. Baker. Mr. G. Wallis was the only exhibitor of Oxfords. He sent two very useful rams, and a magnificent looking pen of yearling ewes, winning two firsts and a silver

cup open to all breeds. Upwards of 120 horses were entered. Amongst the hunters Mr. J. E. Bennett took the £25 piece of plate, with a good-looking son of Artillery. Some very useful hacks and ponies were shown in the class under 15 hands. The white pigs of Messrs. Duckering, Wheeler, and M. Walker have been so frequently commented on of late that it seems almost needless to repeat that the honours were shared by these breeders, one first being, however, wrested from them with a small-bred sow, by Mr. E. Umbers. A few good Berkshires were shown. For implements the society gave £50, to be awarded in sums at the discretion of the judges. The following were the successful exhibitors: Messrs. Penney and Co., Lincoln, £5; G. Ball, North Kilworth, Rugby, £5; W. Glover and Sons, Warwick, £5; T. Baker, Compton Newbury, Berks, £3; G. W. Grove, Leamington, £3; Richmond and Chandler, Salford, Manchester, £3; T. Corbett, Perseverance Ironworks, Shrewsbury, £2; Woods, Cocksedge, and Warner, Stowmarket, £2; T. Radclyffe, Leamington, £2; Bowen and Horncastle, Leamington, £2; J. Le Butt, Bury St. Edmunds, £1. Highly commended, Milburn and Co., Whitechapel, London.

JUDGES.

CATTLE.—W. Sanday, Radcliffe-upon-Trent, Nottingham; J. Walker, Knightwick, Worcester; Toone, High Cross, Lutterworth.

SHEEP AND PIGS.—J. Bryan, Southleigh, Witney; W. Smith, Bibury, Fairford.

HORSES.—Agricultural: Phipps, Marshgibbon, Bicester; S. Spencer, Snareson, Ashby-de-la-Zouch. Hunters and Hacks: R. Leeds, Wicken House, Castleacre, Norfolk; T. Percival, Wansford.

CHEESE: P. Jacks, Leamington.

PLOUGHING, DRAINING, HEDGING, AND THATCHING.—R. H. Chapman, Upton, Neuneaton; G. Keeling, Hampton House, Penkridge; J. Beale, Brockhurst, Luticworth; J. Coxon, Freeford, Tamworth.
The following is the prize list:

C A T T L E.**SHORTHORNS.**

Best bull above three years old.—Prize, T. Pawlett, Brees-ton, Sanday (Baron Killerley).

Best bull over twenty months and under three years old.—First prize, the Marquis of Exeter (Telemachus); second, T. E. Pawlett (Royal Booth).

Best bull over ten and under twenty months old.—First prize, R. Robbins, Kenilworth; second, C. M. Hamer, Snitterfield (Blue Gown).

Best cow, in-milk, above three years old.—First prize, W. Bradburn, Wednesfield (Miss Chesterfield); second, Captain Seehouse, Ashby St. Legers.

Best pair of heifers under three years old, in-milk or in-calf.—First prize, T. Hands, Canley; second, R. Robbins, Kenilworth.

Best pair of heifers under two years old.—First prize, T. Hands; second, W. Bradburn, Wednesfield.

HEREFORDS.

Best bull above three years old.—Prize, J. H. Whitehouse, Ipsley Court.

Best bull above ten months and under three years old.—First prize, J. Baldwin, Luddington; second, J. Baldwin.

Best cow, in-milk, above three years old.—First prize, J. Baldwin; second, J. H. Whitehouse.

DEVONS.

Best bull.—Prize, the Executors of the late A. Umbers, Weston Hall.

LONGHORNS.

Best bull.—Prize, J. H. Burbury, Kenilworth Chase.

Best cow or heifer, in-milk.—Prize, J. H. Burbury.

Best bull for breeding purposes, of any pure breed.—Prize, G. H. Canning, Shottony (Bedford).

Best pair of steers, of any breed, under three years old.—Prize, W. Caless, jun., Adderbury Grounds.

Best pair of cows, in-milk, which have been used in the exhibitor's dairy for the last two seasons.—First prize, T. Hands, Canley; second, E. Lythall, Radford Hall.

SHEEP.**LEICESTERS.**

Best shearing ram.—First and second prizes, F. Spencer, Claybrooke.

Best two-shear ram.—First prize, F. Spencer; second, G. Turner, jun., Alexton Hall.

Best pen of five ewes that have suckled lambs to the 1st of June, 1870.—Prize, W. Hurleston, Heathcote.

OTHER LONGWOOLLED SHEEP.

Best shearing ram.—First and second prizes, J. Wheeler, Long Compton.

COTSWOLD SHEEP.

Best shearing ram.—First and second prizes, Executors of the late T. Gillett, Kilkenny, Faringdon.

Best two-shear ram.—First prize, J. Godwin, Troy Farm, Somerton; second, T. Beale Brown, Salperton Park.

Best pen of five ewes that have suckled lambs to the 1st of June, 1870.—Prize, Executors of the late T. Gillett.

SHROPSHIRE SHEEP.

Best shearing ram.—First prize, W. Baker, Moor Barns, Atherstone; second, Sarah Beach, The Hattons, Breewood.

Best two-shear ram.—First prize, W. Baker; second, Sarah Beach.

Best pen of five ewes that have suckled lambs to the 1st of June, 1870.—Prize, W. Baker.

OTHER SHORTWOOLLED SHEEP.

Best shearing ram.—Prize, G. Wallis, Old Shifford, Bampton.

Best two-shear ram.—Prize, G. Wallis.

HORSES.**AGRICULTURAL.**

Best stallion.—First prize, J. Jennaway, Cryfield; second, J. Manning, Orlingbury.

Best mare in foal, or with a foal at her foot.—First prize, A. H. Thursby, Wormleighton; second, J. Davies, Budbrook.
Best filly, under three years old.—Prize, J. Canning, Sherbourne.

Best cart gelding, above four years old, that has been regularly worked.—Prize, G. Cook, Grove Fields.

Best cart mare, above four years old, that has been regularly worked.—Prize, J. Canning.

HUNTERS.

Stallion best adapted for hunting purposes.—Prize, T. Whittington, Wootton Waven (Glenlyon).

Best hunter that has been ridden in the past season with the Warwickshire hounds.—First prize, Miss E. M. Davey, Radford Manor House; second, S. Gale, Canons Ashby.

Best hunter, four years old and upwards, to be jumped on the ground.—First prize, W. Rose, Offchurch; second, S. Cat-terns, Binley.

Best four years old gelding or filly, adapted for hunting purposes, the property of a tenant farmer.—Prize, L. Riley, Packington, Coventry.

Best half-bred two years old colt or filly.—Prize, E. Scriven, Wormleighton.

Mare best calculated to breed hunters, with a foal at her foot.—Prize, J. Beale, Wolvey Grange.

Best hunter belonging to a Warwickshire farmer.—First prize, J. G. Bennett, Bosworth Grange; second, S. M. Simpson, Stoneleigh.

Best weight-carrier, equal to not less than 15 stone.—Prize, E. Righton, Thornton House, Eatington.

HACKNEYS AND PONIES.

Best hackney, exceeding 15 hands high.—Prize, R. S. Whitehouse, Leamington.

Best hackney, not exceeding 15 hands high.—Prize, W. Mann, Chesterton.

Best pony, above 13 and not exceeding 14 hands high.—Prize, W. Walker, Hillmorton.

Best pony, above 12 and not exceeding 13 hands high.—Prize, T. Garrett, Compton Scorpion.

Best hackney, exceeding 15 hands high, belonging to a Warwickshire farmer.—Prize, H. Stilgoe, Clopton.

Best cob, not exceeding 14 hands.—Prize, E. Lythall, Radford Hall.

Best pair of carriage horses, not less than 15 hands 2 in.—Prize, W. Root, Leamington.

PIGS.

Best boar pig of the large breed (except Berkshire), under 18 months old.—First prize, R. E. Duckering, Northorpe; second, J. Wheeler, Long Compton.

Best boar pig of the large breed (except Berkshire), above 18 months old.—First prize, R. E. Duckering; second, J. Wheeler.

Best boar pig of the small breed, under 18 months old.—First prize, J. Wheeler; second, R. E. Duckering.

Best boar pig of the small breed, above 18 months old.—First prize, E. Umbers, Wappenbury; second, R. E. Duckering.

Best boar pig of the Berkshire breed, under 18 months old.—First prize, J. Spencer, Villiers Hill; second, H. Humphrey, Kingstone Farm, Shriveham.

Best boar pig of the Berkshire breed, above 18 months old.—First prize, H. Humphrey; second, J. Smith, Henley-in-Arden.

Best breeding sow, suckling pigs of her own farrow, of the large breed (except Berkshire).—First prize, M. Walker, Stockley Park; second, F. F. Wells, Weston-under-Wetherley.

Best breeding sow of the small breed.—First prize, M. Walker; second, J. Wheeler.

Best Berkshire sow.—First prize, H. Humphrey; second, J. Stanley, Leamington.

Three best breeding pigs, of one farrow of 1870, of large breed.—Prize, M. Walker.

Three best breeding pigs, of one farrow of 1870, of small breed.—Prize, R. E. Duckering.

Three best breeding pigs, of one farrow of 1870, of Berkshire breed.—Prize, Rev. H. G. Baily, Swindon Vicarage.

EXTRA STOCK.**SHEEP.**

Five shearing Oxfordshire down ewes, 20 months old.—Prize, G. Wallis, Old Shifford, Bampton.

CHEESE.

Three best cheeses, not less than 70lb. each, the property of the exhibitor, a member, and made from his own dairy in 1870.—Prize, G. Gibbons, Tunley Farm, Bath.

Best three cheeses, not exceeding 50lb. each, the property of the exhibitor, a member, and made from his own dairy in 1870.—Prize, S. C. Pilgrim, Burbage.

IMPLEMENTS.

For implements, £50, to be given at the discretion of the

judges.—T. Corbett, Perseverance Ironworks, Shrewsbury, £2; Milburn and Co., 76, Church-lane, Whitechapel, London, highly commended; J. Le Butt, Bury St. Edmunds, £1; Woods, Coekesedge, and Warner, Stowmarket, £2; Barrows and Stewart, Banbury, £5; G. Ball, North Kilworth, Rugby, £5; Richmond and Chandler, Salford, Manchester, £3; W. Glover and Sons, Warwick, £5; T. Radclyffe, High-street, Leamington, £2; J. W. Mann, Market-square, Warwick, £3; T. Baker, Compton, Newbury, Berks, £3; Bowen and Horn-castle, Leamington, £2.

NORTH SHROPSHIRE AGRICULTURAL SHOW.

MEETING AT WELLINGTON.

The annual show was held at Wellington. Of the cattle, the Shorthorns were decidedly the best represented, the class for bulls of any age being remarkably good. There were some choice animals among the Herefords, but as a class they did not come up to the Shorthorns. The sheep were confined to Shropshires entirely, and were not so meritorious as one would have expected to find on their own native soil. As it was the most successful exhibitor came from the neighbouring county of Stafford—Mrs. Beach, of Brewood, who exhibited some excellent pens. The judging was very much commented on in the classes for ewes, in which some apparently very fine pens, exhibited by a well-known Staffordshire breeder, were entirely passed over. The judges excluded them on the ground that they were not of the pure Shropshire type, were wanting in uniformity, were over-fed, and otherwise got up for exhibition. There was a good show of horses; those for agricultural purposes, especially the pairs, were perhaps the best. The bay mare and foal which took the first prize in the class for mares and foals for hunting purposes was much admired. There was a good entry of pigs, and a large proportion of them were of superior quality. The Wellington district not being a dairy country, there was not much competition for the prizes offered for butter and cheese.

JUDGES.

LEAPING HORSES.—Capt. Lloyd, Shawbury; Capt. Boughey, Bridgnorth; and Sir. H. G. Harnage.

HORSES.—Mr. Lea, Stoke Grange; Mr. Bourne, Burleydam.

CATTLE.—Shorthorns: Mr. Heatley, Wem; W. Hassall, Bubney, Whitehurch. Herefords: Jos. Meire, Abbotsfield; R. Jones, Norton Condover.

SHEEP AND PIGS.—G. Cureton, Beam House; S. Hudson, Wytheford Hall.

IMPLEMENTS.—E. Davies, Patton, Wenlock; Mr. Brewster, Balderton Hall, Middle.

CHEESE AND BUTTER.—T. Burgess, Whitechurch; Mr. Platt, Manchester.

PRIZE LIST.

HORSES.

Leaping horses.—First prize, W. Wright, Stanford's Bridge; second, E. Beddard, Wolverhampton.

AGRICULTURAL AND OTHER HORSES.

Mare and foal.—First prize, T. Mansell, Ereal Park, Wellington; second, C. Felton, Long Lane Farm, near Wellington.

Pair of horses.—First prize, J. Shepard, Wellington; second, G. Smith, Eaton Constantine, Wellington.

Single horses.—First prize, C. Felton; second, T. Campbell, Eytton Hall, near Wellington.

Colts foaled in 1868.—First prize, Mrs. Sankey, Bratton, near Wellington; second, E. B. Steedman, High Ercall, Wellington.

Colts foaled in 1869.—First prize, St. J. C. Charlton, Apley Castle, Wellington; second, C. Felton.

For hunting purposes: Mare with foal.—First prize, P. Everall, Uckington, Wroxeter; second, St. J. Charlton, Apley Castle, Wellington.

Colts foaled in 1869.—First prize, T. Dicken, Ellerdine, Wellington; second, W. Ford, Elford Hill, Eccleshall.

Saddle and harness horses.—First prize, G. McKnight, Mossy Green, near Oakengates; second, T. Mansell.

Colts.—First prize, G. McKnight; second, M. Billing, Meeson Hall, near Wellington.

SHROPSHIRE SHEEP.

Rams.—First prize, Mrs. S. Beach, Brewood; second, W. Fowler, Acton Reynald.

Rams of 1869.—First prize, Mrs. S. Beach; second, T. Nock, Sutton House, near Shiffnal.

Rams of 1870.—First and second prizes, Mrs. S. Beach.

Ewes.—First prize, T. Mansell; second, R. Tanner, Dorrington.

Ewes of 1869.—First prize, T. Nock; second, T. Mansell.

Ewe lambs.—First prize, Mrs. S. Beach; second, M. Williams.

CATTLE.

Shorthorn bulls.—First prize, S. L. Horton, Park House, Shiffnal; second, J. E. Stanier, Uppington, Wellington.

Shorthorn bull, calved 1869.—First prize, Sir C. F. Smythe, Bart., Acton Burnell Park, Shrewsbury; second, S. Dicken, Little Ness, Baschurch.

Shorthorn cow.—First and second prizes, C. Jukes, Beslow Hall, Wroxeter, Shrewsbury.

Heifers calved 1868.—First prize, S. and J. Perry, Acton Pigott, Condover; second, S. L. Horton, Shiffnal.

Pair of Shorthorn heifers, calved 1869.—First prize, W. Bradburn, Wednesfield, Wolverhampton; second, S. and J. Perry.

Herefords, bulls.—First prize, Rev. W. B. G. Botfield, Decker Hill, Shiffnal; second, G. Smith, Wellington.

Bulls of 1869.—First prize, J. Harding, Bieton, Shrewsbury; second, R. Tanner, Frodesley, Dorrington.

Cows.—First and second prizes, M. Williams, Dryton, Wroxeter.

Heifers.—First prize, R. Tanner, Dorrington; second, H. Davies, Patton, Mueh Wenlock.

Heifers of 1869.—First prize, J. Harding, Shrewsbury; second, R. Tanner, Dorrington.

Best ewe, of any breed, for dairy purposes.—First prize, R. Dicken, Wellington; second, St. J. C. Charlton, Wellington.

EXTRA STOCK.

Horses.—First-class medal, St. J. C. Charlton; second-class medal, H. J. Wilde, Claverley, Bridgnorth.

Cattle.—First-class medal, R. Everall; second-class medals, S. and J. Perry, Condover.

PIGS.

Boar.—First prize, J. Heatley, Old Springs Farm, Market Drayton; second, Mrs. Allen, Upton Magna.

Breeding sow, in pig.—First prize, Sir H. G. Harnage, Bart., Belwardyne Hall, Much Wenlock; second, T. Jukes, Wellington.

Farrow of pigs.—First prize, T. Radcliffe, Cheswell Grange; second, W. Ford, Elford Hill, Eccleshall.

Cottager's pig.—First prize, R. Richards, Wellington; second, W. Hendley, Wellington.

CHEESE.

First prize, J. Heatley, Market Drayton; second, T. Simon, Ternhill, Market Drayton.

BUTTER.

First prize, H. Smith, Eaton Constantine, Wellington; second, G. Smith.

CHESHIRE AGRICULTURAL SOCIETY.

MEETING AT SANDBACH.

The entries of cheese were scarcely so numerous as they have been in previous years, but it was observable that there was much less disparity as to merit in the different classes. There were nineteen entries for the first premium, the champion prize being taken by a well-known Cheshire maker, Mr. Jos. Aston, of Brassey Green; and very close upon his heels came Mr. Balmer, of Tattenhall-lanes. The judges remarked that they had never seen a finer show of cheese. The butter taking prizes was good, but perhaps not up to the ideal of what fresh butter should be. The flavour can be seriously impaired or disguised by salt. The stock was most noticeable on account of the younger bulls and the dairy cows, there being a marked falling-off in the other young stock, as only for one premium was there competition, that offered for heifer calves; both heifers and stirks were conspicuous by their absence. Of the pigs, the entries both of the large and small breeds brought together some good pens. There was just the right class of agricultural horses, and the hunters were fully up to the average standard of merit. None of the Shropshire sheep breeders had entered, but still there was no lack of competition, or rather entries, for one exhibitor had entered five sheep for one premium, three for another, two for another, and so on. His enterprize was rewarded by a second prize. They were long-woolled, and perhaps the quality of these was better than that of the short-woolled, where Mr. Johnson, of Frodsham, possessed an undoubted advantage over the other exhibitors. The vegetables and seeds were good. The show of implements was very fair. The following is the list of prizes:

CHEESE.

For the best dairy of cheese, either old or new, not less than 50lbs. weight each.—First prize, J. Aston, Brassey Green, Tarporley; second, T. Balmer, Tattenhall Lanes.

Best dairy of new cheese, not less than 20lbs. nor more than 50lbs. weight each.—First prize, S. Willis, Clotton, Tarporley; second, W. Beckett, Clive.

For the best dairy of cheese averaging above 40lbs. weight each, not made on the Sabbath Day.—Prize, W. Beckett.

Best dairy of cheese not on the average exceeding 40lbs. weight each, not made on the Sabbath Day.—Prize, J. Beckett, Thurlwood Farm, Lawton.

BUTTER.

For the best six dishes of butter, made by the exhibitor.—First prize, S. Davies, Eardswick Hall; second, S. Willis, Clotton, Tarporley; third, J. Parry, Weetwood, Tarporley.

CATTLE.

Best bull of any age.—Prize, C. Sherwin, Bostock.

For the best bull above two years old.—First prize, G. Willis, Ridley Hall, Tarporley; second, R. Barnett, Wettenhall.

Best yearling bull.—First prize, J. Barker, Rushton; second, A. Bibbey, Astbury; third, J. Vernon, Willingtons.

Best bull calf.—Prize, C. T. Dean.

Best pair of dairy cows.—First prize, Lord Crewe, Crewe Hall; second, G. Willis; third, J. Farr, Hatton Hall.

Best dairy cow in-milk.—First prize, J. Hart, Bulkeley; second, J. Parr, Hatton; third, G. Willis.

Best pair of heifer calves.—First prize, J. Goolden, Hale, Altrincham; second, J. Hart, Bulkeley; third, J. Barker, Rushton.

PIGS.

For the cottager's or labourer's best fattened pig.—First prize, C. Duning, Chapel-street, Sandbach; second, J. Morrey, Well-street, Sandbach.

LARGE BREED.

Best boar pig of any age.—First prize, H. Goodall, Arclid; second, Sir Philip de M. Grey Egerton, Oulton Park.

Best breeding sow of any age.—First prize, J. Robinson,

Lee Green Hall, Middlewich; second, P. Wright, Church Minshull.

Best litter of pigs not less than eight in number.—First prize, S. Davies, Eardswick Hall; second, R. T. Beckett, Oulton Park, Tarporley.

SMALL BREED.

Best boar pig of any age.—First prize, S. Davis; second, H. Goodhall.

Best breeding sow of any age.—First prize, S. Davies; second, H. Goodhall.

Best litter of pigs not less than eight in number.—Prize, S. Davies.

Best pair of gilts.—First prize, Marquis of Westminster; second, R. Beckett, Hartford.

HORSES.

Best pair of horses for agricultural purposes.—First prize, Stonetrough Colliery Company; second, S. Lees, Newton, Preston Brook.

Best mare or gelding for agricultural purposes.—First prize, J. Pover, Elton Hall, Chester; second, Stonetrough Colliery Company.

Best stallion for agricultural purposes.—First prize, R. Ash, Biddulph; second, E. Burgess, Smallwood.

Best mare or gelding as a roadster.—First prize, G. F. and A. Brown, Nantwilt; second, G. Millington, Ravenscroft.

Best brood mare, with the foal at her foot, for agricultural purposes.—First prize, P. Leather, Stretton; second, Marquis of Westminster.

Best two-year-old gelding or filly for agricultural purposes.—First prize, J. Garner, Tattenhall; second, J. Hornby, Minshull Vernon.

Best yearling gelding or filly for agricultural purposes.—First prize, C. Hollingshead, Minshull Vernon; second, J. Hornby.

Best brood mare for breeding hunters.—Prize, Stonetrough Colliery Company.

Best three-year-old colt for hunting purposes.—Prize, J. W. McGill, Sparrow-lane, Sandbach.

Best mare or gelding suitable for a hunter.—First prize, W. R. Court, Newton Manor, Middlewich; second, J. Poinons, Tiverton.

Mare or gelding who is the best performer as a hunter.—First prize, P. H. Taylor, Congleton; second, J. Gibbs, Worleston.

SHEEP.

Best longwoolled ram.—First and second prizes, R. Johnson, Kirkireton, Wirksworth.

Best shearing longwoolled ram.—First and second prizes, R. Johnson.

Best longwoolled tup lamb.—First prize, R. Johnson; second, R. Richardson, Sandbach.

Best three longwoolled ewes.—First prize, J. Cheers, Barrow; second, R. Johnson.

Best three longwoolled shearing ewes.—First prize, R. Richardson; second, R. Johnson.

Best three longwoolled ewe lambs.—First prize, S. Davies, Eardswick Hall; second, T. Richardson, Booth Lane, Sandbach.

Best shortwoolled ram.—First prize, T. Johnson, The Hermitage, Frodsham; second, T. Rigby, Over, Winsford.

Best shearing shortwoolled ram.—First prize, T. Johnson; second, R. O. Leycester, Toft.

Best shortwoolled tup lamb.—First prize, T. Johnson; second, S. Allen, Onston, Weaverham.

Best three shortwoolled ewes.—First prize, T. Johnson; second, J. Barker, Rushton.

Best three shortwoolled shearing ewes.—First prize, T. Johnson; second, R. O. Leycester, Toft.

Best three shortwoolled ewe lambs.—First prize, R. O.

Leycester, second, Sir P. de M. Grey Egerton, Oulton Park.

VEGETABLES AND SEEDS.

For the best sample of white wheat.—Prize, T. H. Hodson, Edleston Farm, Nantwich.

For the best sample of yellow or red wheat.—Prize, T. Rigby, Over.

Best sample of oats, any variety.—Prize, J. Robinson, Lee Green Hall, Middlewich.

Best sample of barley, any variety.—Prize, T. H. Hodson.

Best sample of beans, any variety.—Prize, S. Davis, Eardswick Hall.

Best six roots of turnips.—Prize, Colonel Cholmondeley.

Best six roots of mangolds.—Prize, T. Palmer, Tattenhall Laues.

Best sample of potatoes, of any kind.—Prize, J. Wright, Church Minshull.

IMPLEMENTS.

£10 given at the discretion of the judges for the best individual implements shown at the different stands: Richmond and Chandler, Saltford, Manchester, £1 10s., for chaff cutter; T. Bostock, Burslem, £1 10s., for Howard's self acting rake; Hancock and Foden, Sandbach, £1 for Ransomes and Sims' plough and four-horse engine; D. Harkes, Mere, £1 for double-furrow plough; G. Lewis, Hassall, Sandbach, 10s. for a mill; Messrs. Keyworth, 35, Tarleton-street, Liverpool, 10s. for double turnip scarifier, also £1 for sheep rack and corn crusher.

WOOL.

Best three fleeces of short wool.—Prize, T. Finchett, Rushton.

Best three fleeces of long wool.—First and second prizes, R. Richardson, Sandbach.

EAST CHESHIRE AGRICULTURAL SOCIETY.

MEETING AT MACCLESFIELD.

At the first annual exhibition of the East Cheshire Agricultural Society, the weather seriously marred the success of the show, a violent storm of wind and rain prevailing during the day. The Society has only been in existence a short time, and in its formation amalgamates a number of small local exhibitions in the division of the county in which it is established. A sum of £500 was offered in prizes, but this amount seemed to fail in securing an exhibition of stock at all commensurate with the district.

There were 267 premiums offered, but in a great number of instances, partly on account of the weather and partly owing to the fact of the great county show at Sandbach, which opened on Thursday, there was no competition. The samples of mangold wurtzel entered for competition in the class for the large red description were of extraordinary size and fulness. John McLuckie, Batley, received the first award out of competitors from Bollington, Edgeley, Eaton, and Handforth. For swede turnips Mr. Newcombe, Bollington, was first. The staple cheese and butter created an interest in the show-ground only exhibited at a Cheshire show, and the first prize was awarded to Mr. Robert Hyam, Snelsou, the second to Margaret Wood, dairymaid to Mr. E. Herford, Borris Hall. Four first premiums, awarded for cheese, were distributed as follows: Best specimen, not less than three shown, each 50lb. weight, Solomon Etchells, Batley; under 50lb. and not less than 30lb. in weight, William Weatherby, Siddington; for best three cheese, not less than 50lb., made in the present year, George Jackson, Old Withington; best three cheeses, under 50lb., made in the present year, Peter Robinson, Rainow. In the awards for grain, J. Faulkner, Oilerton, received first premium for four bushels of new white wheat grown this year; and S. Ridgway, Upton Hall, for red wheat.

A better show of cattle might reasonably have been expected in such a district. Including the open competition, and those confined to tenant farmers within the district, there were only 54 animals entered, and in many competitions the stock were of such a description, and the entries so few, that the judges withheld the awards. In the class for tenant farmers resident within the district the first prize for the best bull under three years was given to John Chetham, Norbury; Thomas Norbury, Mettram St. Andrew, second. For bulls under two years old, first Joseph Anderton, Gawsorth; second, J. Jackson, Handforth. The other awards were for bull calf, Allan Carswell, Batley; cow in-milk or in-calf, John Leather, Higher Bent House, Cheddle-Hulme; barren cow, John Chetham; cow or heifer, Captain T. W. Sykes, Cheddle; heifer in-calf or in-milk under three years, John Chetham; heifer under two years old, John Chetham. In the general competition, James Golden, Clay House Hall, Altrincham, received the first for aged bull; Daniel Ashbrook, Reddish, near Stockport, for the best cow; W. J. Legh, M.P., Lyme Park, two-year-old heifer; the same gentleman for the best

year-old heifer; best year-old bull, W. Jackson, Lyme, Handley; James Robinson, Rainow, for cows of any age in-milk or in-calf; Samuel Barlow, Rainow, for the best calf.

The horses as a class were not an exceptional show, those used for agricultural purposes predominating in point of number, although by no means numerous for such a district. Best brood mare, J. F. D'Arcy Wright; best three-year-old gelding or filly, John Millward, Sutton; and the other chief awards were as follows:—Two-year-old gelding or filly, W. C. Brocklehurst, M.P.; roadster mare, Richardson Andrew, Prestbury Hall; cob under 15 hands, H. S. Aspinwall, Macclesfield; pony, mare or gelding, James Dalziel, Batley. In the class for tenant farmers the awards were: Pair of horses for agricultural purposes, Thomas and Samuel Norbury, Chelford; mare or gelding, for agricultural purposes, S. Worthington, Woodford; brood mare for similar purposes J. and J. Hamson, Poynton; three-year-old gelding, S. Worthington; two-year-old ditto, F. Philips, Wilmslow; year-old, gelding or filly, W. Shaw, Gawsorth; weaning foal, J. and J. Hamson. In the general competition the premium for the best stallion was awarded to Thomas Standbank, Dunham, Massey, and for hunter mare, W. C. Brocklehurst, M.P. J. C. Rogerson, Manchester, took the premium for a pony not over 15 hands; Sykes and Co., Edgeley, for mare for draught purposes; and the Stoneclough Colliery Co., Lancaster, for the best pair of draught horses.

The prizes for sheep and pigs were by no means closely contested. There were 30 entries in the former, and in the latter about 25. Nathan Cotham, Norbury Hall, received the award for long-wooled ram; John Willott, Rainow, for tup lamb, pen of five long-wooled ewes, pen of ewe lambs, and pen of fat ewes; W. J. Legh, M.P., for short-wooled ram and shearing ram; the Rev. J. Thorneroff, fer tup lamb; John Wright, Walker's Heath, Gawsorth, for best pen of five year olds of the long-wooled breed; Enoch Clayton, Bosley, for pen of fat wethers; and J. F. D'Arcy Wright, Mottram Hall, for pen of short-wooled ewes and ewe lambs. For pigs Mrs. T. Mothershead, Sutton, received the first award for boars of the large breed; W. D. B. Davenport, M.P., for boars of the middle breed; Richardson Andrew, Prestbury Hall, for breeding sow of the large breed; J. Oliver, Ivy Lane, Macclesfield, for the best fat pig; and C. Bullock, Macclesfield, in the class for cottagers.

The principal premiums for implements were awarded as follows: Best stand of implements, Samuel Holland, Macclesfield; best stand of implements manufactured by the exhibitor, D. Harkes, Mere, Knutsford. Medals were awarded to J. Sinclair, London and Manchester, for chemical fire engine, and to Norton, Stockport, for patent filter.

At the annual dinner of the society, held in the Town Hall on Tuesday evening, the chair was occupied by Mr. W. C. Brocklehurst, M.P.

GLAMORGANSHIRE AGRICULTURAL SOCIETY.

MEETING AT COWBRIDGE.

The Agricultural Society of the county returned to its native place, after journeying in successive years to Cardiff and Neath. It originated in the Vale of Glamorgan near a century back. It held its meetings annually at Cowbridge for many following years, and after a short experience of migratory movement, successfully introduced three years ago, it has paid "the garden of Wales" another visit, and has proved by the result that "there is no place like home."

There were a hundred more entries than in any previous year. It is somewhat singular and certainly unusual, that the show was almost entirely confined to the county. There were no English competitors for any of the prizes, nor any entries sent in by farmers outside the limits of the county of Glamorgan. There was a slight falling off in the number of sheep, which may be accounted for by the badness of the season; but this was made up by the increase in the horses and cattle. There was a fine exhibition of Herefords, and the Shorthorn and cross-breed show was large. Some of the beasts, and particularly the bulls, were very fine, of good proportions, with plenty of flesh. Horses made the best display, and were, on the whole, good.

PRIZE LIST.

CATTLE.

HEREFORDS.

Best two cows, above three years old, in calf or in milk, and their offspring under twelve months old.—First prize, W. S. Powell, Eglwysnuyd, Taibach; second, W. S. Powell.

Best cow, above three years old, in calf or in milk.—First prize, W. S. Powell; second, W. S. Powell.

Best bull.—First prize, L. and H. Thomas, Tydraw, Cowbridge.

Best yearling bull.—Prize, W. S. Powell.

Best two-year-old heifer, in calf or in milk, for breeding purposes.—First and second prizes, W. S. Powell.

Best yearling heifer for breeding purposes.—First prize, T. Thomas, St. Hilary, Cowbridge; second, W. S. Powell.

SHORTHORNS.

Best two cows, above three years old, in calf or in milk, and their offspring under twelve months old.—First prize, J. Garsed, The Moorlands, Lantwit Major (Blanche); second, D. Owen, Ash Hall, Cowbridge (Fancy).

Best cow, above three years old, in calf or in milk.—First prize, T. Dalton, Cardiff; second, A. Watts, Coity.

Best bull.—First prize, D. Owen; second, J. H. Harding, Cardiff.

Best yearling bull.—Prize, A. Watts.

Best two-year-old heifer, in calf or in milk for breeding purposes.—First prize, J. M. Harding, Hill Earm, Swansea (Queen of the Ocean); second, J. M. Harding (Emblem).

Best yearling heifer, for breeding purposes.—First prize, D. Owen; second, J. Bruce Pryce, the Duffryn, St. Nicholas.

OTHER PURE OR CROSS-BREDS.

Best two milking cows, three years old.—First prize, W. Prichard, Bryntririon, Bridgend; second, A. Watts.

Best milking cow, above three years old.—First prize, J. Thomas, Lisworney.

Best pair of yearling steers.—Prize, W. S. Powell.

Best bull calf, of any pure breed.—First prize, T. Thomas; second, W. S. Powell.

Best heifer calf of any pure breed.—First prize, J. Williams, Llantrithyd (Fancy); second, T. Thomas.

Best bull, cow in calf or in milk, and their offspring under twelve months old, of any pure breed.—First prize, Major T. Picton Tuberville, Ewenny Abbey, Bridgend; second, W. S. Powell.

EXTRA STOCK.

Highly commended, J. Williams, Llantrithyd.

SHEEP.

LONG-WOOL.

Best yearling ram.—First prize, C. Spencer, Gileston, near Cowbridge; second, W. Donne, Monkton, near Bridgend.

Best ram lamb.—First prize, J. Williams, Caercady, Cowbridge; second, W. Donne.

Best five ewe lambs, for breeding purposes.—First prize, T. Thomas; second, J. Williams.

Best five wether lambs.—Prize, J. Williams.

Best five ewes exceeding three years old that have bred the preceding year.—First prize, J. Williams.

SHORT-WOOL.

Best yearling ram.—First prize, Morgan Rees, Garth Farm, Swansea.

Best ram lamb.—First prize, M. Rees.

Best five ewe lambs for breeding purposes.—First prize, M. Rees; second, J. B. Pryce.

Best five ewes, exceeding three years old, that have bred the preceding season.—Prize, M. Rees.

CROSS-BRED.

Best yearling ram.—First prize, J. Williams, Red Farm, Penlline.

Best five yearling ewes.—First prize, Howell Harrys, Crofta, Ystradowen.

Best pen of four breeding ewes and one ram, of Welsh mountain breed.—Prize, H. Harrys.

Best pen of five mountain wethers bred in the county.—Prize, H. Harrys.

Best pen of five yearling ewes of any pure breed.—First prize, J. Williams (long-wool); second, C. Spencer (long-wool).

Best aged ram of any breed.—Prize, J. Williams (long-wool).

WOOL.

For the best ten long-wool fleeces, the clip of 1870, from sheep bred by the exhibitor in the county of Glamorgan.—Prize, C. Spencer.

Best ten short-wool or cross-bred fleeces, the clip of 1870.—Prize, W. S. Powell.

PIGS.

Best sow, with pigs or in farrow, of any large breed.—Prize, J. Thomas, East Field House, Cowbridge.

Best sow with pigs or in farrow, of any small breed.—Prize, W. Harding, Cowbridge Mills.

Best boar of any large breed.—Prize, J. B. Pryce.

Best boar of any small breed.—Prize, T. B. Rees, Llandaff.

Best boar under a year old.—Prize, T. V. Reece, Llandaff.

Best pair of sows under a year old.—Prize, E. Thomas, Goldsland, Wenvoe.

HORSES.

Best cart stallion, which shall cover in the county during the season of 1871.—Prize, T. Earl, St. Mary Hill, Bridgend.

Best mare and foal for the general purposes of husbandry.—Prize, R. Thomas, Aberavon, near Taibach.

Best two-year-old gelding or mare for the general purposes of husbandry.—Prize, A. Watts.

Best yearling colt or filly, for the general purposes of husbandry.—Prize, R. Thomas, Upper Court, Taibach.

HUNTERS.

Thoroughbred stallion, calculated to produce weight-carrying hunters, to cover in the county for the season of 1871 at £10.—First prize, D. Earl, Cross Inn, Whitchurch, near Cardiff (Loyola, by Surplice, dam Latitude by Langar). Highly commended: D. Earl.

Brood mare, calculated to produce weight-carrying hunters, and covered by a thoroughbred horse for a weight-carrying hunter.—Prize, M. Williams, Aberpergwm.

Two-year-old gelding or mare, got by a thoroughbred horse, for a weight-carrying hunter.—Prize, L. and H. Thomas, Tydraw, near Cowbridge.

Yearling colt or filly, got by a thoroughbred horse for a weight-carrying hunter.—Prize, L. Jenkins, Tynucaia, St. Mary-hill.

Hackney gelding or mare, between 14 and 15 hands high.—Prize, W. Davis, The Meadows, Bridgend (Matchless).

Cob between 13 and 14 hands high.—Prize, Captain J. S. Ballard, The Verlands, Cowbridge.

Pony not exceeding 13 hands high.—Prize, Major T. Picton Turbervill.

Pair of cart-horses, for the general purposes of husbandry.—First prize, R. Williams, Parkuewydd, Pyle; second, D. Oweu, Ash Hall, Cowbridge.

Four-year-old hunter, up to at least 12 stone with hounds, the property of the exhibitor, who must be a tenant farmer in the county of Glamorgan, occupying 50 acres or upwards of land, open to non-subscribers £10 10s.—Prize, C. Spencer.

Weight-carrying hunter got by a thoroughbred horse, up to at least 14 stone with hounds.—First prize, Captain J. S. Ballard; second, Captain J. S. Ballard.

Light-weight hunter, got by a thoroughbred horse.—First prize, Rev. C. Stacey, Whitechurch, near Cardiff; second, J. Davies, Ely Mills, Cardiff.

Four-year-old colt or filly, for harness purposes, not under 15½ hands high, bred in the county of Glamorgan.—Prize, J. Williams, Red Farm.

DAIRY PRODUCE.

Best lot of cheese not less than 1 cwt.—First prize, T. Culverwell, Llwynhelig, Cowbridge; second, T. Culverwell; third, J. Williams.

Best lot of fresh butter in pounds, not less than ten.—First prize, J. David, Stembridge, near Cowbridge; second, J. Jones, Old Beaupre, Cowbridge; third, J. David.

Best cwt. of thin cheese, made in the county of Glamorgan.—Prize, T. Culverwell.

FRODSHAM CENTRAL FARMERS' CLUB.

The Frodsham Central Farmers' Club may be looked upon as the resuscitation of the Daresbury and Frodsham Farmers' Club, which, like many agricultural societies, collapsed when the cattle plague appeared. But the new Society has considerably extended the area of its operations, and bids fair to achieve much greater success than the old one could have ever hoped for. Proof of that was now given, but, as was the case last year, the success was not so great as was anticipated, as one very necessary element, fine weather, was again wanting. The show, as a whole, was unquestionably in advance of the last, and, despite the weather, may be looked upon as a success. The entries, excepting those of sheep and roots and corn, were in excess of last year, and the competition was consequently keener. The cheese was very good and pretty ripe; a lot of uncoloured was but poor, while the best was that taking the Marquis of Cholmondeley's prize, given to cheese made in a dairy where Sunday labour is entirely dispensed with. Of the butter we defer to the judges as to the first and second best, but the remainder had that fault common to Cheshire, too much salt. Some of the stock was very good, but this does not apply to all the classes, as it will be seen there was only a few young things shown. Of horses there was a fair show.

The judges were:

R. Broady, Manchester.	J. Griffiths, Hawarden.
- Dickenson, Upholland.	G. Jackson, Tattenhall.
Hugh Doran, Stretford.	J. Lowe, Prescott.
- Dutton, Stanthorne.	T. Rigby, Over.

PRIZE LIST.

CATTLE.

Best bull of any breed most suitable for dairy purposes under four years old.—First prize, J. W. Antrobus, Stockham; second, T. Moreton.

Best bull under two years old.—First prize, W. Darbyshire, Grappenhall; second, J. Hewitt, Norton.

Best pair of dairy cows, any breed.—First prize, W. Wilkinson, Dutton; second, J. Hewitt.

Best pair of heifers under three years old.—First prize, W. Wilkinson; second, J. Hewitt.

Best pair of heifers under two years old.—First prize, J. Hewitt; second (divided), P. Priestner, Peel Hall.

Best pair of heifer calves.—Prize, J. Hewitt.

Best bull of any age.—Prize, J. Percival, Godscroft.

Best Bull under two years old.—Prize, S. Allen, Onston.

Best dairy cow of any breed.—First prize, J. Swinton, Run-corn; second, J. Weir, Lower Walton.

Best heifer under three years old.—First prize, J. Weir; second, J. Reynolds, Frodsham.

Best heifer under two years old.—First prize, J. Highfield, Frandley House, Seven Oaks; second, T. Ditchfield, Run-corn.

Best pair of heifer calves.—First prize, W. Burgess, Stockham; second, J. Wright, Helsby.

Best bull most suitable for dairy purposes under four years old.—First and second prizes, J. Hewitt.

Best pair of dairy cows.—First and second prizes, J. Parr, Hatton.

Best pair of heifers under three years old.—First prize, J. Higson; second, J. Hewitt.

Best pair of heifers under two years old.—Prize, J. Hewitt.

HORSES.

Best stallion of the cart or waggon kind.—Prize, P. Leather, Stretton.

Best team of cart horses with or without gears.—S. Lees, Newton-by-Darcsbury; second, T. Johnson, Runcorn.

Best agricultural horse, mare, or gelding.—First prize, J. Pover, Elton Hall; second, P. Leather, Stretton.

Best brood mare of the cart breed.—First prize, S. Mort, Frodsham; second, S. Littler, Trafford.

Best gelding or filly under three years old.—First prize, J. Pover, Elton Hall; second, M. Ravenscroft, Kingsley.

Best gelding or filly under two years old.—Prize, S. Mort.

Best weaning colt.—First prize, T. Ditchfield, Runcorn; second, R. Nicholson, Chester.

HUNTERS.

Best brood mare suitable for breeding hunters.—Prize, J. Higson, Frodsham.

Best hunter of any age up to 14 stone.—First prize (silver cup), J. H. Hayes, Frodsham; second, W. K. Weaver, Chester.

Best hunter of any age, light weight.—First prize (silver cup), R. Ashton, Five Crosses; second, T. Lowe, Old Pale.

Best three or four-year-old gelding or filly best adapted for making a hunter.—Prize, J. Cossins, Blue Cap Cottage, Sandway.

PIGS.

Best boar of any breed most suitable for farmers' purposes.—First prize, W. Darbyshire, Grappenhall; second, A. Lockwood, Chester.

Best breeding sow suitable for farmers' purposes.—First prize, J. Hewitt, Norton; second, A. Stretch, Riley Bank.

For the best fat pig belonging to any cottager in the district.—First and second prizes, T. Berrington, Overton; third, R. Trelfall, Frodsham; fourth, T. Woodward, Overton.

SHEEP.

LONG-WOOLLED.

Best long-woolled ram of any age most suitable for the district.—First prize, J. Cheers, Barrow; second, J. Parr, Hatton.

Best shearing ram, as above.—First and second prizes, J. Cheers.

Best tup lamb of any age.—First prize, J. Sheen, Eddisbury; second, J. Cheers.

Best pen of three ewes of any age.—First and second prizes, J. Cheers.

Best pen of three shearing ewes.—First prize, J. Parr, Hatton; second, J. Cheers.

Best three ewe lambs.—First prize, J. Parr; second, J. Cheers.

SHORT-WOOLLED.

Best short-woolled ram of any age.—Prize, T. Johnson, Hermitage.

Best shearing ram.—First prize, T. Johnson; second, J. Lloyd, Trafford.

Best tup lamb.—First prize, S. Allen, Onston; second, T. Johnson.

Best pen of three ewes.—First prize, T. Johnson; second, G. Lloyd.

Best pen of three shearling ewes.—Prize, T. Johnson.

Best three ewe lambs.—Prize, T. Johnson.

CHEESE

(Prizes open to the county of Chester)

Best three cheeses where Sunday labour is entirely dispensed with.—Prize, W. Reece, Ashton Hall Chester.

Best three cheeses.—First prize, J. Robinson, Ernslow Grange; second, J. Pover.

Best three cheeses.—First prize, T. Golborne, Willington; second, J. Drinkwater, Seven Oaks.

BUTTER.

For the best basket of butter (six 1 lb. prints).—First prize, J. Parry, Bridge End Farm; second, J. Andrews, Frodsham; third, T. Booth, Wheatwood-cottage, near Tarporley; fourth, T. Horton, Frodsham.

ROOTS.

Best six roots of common turnips.—Prize, J. Higson, Frodsham.

Best six roots of Swedish turnips.—Prize, J. Higson.

Best six roots of mangold-wurzel.—Prize, J. Higson.

Best three Scotch cabbages.—Prize, W. Weir, Norton.

SEED CORN.

Best sample of white seed wheat.—Prize, T. Wright, Woodhouses.

Best sample of yellow or red wheat.—Prize, J. Wright, Helsby.

Best sample of white seed oats.—Prize, J. Swinton, Run-corn.

Best sample of yellow seed oats.—Prize, E. Dodd, Mouldsworth.

Best sample of black seed oats.—Prize, J. H. Hayes, Frodsham.

AGRICULTURAL IMPLEMENTS.

Selection of agricultural implements suitable for use in the district.—First prize, J. and H. Keyworth and Co., Chester; second, W. Watkin and Son, Halton; third, J. W. Rothwell, Frodsham.

ROYAL AND CENTRAL BUCKS AGRICULTURAL ASSOCIATION.

MEETING AT AYLESBURY.

The ploughing took place on the farm of Mr. T. W. Morris, of Bedgrove, about a mile from the town, where some exceedingly good work was done. The stock show was not so large as on some other occasions.

JUDGES.

PLOUGHING.—E. Freeman, Chilton; J. H. Guy, Whitchurch.

HORSES.—J. Manning, Oringbury; J. K. Elliott, Heathen-cote, Towcester.

CATTLE.—M. Savidge, Sarsden Lodge Farm, Chipping Norton; C. Howard, Biddenham, Bedford.

SHEEP.—M. Druce, Burghfield, Reading; A. Smith, Somerton, Bicester.

BUTTER.—A. J. P. Stevens, Metropolitan Meat Market, London.

ROOT CROPS AND ROOTS IN THE SHOW YARD.—J. Treadwell, Winchendon; C. Elliott, Hulcott; E. Denchfield, Burston.

POULTRY.—E. Hewitt, Eden Cottage, Sparkbrook, Birmingham.

PRIZE LIST.

HORSES.

Geldings, three years old and upwards.—First prize, £5, and second, £2, Z. W. Stilgoe, Adderbury, Bambury.

Geldings, under three years, for tenant farmers only.—First prize, £5, and second, £2, J. Hughes, Waddon Hill, Stone.

Mares, three years old and upwards.—First prize, £5 5s., W. Rose; second, £2, J. P. Terry, Putlowes, Aylesbury.

Mare and foal (the foal dropped in 1870), for tenant farmers only.—First prize, £5 5s., E. M. M. Lucas; second, £2, J. and E. Denchfield.

Mares under three years, for tenant farmers only.—Prize, £5 5s., J. and E. Denchfield.

Horses or mares for hunting purposes, for tenant farmers only.—First prize, £7 7s., G. A. Lepper, Aylesbury; second, £3 3s., F. W. Thorpe, Berryfield.

Nag geldings and mares, for riding and general purposes.—First prize, £5 5s., J. Hughes; second, £2, H. Gurney, jun., Aylesbury.

Best yearling nag colt.—Prize, silver cup, E. Clift, Weedon.

CATTLE.

Bulls, any breed, two years old and upwards.—First prize, £5 5s., J. Upson, Rivenhall, Witham, Essex; second, £2, W. S. Jessop, Dorton Camp.

Bulls under two years.—First prize, £5 5s., J. A. Mumford, Chilton Park Farm; second, £2, J. K. Fowler.

Cows, in milk or in calf.—First prize, £5 5s., C. A. Barnes, Chorley Wood, Rickmansworth; second, £2, J. A. Mumford.

Three cows, in milk or in calf, for tenant farmers only.—First prize, £10 10s., and second, £5 5s., J. and E. Denchfield. Heifers, in milk or in calf, under three and over two years.—First prize, £5 5s., and second, £2, J. A. Mumford.

Heifers, in pairs, under two years.—First prize, £5 5s., J. and E. Denchfield; second, £2, G. Underwood, Little Gadsden.

Fat cows.—First prize, £5 5s., T. L. Senior, Broughton; second, £2, J. A. Mumford.

Best animal exhibited in the classes of horned stock.—Prize, £5 5s., J. Upson.

SHEEP.

Rams, any breed.—First prize, £5 5s., J. Longland, Grendon; second, £2, Lord Chesham.

Five store ewe lambs, for breeding purposes.—First prize, £5 5s., Lord Chesham; second, £2, T. Kingsley, Boarscraft, Tring.

Five fat ewes, any breed or age.—First prize, £5 5s., J. Treadwell, Winchendon; second, £2, Lord Chesham.

Five fat wethers.—First prize, £5 5s., Lord Chesham; second, £2, Z. W. Stilgoe, Adderbury.

Five long-woolled ewes, intended for breeding purposes.—Prize, £5 5s., J. Godwin, Troy Farm, Bicester.

Five Down or cross-bred ewes, intended for breeding purposes.—First prize, £5 5s., J. Treadwell; second, £2, R. Fowler.

Five shropshire ewes, intended for breeding purposes.—First prize, £5 5s., R. Fowler; second, £2, E. Baylis, Hogstone.

Five theives, any breed, intended for breeding purposes.—First prize, £5 5s., Lord Chesham; second, £2, J. Treadwell.

Best pen of breeding ewes or theives in the yard.—Prize, £5 5s., Lord Chesham.

Best pen of fat sheep.—Prize, £3, Lord Chesham.

PIGS.

Boars, any breed.—First prize, £3 3s., J. Wheeler, Long Compton; second, £2, E. C. Clarke, Haddenham.

Sows, any breed, either in pig or with litter, for tenant farmers only.—First prize, £5 5s., J. and E. Denchfield; second, £2, J. Treadwell.

Three fat pigs.—First prize, £3 3s., W. Cooper, Winchendon; second, £2, C. Elliott, Hulcott.

PLOUGHING.

For ploughing half an acre of land in four hours.—First prize, £2, to the ploughman of A. Tindal, Aylesbury; second

prize, £1, to the ploughman of Messrs. Ransomes, Sims, and Head, Ipswich.

BUTTER.

For 12lbs. of butter, in 2lb. lumps.—First prize, £3, J. F. Perkins; second, £2, T. Matthews, Waddesdon; third, £1, A. Roads, Rowsham.

ROOTS.

For the best crop of mangold wurtzel of not less than five acres, the whole of the mangolds on the farm to be taken into consideration, for tenant farmers only.—Prize, £10 10s., E. Freeman, Chilton, Thame.

For the best crop of swedes of not less than six acres, the whole of the swedes on the farm to be taken into consideration, for tenant farmers only.—Prize, £10 10s., T. Clarke, Ellesborough, Tring.

For the best collection of roots.—First prize, £5 5s., J. K. Fowler, Aylesbury; second, J. and E. Denchfield, Barston.

For the best 25 mangolds, taken from a piece of not less than two acres.—First prize, £2, E. M. Lucas, Rowsham; second, £1, R. Fowler.

For the best 12 purple-topped swedes, (untrimmed), taken from a piece of not less than two acres.—First prize, £1, T. Clarke; second, 10s., J. H. Guy, Whitechurch.

LEICESTERS AND OTHER LONGWOOLS.

SCENE.—An office in Dublin.

Gammon.—Now tell me, Mr. Sheepshanks, what I am seriously about to ask you. How many pure breeds of long-woolled sheep does England now really produce?

Sheep.—Two: The Dorsets and other Horns excepted.

Gam.—Is that all?

Sheep.—I believe so.

Gam.—And what are they?

Sheep.—Leicesters and Cotswolds.

Gam.—You amaze me; first in regard to Leicesters, your opinion is that there is only one kind of thorough-bred?

Sheep.—Most assuredly the *Leicester* is as unmistakable as the Arabian horse. Any other *Leicester* partakes rather of the Arabian Nights, or if you will, of that figure in rhetoric under which your profession is recognised.

Gam.—You believe then that Border Leicester, Yorkshire Leicester, and Improved Leicester—

Sheep.—Are mere terms of huxtering clap-trap; heard for the first time, and soon—if she disapproves being laughed at—to be heard for the last time in Ireland.

Gam.—Are you acquainted with the soil and climate of this country, Mr. Sheepshanks?

Sheep.—Partly.

Gam.—And what do you think of them?

Sheep.—Why, that the southern and western provinces are both equal to any in the three kingdoms for the production of wool and mutton.

Gam.—You think, then, that what the eloquent and refined Carlisle termed the “weeping skies”—

Sheep.—Will do no harm whatever to the sheep they weep on, if you only put, as we do, something inside ‘em.

Gam.—Good. My next inquiry will be: Are you acquainted with our native breeds of sheep?

Sheep.—I am.

Gam.—Tell me your belief in them.

Sheep.—I believe in the wise arrangements of Providence, and in the instincts of ages thus far: that every spot of earth upon which we find a race of animals showing healthy constitutions, and a high quality of food, that upon that race should its future dynasty be founded.

Gam.—Then you would not attempt the pure breeding of either of the two distinctions you refer to in Ireland?

Sheep.—Most certainly not.

Gam.—And which would you prefer to cross with?

Sheep.—You don’t ask that question seriously, do you?

Gam.—Why not seriously?

Sheep.—Because the whole sheep-breeding community have already answered it.

Gam.—I understand; but do you say that you have only two distinct breeds of long-woolled sheep in Great Britain?

Sheep.—No: I did not say that.

Gam.—What then did you say?

Sheep.—I said we had only two pure breeds.

Gam.—How about the Lincoln?

Sheep.—The Lincoln has a distinction, and a high one, but he cannot be said to be pure, inasmuch as he owes it all to what Mr. Partner calls the visits of the Leicester.

Gam.—Is that a fact?

Sheep.—Yes. You may lay all Ireland upon it, and throw Connaught in for luck; and, what is more, you may make the

same bet upon every improved breed of long wools in England, Ireland, and Scotland.

Gam.—That is, indeed, saying a great deal for the Leicester, but how do you account, under it, for the enormous high rates obtained for the Lincoln sires?

Sheep.—Where the first judges of England, and from all parts of England, are the handicappers, I have great faith in figures, and the weight they have, by general consent, put upon the Lincoln arises, I opine, from two causes: first, it appears to have been a cross peculiarly happy in its results, and then, again, it has been so skilfully and carefully managed by the Lincoln breeders, that they have succeeded in imparting shape and touch, which they had not, without destroying that which they had, and were always for wool and size, and which now give them a position above all other cross-breeds.

Gam.—What is your opinion, Mr. Sheepshanks, of the Cotswold, as a general sire?

Sheep.—He is a noble specimen of his race, but he has not been successful as a sire out of his own class and district.

Gam.—I think I understood you to say that you would not recommend pure breeding, or close breeding, even of Leicesters in Ireland?

Sheep.—No, nor of any other foreign importation.

Gam.—Why?

Sheep.—Because it has been tried in almost every country, and in almost every country it has failed.

Gam.—Do you say so?

Sheep.—Yes; and, in the case of the Leicester, failed to a degree that alone gives the lie to these impudent pretensions of the Border gentleman.

Gam.—How?

Sheep.—How? Why, in every case where the pure breeding of the Leicester has been attempted, and a fertile genius, and an equally fertile soil and climate, brought to assist the art, he has, in spite of all, grown gradually less; but if this northern story is to be accepted, he has there, in his purity, grown more strong and large.

Gam.—What nature, then, do you assign to this Border Leicester?

Sheep.—Call him, if you please, by the name that he is known on his own side the Channel.

Gam.—And what is that?

Sheep.—The Border sheep.

Gam.—Well, then, this Border sheep?

Sheep.—If he has any nationality at all, he is a Cheviot.

Gam.—And how does that appear?

Sheep.—Because his grandmother, with the fifty G.’s before her, was a Cheviot, and if he disowns that respectable old lady in short petticoats, he is a mob.

Gam.—You amuse me.

Sheep.—Do I? You have plenty of amusement in Ireland, if it amuses you to find an animal who forgets who his grandmother was.

Gam.—Good, Mr. Sheepshanks, very good. I like your humour. Let me now inquire of you about Leicester No. 3, brought here as Yorkshire Leicesters.

Sheep.—Yorkshire, Mr. Gammon, stands very high in its eminence as a sheep-breeding county, and in it are Leicester breeders of the first position, at the head of which, I believe,

stands Mr. Borton, the winner of so many prizes at the Royal Society of England. There are also in it some good men, who carry out the plan of the Lincoln breeders on the reverse principle.

Gam.—That is, by adopting a Lincoln?

Sheep.—Precisely.

Gam.—And with what results?

Sheep.—The same happy ones that have succeeded the reverse cross; they keep what they always had from the dam—*shape and touch*, and get what they had not—*wool and size*. They seem, in fact, two families made for each other.

Gam.—At any rate, from your observations I gather that there is really little difference between a Lincoln and a Yorkshire Leicester.

Sheep.—Very little in some of the families, but I must not omit stating that all are not Yorkshire Leicesters which are bred in Yorkshire, and sheep have been quacked upon the breeders of this country as Leicesters and Yorkshire Leicesters, whose dams had no distinction whatever, and whose sires were third-rate Cotswolds.

Gam.—Is it possible?

Sheep.—I'll vouch for it. Yorkshire is still Yorkshire, and to deal with her you must be "Yorkshire too."

Gam.—But how can men of moderate judgment, or we will say with no judgment, escape these quackeries, as you call them, and avoid buying a bad animal?

Sheep.—Just as I avoid buying a bad hat. I know nothing of the hat, but I take care to know something of the hatter.

Gam.—Very good. A sound maxim to be sure.

Sheep.—The chief opportunity for these quacks arises out of the absence of that registry of animals which the herd-book furnishes in the case of shorthorns. You have no pedigrees of sheep, and, therefore, you should as in all such cases look to the breeding character of the men, and never act without that caution.

Gam.—But is this easy to get at?

Sheep.—Nothing easier, for, like the shorthorn productions,

the best blood is in comparatively few hands, and it would be easy to obtain the names of all of them, and confine yourselves to those and their next of kin. This plan would in fact be the foundation of a sheep herd-book.

Gam.—And how would you commence a unity of action to carry out a plan of this kind?

Sheep.—By the formation of a Society somewhat resembling the Turf Club, and confining your purchases of sires to its members, who, to establish a character for their flocks, should produce their pedigree, and pay a heavy penalty for a false one, or be dismissed the club.

Gam.—And do you think such a Society would take in Ireland?

Sheep.—Not a doubt about it, if it was established on a sound foundation, and tied together with something more substantial and something more useful than "red tape."

Gam.—Very good. And now about Leicester No. 4, the Improved Leicester.

Sheep.—"Improved" is a word in which there is great virtue, and may be made to mean anything or nothing. If there is any such animal at all, he is to be found in the lot last described, and you may give the title if you like to the Border sheep, it you prove by experience that his connexion with the Cheviot justifies it. It is a term hard to dispute when claimed by sportsmen for the cross of a greyhound with a bull-dog.

Gam.—Then, if I understand you, Mr. Sheepshanks, the sheep known as the English Leicester —

Sheep.—Is the only true Leicester.

Gam.—The Border?

Sheep.—A Cheviot bred in and in to the Leicester.

Gam.—The Lincoln?

Sheep.—Still a Lincoln improved by the Leicester.

Gam.—The Yorkshire Leicester?

Sheep.—Still a Leicester enlarged by a Lincoln.

—From a Pamphlet by Mr. Francis Page, of Thurles, on "The Quackeries of Sheep-breeders."

SALE OF THE REV. T. STANFORTH'S SHORTHORNS.

AT STOURS FARM, WINDERMERE.

ON TUESDAY, SEPT. 13, 1870, BY JOHN THORNTON.

Notwithstanding a very wet day a large company of between four and five hundred people assembled at this the second of the Stours draft sale. A luncheon in the barn preceded the business, Captain Gundy occupying the chair. After the Royal and usual toasts the company adjourned to the ring, situated in a fine grass field on the edge of the lake. The stock were brought out in a highly creditable manner by Mr. Robert Smith, the farm steward, whose own family history can be traced to Jacob Smith's bull (308), that is said to have been owned by his grandfather. The cattle were truthfully called drafts; but, as Mr. Thornton remarked on opening the sale, the best might be picked from some herds and be found no better than those he would bring before them. Claribel, bred by Mr. Carr, and a pure Booth cow, had caused many inquiries, but her slip in 1868 had resulted in barrenness, and she had never been in season for a year; as a fat beast she was worth three or four pounds more than the 29s. Culshaw gave for her. What the Townley pastures may do remains to be seen; but the purchase of a pure Booth cow, after the Bates combinations and the Oxford dynasty at Townley, is quite reminiscent of old times when Jeweller and Jasper flourished. Frederick's Pride, a purchase by Mr. Drewy at Townley, in '64, was in full health and breeding, being far advanced in calf to Peer of the Realm. There was comparatively little competition for her, and she returns at 62s. to her old home at 18s. cheaper, and five years older, than she left it. Graceful was of the Studley and Farnley Medora tribe, and several were of the same strain, although a plain beast, she was a regular breeder and a great milker. Mr. Meadows, who had been wandering in the Lake-district, takes her to Ireland at 39s. Ringlet was a fine cow, and out of a grand-daughter of Mr. S. Owen's Ruby, that gave thirty quarts a day. Mr. Swarbrick, after biddings from various quarters, got her at 65s., and also bought two

other good lots, Lady Grace at 56s., and Gaiety at 53s. Music and Musical (47s.) were of the Gwynne tribe, and from a purchase at Holker. Music was a fine roan cow with plenty of hair, and, after frequent "pennys" from the county men, she fell to Mr. Drewy for the Duke of Devonshire at 70s. Mr. R. Jefferson got a cheap cow, down calving to Mr. Booth's High Sheriff, in Swiss at 40s., and it was rumoured that next year will see a fine lot to be brought into the ring at Preston Hows. Sprightly, an advanced yearling, very level and full of hair, took Mr. Henry Smith's fancy, late of Durham, and he bought her at 38s. for the Ushaw College, Durham.

The first bull, Double Foggathorpe, seemed to want more middle and substance, but he had been among the heifers, which accounted for his lean state. A local man took him at 33s. The next, Sunshine, was of a rich colour and great depth, and a young bull of some promise. Mr. Smith also bought him for Ushaw College at 40s.

At the conclusion of the sale of the Shorthorns Mr. Kirkby sold the Cumberland heifers, which showed much breeding and quality, and the trade was very good for them. The company inspected the cows of the herd, and also High Sheriff, from Warlay, a young creamy-white bull of great elegance and quality, but the wet day was much against their appearance.

SUMMARY.			
21 cows averaged	43 14 0	equal to	917 14 0
4 bulls	" 35 3 6	"	140 14 0
—	25	"	£42 6 8
		"	£1,058 8 0

The Cumberland heifers, several of which were in calf, sold well at prices varying from 14 to 19 guineas each, the 20 averaging just over £17.

SHEEP SALES AND LETTINGS.

THE PANTON RAMS.—The varied and well-defined merits of Mr. H. Dudding's sheep attracted a large and influential company, which included the principal ram breeders of the county. The auctioneer was Mr. Calthrop, and the following is the result of the sale:

SHEARLINGS.—LET.		£	s.			£	s.
Mr. J. L. Needham, Hut-	toft...	30	0	Mr. Borman, Swallow...	10	10	0
Mr. Ealand, Skelling-	thorpe ...	16	0	Coates ...	10	10	0
Mr. Kemp, Baumber ...	17	0	Bett, Alviingham ...	9	10	0	0
Mr. Clarke, Ashby ...	32	0	Coates ...	8	0	0	0
SOLD.				Swallow ...	9	0	0
Mr. Frankish, Kirming-	ton ...	9	10	Coates ...	9	0	0
Mr. Holiday ...	20	0	Boynton ...	27	0	0	0
Thompson ...	16	0	Frearson, Bonni-	worth ...	11	0	0
Howard, Temple	Bruer ...	12	10	Mr. Epton, Langton ...	11	0	0
Mr. Love ...	11	0	Tateson ...	12	10	0	0
Garfit ...	20	0	Searby, Strubby ...	10	0	0	0
Everard ...	13	0	Frankish ...	9	10	0	0
Hargrave, Nor-	manby ...	15	10	Richardson ...	10	0	0
Mr. Brocklesby ...	15	0	Ashton ...	8	0	0	0
G. Walker, Bigsby	Foster ...	13	0	Ashton ...	10	10	0
Walker, Bigsby ...	13	0	Sharpley, Althorpe	13	10	0	0
Bramley ...	16	0	Crom, Flamboro' ...	11	0	0	0
Swallow ...	11	10	Pears, Hackthorne	12	0	0	0
Borman, Swallow...	11	10	Nelson, Wyham ...	9	0	0	0
McVicar ...	14	0	McVicar ...	10	10	0	0
Williams, Ashby ...	11	10	Hewitt ...	6	10	0	0
Clarke ...	11	0	Adams ...	7	0	0	0
Epton ...	10	0	Turner ...	7	0	0	0
Empson ...	10	10	Borman ...	12	0	0	0
Dawson ...	12	0	Borman ...	9	10	0	0
Swallow ...	10	0	Bett ...	11	0	0	0
Mackinder ...	12	10	Dudding, Saxby	6	10	0	0
Nelson, Wyham ...	12	10	Coates ...	10	0	0	0
Ashton ...	10	10	Mason ...	9	0	0	0
Nelson, Wyham ...	10	0	Thompson ...	7	0	0	0
Hewett, Ludford ...	9	10	Roberts ...	9	0	0	0
Borman, Swallow...	9	10	Searby ...	8	10	0	0
Nelson, Wyham ...	10	0	Frankish ...	8	0	0	0
McVicar ...	10	10	Dudding ...	7	0	0	0
Adams, Ludford ...	10	10	TWO SHEEPS.—LET.				
Tateson ...	13	0	Mr. Boynton ...	18	0	0	0
Lacey, Panton ...	10	0	Kemp, Thurlby ...	51	0	0	0
Ashton ...	9	10	Garfit, Seothern ...	32	0	0	0
Mackinder ...	12	10	J. L. Needham,	Huttoft ...	35	0	0
Coates ...	8	0	Mr. Williams, Carlton-	le-Moorland ...	21	0	0
Kemp, Thurlby ...	23	0	Mr. Smith ...	12	0	0	0
Frudd, Dorrington	10	10	Stevenson ...	8	0	0	0
			Coates ...	8	10	0	0
			Stevenson ...	8	10	0	0
			Brocklesby ...	10	10	0	0

THE BISCATHORPE LINCOLNS.—At the letting at Mr. Thomas Kirkham's ram show, there was a very large attendance of ram breeders and sheep farmers from all parts of England, and several foreign breeders. Sixty shearling rams were let by auction, and averaged £13 7s. 6d. each. The highest price—£42—was given to Mr. H. Mackinder, of Langton. The two-shear rams (33 in number) were let at prices ranging from £7 to £40, Mr. Needham, of Huttoft, giving the latter price; the average of these pens was £11 9s. 5d. The three-shear and upwards realized prices varying from £5 10s. to £28, producing a net average of £8 2s. 9d. There were several Yorkshire breeders at the letting. One hundred and twenty rams were let, and the breeder has sustained the reputation of previous years, this being his 30th season.

MR. C. R. KEELING'S SHROPSHIRE.—The Yew Tree flock, though not of long standing, was originally founded on an admixture of animals obtained from Mr. W. Masfen, of Norton Canes, and the Shipley and Harley flocks. There was a numerous company assembled, Mr. Horley presiding at the luncheon, and competition for the rams was brisk. Prices ranged from 5½ to 50 gs., the latter sum being paid by Mr. Evans for the hire of Royalty, a son of Cardinal from a Competition ewe. No. 2 was reserved for showing at Kidderminster and Walsall, but realized 14 gs. for the season to Mr. Fellows. A very useful two-shear, bred by Mr. W. Masfen, went cheaply at 11 gs.; as also another two-shear, which Mr. R. H. Masfen obtained at 15 gs. The ewes ranged from 100s,

for one pen down to 50s.; another pen making 90s.; a third 75s. The general average for the rams would be about 12 gs. each. Mr. Prece, of Shrewsbury, conducted the sale.

THE PENDEFORD SALE OF SHROPSHIRE.—59 shearling rams, bred by Mr. R. H. Masfen, six stock rams, and 80 shearling and stock ewes were submitted for competition by Mr. W. G. Prece. Lot 1 made 16 gs., to Mr. Robinson; lot 3 was bought by Col. Lane for 25 gs.; lot 5 made 36 gs., to Mr. Chetwynd; lot 6 made 30 gs., the buyer being Mr. Waynam; lot 11 was let at 25 gs. to Mr. Pilgrim; lots 12, 13, 27, each realized 25 gs.; lot 25 made 22 gs.; the other shearlings ranging down to 5½ gs. Only one out of the 59 was unsold. The average was nearly £10 each, while the older rams averaged £13 13s. each. The ewes, which were in good condition, made from 45s. to 82s. 6d.

THE SHREWSBURY SALE.—A large Shropshire sale of 100 rams and 250 ewes, was held by Messrs. Lythall and Clarke, of Birmingham. The first lot were 15 shearling rams from Mr. J. L. Meire, of Eyton. The highest price realized was 15 gs., the lot averaging £5 15s. 6d. Next came 20 shearlings and a four-shear from Mr. H. Matthews, of Montfort. One of these made £17 17s., another £13 13s., and the rest from £11 11s. to £5 15s. 6d., the average being £8 5s. 6d. Messrs. Morris, of Gare, had 14 shearling and two old sheep. These made an average of £6 13s. Mr. W. Yates' 10 shearlings made the average of £10 2s. 6d., one of them being let at £18 18s. Lord Willoughby de Broke's 10 averaged £8 10s., the highest price being £11 11s. Mr. Sheldon, of Brailes House, had eight, which made £7 10s. each; and five from the Coalbrookdale Iron Company were sold at 5½ gs. each. The sale of the ewes was, considering the want of keep this season, very good, the whole of the lots being disposed of. Mr. Matthews' 13 pens ranged from 47s. 6d. to 60s.; Messrs. Morris' 18 pens from 44s. to 50s.; Mr. W. Yates' from 46s. to 50s.; Mr. Williams' from 49s to 54s.; and Mr. Chilwell's 44s.

SALE OF RAMS AT FORRES.—At the sale of Leicester and other rams, under the auspices of the Forres and Northern Fat Cattle Club, there was a large attendance of farmers and agriculturists of Moray, and the adjoining counties. The following were the lowest and the highest sums realised for each lot, and the average: Mr. Harris's 25 Leicester shearlings went at prices ranging from 60s. to 12 guineas, and averaged 97s. Mr. Ferguson's eleven Oxford Down lambs fetched from 35s. to 70s., and averaged 46s. Mr. Sutherland's four shearlings sold from 60s. to 80s., and averaged over 72s. Mr. Hunter's twenty shearlings went from 55s. to £6, and averaged over 80s. The principal purchasers were: Mr. Thomas Murdoch, Forres; Mr. Brown, Linkwood; Mr. Colvie, Earlsmill; Mr. Walker, Altyre; Mr. Collie, Elgin; Mr. Grant, Glen-Grant; Mr. M'Pherson, Kerrow; and Mr. M'Pherson, Muirtown.

THE BIDDENHAM RAM SALE.—The annual sale of Oxfords from the flock of Mr. Charles Howard, at Biddenham, near Bedford, was deferred to a later period than usual, and some doubts were entertained as to its success, but the well-known quality of the flock and the high reputation of the breeder always secure a good attendance at these pleasant gatherings at the old manor of Biddenham. On this occasion, notwithstanding that the season has been adverse to breeders and discouraging to farmers, a good company assembled, many of the buyers coming from distant counties; but it was remarked that the usual visitors from the continent were absent, and it is probable there was also a deficiency of those foreign commissions which give so useful a stimulus to sales of this kind. After the visitors had made an inspection of the flock, they were invited to a handsome luncheon provided in a large tent in the garden, the chair being taken by Colonel Higgins. The customary toasts having been given Mr. James Howard proposed the health of the breeders of sheep, and commented on the remark of the late Lord Leicester, that the introduction of the swede turnip and the improvement in the breed of sheep had added many millions to the wealth of this nation. It might be justly claimed by the breeders of England that they had been benefactors to their countrymen. Every man

who had travelled much in other countries could bear testimony to the great superiority of the English over the continental sheep; a superiority of which the English breeders might well be proud. Mr. WALLIS, in responding, agreed with Mr. Howard that the English sheep contrasted most favourably with the foreign; but the breeders of this country could not boast of any great pecuniary success this year: he hoped, however, that the sale to-day would show a reaction. Mr. TREADWELL, who was also called upon to respond, said that notwithstanding the difficulties of the present year, the farmers of England had reason to be satisfied with the profits to themselves as well as the honour of having added to the wealth of the nation generally, as had been stated; and for his part he thought that they could afford a bad season now and then. This sentiment was applauded, but some of the listeners gravely shook their heads, and took another sip of Mr. C. Howard's good wine. The health of the Chairman was proposed by Mr. Trethewey, who eulogised the gallant Colonel as a leading public man of the county, one of the promoters of the well-known middle class school, one who had greatly assisted in securing railway communication between this county and Northamptonshire, and one who was always foremost in the Oakley Hunt. The CHAIRMAN, after expressing the gratification he felt in meeting the agriculturists of this country, said it was peculiarly pleasing to him to know that the interests of this class were as prosperous as had been suggested by Mr. Treadwell. With reference to the middle-class school which has been established in this county mainly for the advantage of farmers' sons, it gave him, as a director, great pleasure to be able to announce that it now contained 300 boys, the full number expected. In giving the next toast, the health of their esteemed friend the host, he said it would be difficult to find a more eminent agriculturist in any county than Mr. Howard, as he had all those qualifications which that important business demanded—industry, intelligence, and enthusiasm; and it was such men as he who not only added to the wealth but also to the character of their country. The sheep now submitted had been deservedly eulogised by all who saw them; but he did not know how much the breeding of such first-class animals had turned to the advantage of the breeders. The toast having been duly honoured, Mr. CHARLES HOWARD responded, and very cordially expressed a welcome to all present. He, like every other man connected with the business of breeding animals, had for his object the realization of some reward for his own exertions; but, he added humourously in reply to the remark of the Chairman, it was not for him at that moment to tell them how much he had realized (laughter). He might say generally, however, that he was well satisfied; but there were some seasons when men in his position were perhaps a benefit to the neighbourhood yet had not succeeded in securing a corresponding benefit for themselves. On the whole, however, it was a great satisfaction to him to know that he had the credit of breeding a class of animals which would do some good wherever they went. After some brief remarks from Mr. Strafford, the company adjourned to the paddock where Mr. Strafford commented on the high qualities of the Biddenham flock, and submitted to competition 43 fine Oxfordshire Down shearing rams, together with some two-shear, three-shear, and four-shear rams. At first the biddings were given slowly and cautiously, and a few lots were withdrawn. At the invitation and suggestion of the auctioneer calls were made for certain lots, and after an active competition over one fine shearing, which eventually went at nineteen guineas to Mr. Milton Druce, the tone of the sale improved. Thirty-five of these sheep were knocked down to purchasers, twelve others remaining unsold. Amongst the lots brought into the ring there were some remarkably fine animals which at any other season would have commanded a high figure; and it was remarked by several connoisseurs, who have known the flock well, that the shearlings on this occasion looked bigger and better than any previously produced here. Notwithstanding all the disadvantages of this extraordinary season, the 35 animals sold realized an average of 9*l*. 1*s*. 6*d*.

SALE OF PURE-BRED SHEEP AT ABERDEEN.—Mr. J. Duncan, live-stock agent, Aberdeen, disposed of a number of very superior Leicester sheep, the property of Mr. Thompson, of Pitmedden, and Mr. Fortesque, of

Kingcausie. Two of the shearing rams got the first and second prizes at the recent Royal Northern Agricultural Society Show at Aberdeen, and brought high prices. The first one was sold to Mr. Garland, Cairnton, Kincardineshire, for 20 *gs.*, and the second one to Mr. Thomson, Clayhills, for £9 5*s*. The first-prize aged tup at Aberdeen, three shear, was bought by Mr. Harris, Earnhill, Forres, for £9 12*s*. 6*d*.; 26 ewe lambs brought from 22*s*. to 30*s*. each; 8 gimmers, from 4*s*. to 7*s*. each; 26 east ewes, from 3*s*. to 4*s*. a-head; 9 tup lambs, from 26*s*. to 48*s*.; 12 shearing tups from £3 7*s*. 6*d*. to £21; 3 three-shear tups, from £6 5*s*. to £9 12*s*. 6*d*. Kingcausie sheep sold readily, and were good after tups, bred by Lord Polworth and Mr. Brown, of Watton, and had for dams ewes bred by Mr. Torr of Aylesby, and Mr. Sandy. They were all shearing tups, and brought from £2*s* 6*s*. to £5 2*s*. 6*d*. each. The bidding was brisk, and the sale a good one.

SALE OF THE SUTTON MADDOCK SHROPSHIRE FLOCK.—The sale of rams, ram-lambs, and ewes, the property of Mr. Henry Smith, was held at New House, Sutton Maddock. Lord Chesham presided at the luncheon, and the agents for the Duke of Sutherland, Earl of Dartmouth, Earl of Bradford, Lord Conbermere, Lord Willoughby de Broke, Lord Boyne, Mr. W. O. Foster, M.P., and Captain Oliver attended, and were amongst the principal purchasers. The first ram, Lattiner, a four-shear, was bought by Lord Chesham, at 34 *gs.*, others making 32, 26, 17, 16, 15, 14, down to 5½ *gs*. Of the fifty-nine offered, upwards of fifty were sold, at an average of slightly over £11 each. The ram-lambs were small and in very low condition; making only from 35*s*. to 65*s*. each. But it must be stated that they were the worst end of a lot of upwards of 100. The ewes were very superior, and commanded high figures. Captain Oliver secured the Royal Agricultural Society Oxford show theaves at 16*s*. each. Lord Chesham took four pens at 115*s*., 85*s*., 80*s*., and 80*s*. per head; Lord Bradford two pens at 120*s*. and 115*s*.; Mr. Morgan Jones one at 90*s*.; Mr. Robert Smith several good lots at 80*s*., 70*s*., 62*s*. 6*d*., down to 47*s*. 6*d*., the lowest price given; Mr. Nicholl one pen at 85*s*.; Mr. Keeling one pen at 80*s*.; Messrs. Webb and Sons and Mr. W. O. Foster one pen each at 62*s*. 6*d*. The whole 120 averaged nearly £4 each. Messrs. Lythall and Clarke, of Birmingham, conducted the sale.

THE HUTTOFT LINCOLN RAMS.—At the eighth annual show at Mr. St. Peter Robinson's farm the results were—SHEARLINGS: No. 1, Mr. R. Brooks, £6 15*s*.; 2, Mr. Dring, Claxby, £6 15*s*.; 3, Mr. Higgins, £6; 4, Mr. Glossop, Anderby, £7; 5, Mr. North, South Thoresby, £20; 6, Mr. Bancroft, South Somercotes, £21; 7, Mr. Holden, Revesby, £14; 8, Mr. Williams, Hatcliffe, £16; 9, Mr. North, £11; 10, Mr. Kirkham, Markby, £17; 11, Mr. J. Hill, Strubby, £7; 12, Mr. Dring, £8; 13, Mr. Hill, £11 10*s*.; 14, Mr. Foster, Scremby, £8 10*s*.; 15, Mr. R. Williams, £8 5*s*.; 16, Mr. Mackinder, Hanby, £8 10*s*.; 17, Mr. Dring, Scremby, £10; 18, Mr. Higgins, jun., £7 10*s*.; 19, Mr. Rinder, Skelduley, £5 5*s*.; 20, Mr. Hill, Huttoft, £13 10*s*.; 21, Mr. T. C. Johnson, Tothby, £6 15; 22, Mr. T. C. Johnson, £5 15*s*.; 23, Mr. Merrikin, Grainthorpe, £8 10*s*.; 24, Mr. Crow, £7 10*s*.; 25, Mr. Higgins, jun., £7 15*s*.; 26, Mr. Crow, £8; 27, Mr. T. C. Johnson, £5 10*s*.; 28, Mr. Rinder, £6 5*s*.; 29, Mr. Higgins, £7 5*s*.—TWO-SHEARS: 30, Mr. George Cartwright, Well, £7; 31, Mr. J. Nelson, Wylham, £10 10*s*.; 32, Mr. Higgins, £10 10*s*.; 33, Mr. W. Wells, Withern, £10 10*s*.; 34, Mr. J. W. Bancroft, £8 5*s*.; 35, Mr. Higgins, £5 15*s*.; 36, Mr. Higgins, £9 10*s*.; 37, Mr. R. Brooks, £8; 38, Mr. Glossop, £7 10*s*.; 39, Mr. G. Cartwright, £6 15*s*.; 40, Mr. Bycroft, South Reston, £6 15*s*.—THREE-SHEARS: 41, Mr. Wallis Wells, £8; 42, Mr. William Chatterton, Hallington, £20; 43, Mr. Parkes, Swaby, £10 10*s*.; 44, Mr. Geo. Holden, Revesby, £10 10*s*.; 45, Mr. North, £9; 46, Mr. Mason, Huttoft Bank, £7; 47, Mr. Mackinder, Hanby, £5 10*s*.; 48, Mr. G. Cartwright, £5 10*s*.; 49, Mr. John Budbent, Anderby, £10; 50, Mr. T. Young, £11; 51, Mr. S. Abrahams, Wainfleet, £6 10*s*.; 52, Mr. G. Cartwright, £6; 53, Mr. Wm. Hay, South Reston, £6; 54, Mr. Wallis Wells, £5 5*s*.; 55, Mr. Chatterton, £10.

THE WOOTTON DALE LINCOLN RAMS.—This flock was placed under the hammer of Mr. Calthrop, when the following prices were realized: Lot 1, £28, Mr. R. Wright, Nocton Heath; 2, £8, Mr. Cordeaux, Great

Coates, Grimsby; 3, £12, Mr. J. Beaulah, Seawby; 4, £17 10s., Mr. W. Nainby, Barnoldby-le-Beck; 5, £7, Mr. F. R. Marshall, Elsham; 6, £7, Mr. Jackson, Ulceby; 7, £7, Mr. F. R. Marshall; 8, £6 10s., Mr. J. Dexter, Ulceby; 9, £12, Mr. Rt. Walker, Somerby, Brigg; 10, £10, Mr. R. H. Pearson, Stallingboro', Ulceby; 11, £10 10s., Mr. J. Danby, Hibaldstow, Brigg; 12, £8, Mr. W. Marris's exors., Limber; 13, £13, Mr. Bygott, Barton; 14, £10 10s., Mr. Sharpe, West Halton, Brigg; 15, £10, Mr. J. Campbell's exors., Gokewell, Brigg; 16, £9 10s., Mr. East, Hibaldstow; 17, £15, Mr. Champion, Lincoln; 18, £19 10s., Mr. J. Bygott; 19, £19, Mr. R. Walker; 20, £23, Mr. J. Beaulah; 21, £10 10s., Mr. R. J. Pearson; 22, £13, Mr. J. Sharpe; 23, £9 10s., Mr. W. Dunn, Warlaby, Brigg; 24, £11 10s., Messrs. E. and R. Empson, Bonby, Barton; 25, £16, Mr. G. Nelson, Great Limber; 26, £12, Mr. Hill, Poolethorpe, Brigg; 27, £15, Mr. Sharpe; 28, £8, Mr. W. Brooks, East Halton; 29, £10, Mr. Ingham, Yorkshire; 30, £11 10s., Mr. Sharpe; 31, £12 10s., Mr. Nainby; 32, £11, Mr. F. Pearson, Ulceby; 33, £10, Mr. Sargeant, Thornton Curtis; 34, £8, Mr. J. Campbell's exors.; 35, £8 10s., Mr. J. Beaulah; 36, £14 10s., Mr. Pease, Broughton Vale, Brigg; 37, £10, Mr. R. Raven, Little Limber Grange; 38, £8 10s., Mr. W. Marris's exors.; 39, £9, Mr. F. R. Marshall; 40, £12 10s., Mr. G. Houghton, South Killingholme; 41, £8 10s., Mr. Brooks; 42, £10, Mr. J. West, Melton Ross, Ulceby; 43, £10 10s., Mr. W. Brooks, East Halton; 44, £9, Mr. F. R. Marshall; 45, £10 10s., Mr. W. Brooks; 46, £12, Mr. J. Sharpe; 47, £9, Mr. J. Campbell's exors.; 48, £10, Mr. E. Abraham, Barnetby-le-Wold; 49, £10, Mr. Jackson, Ulceby; 50, £8 10s., Mr. Beaulah; 51, £8, Mr. R. Brooks, Doncaster; 52, £9, Mr. F. R. Marshall; 53, £8 10s., Mr. W. Brooks; 54, £8 10s., Mr. F. R. Marshall; 55, £10 10s., Mr. W. Smith, Kirmington, Ulceby. The average was £11 4s. each lot.

THE EAST KEAL LINCOLN RAMS.—The flock the property of Mr. J. Skinn, of East Keal, were let by Mr. E. Raney. The company was by far the largest with which Mr. Skinn has ever been honoured. With the exception of a few shearlings the sheep were all let by the hammer at prices varying from £4 to £11 5s., at which sum an aged sheep was taken by Mr. Moore.

HALTON HOLGATE LINCOLN RAMS.—At the let of Mr. J. H. Vessey's flock of Lincolnshire longwool sheep, numbering nearly 200, after an inspection, the sheep were taken by private arrangement, only 20 remaining unlet at the close. Some of the rams went for from £30 to £40 each; but farmers requiring rams for general service were accommodated with suitable animals at from £8 to £11 each.

THE OWERSBY RAMS.—The flock of the late Mr. John Davey averaged as follows: Shearlings £15 1s. 9d., two-shears £12 19s. 7d., three-shears and upwards £12 5s. 6½d.; gross average £14 0s. 4½d. One hundred and fifty ewes and gimmers were afterwards sold in lots of ten each. The ewes were knocked down at from 7s. to 80s. each, and the gimmers at 70s. to 74s. each; the whole being bought by Mr. Edward Davey, of Thoresway, and they will remain on the farm with the exception of one lot of gimmers, which were bought at 74s. by Mr. Bell, agent for Mr. Bankes Stanhope.

THE ASHBY RAMS.—These rams, the property of Mr. Clarke, sold as follows: The sale commenced with the shearlings. The first was knocked off at 12 gs., and the sale went on prosperously to nearly the end of the yearlings, when a smart shower drove the company from the ring side, and slightly depreciated the prices of the few last lots. The prime yearlings were—No. 6, sold to Mr. Johnson, of Wellington, for 25 gs.; No. 30 sold to Mr. Woolhouse for 31 gs.; and No. 20 bought by Mr. Patterson for 25 gs.; Mr. Trotter bought No. 32 (a very handsome sheep) for 20 gs.; and Mr. James Hutchinson got No. 44 very cheap at 14 gs. The prices made for the two-shears were very satisfactory; No. 70 making 20 gs., and No. 80 25 gs. The two old sheep (99 and 100) were perfect models of symmetry, and went to Mr. Cappe and Mr. Harston respectively for 20 gs. and 14 gs. The average was £10 18s. 6d. each, which, all things considered, may be regarded as satisfactory to the breeder, and certainly to the purchasers.

Mr. Wm. Baker's second annual sale of Shropshire rams and ewes, was held at Moor Barns, Atherstone. A few rams had been bred and sold privately for several years until 1867, when Mr. Baker determined to try the test of the show yard, and with such success that, since then, no

fewer than seventy-three prizes have been obtained by the flock. This fact, no doubt, much increased the attendance, which included several gentlemen from North Wales, Lincolnshire, Northamptonshire, and most of the midland counties. Six two-shear rams, including the winner at Wakefield, averaged £14 3s. 6d., one being let; and thirty-one shearlings, (all sold but two), made £9 6s. each; four of these were let, one for the latter part of the season only. The ewes were of good size, and included two or three from the Montford flock. The competition was brisk, at from 52s. to 75s. per head; the average of the seventy being 59s. 9d. No ram went higher than seventeen guineas, the sum paid by Mr. Timmis for Sparkenhoe, by Viceroy; a like figure being given by Mr. Shaw for Blenheim, by Superior. The other principal buyers were Messrs. Bate, Flint; Battams, Northampton; Marris, Lincoln; Maxwell, Northampton; Dormer, Grundy, Vergette, Sanders, Wykes, Welb, Abel Bentley, Lee, Pegg, Felthouse, Principle, Powers, Drakely, Arnold, Wood, and Adams, &c. Messrs. Lythall and Clarke, conducted the sale.

A sale of Hampshire Down sheep, belonging to the executors of the late Mr. G. D. Cookeram, was held by Mr. J. Waters, at Niton Farm. The average of all ages of ewes was 33s. per head, the two-teeth ewes realising 41s. (Mr. Olding), 34s. 35s. 30s., to 28s., the average of this age being 32s. 5d. per head. Four-teeth ewes brought 45s. (Mr. Crook), 35s. 34s. to 29s., averaging 34s. 8d. The six-teeth ewes sold at 45s. (Mr. Sloper), 38s., 37s., to 30s., and averaged 36s. Full-mouthed ewes ranged from 34s. (Mr. Moore) to 20s., and averaged 29s. 9d. per head. The Chilver lambs brought 39s. (Mr. Moore), 35s., 29s., the cull lot realising 14s., and the average being 27s. Wether lambs brought 31s. and 26s., and the cull lot 12s. per head. The cart horses all aged ranged from 37 gs., 33 gs., 31 gs., 28½ gs., &c., down to 14 gs. It rained hard during the sale, but the result was considered satisfactory.

At Compton Farm, Enford, Mr. J. Waters, submitted for sale by auction the breeding flock of the late Mr. James Martin, which consisted of about 1,100 ewes and lambs, including 220 two-teeth ewes, 230 four-teeth ewes, 206 six-teeth ewes, 180 full-mouth ewes, 250 chilver lambs, and eight rams. The following were the average prices realised: Two-teeth ewes, highest, 47s., Mr. Chisman; lowest, 35s.; average 38s. 3d. per head. Four-teeth ewes, highest, 60s. Mr. Moore; lowest 37s.; average 44s. 6d. per head. Six-teeth ewes, highest 51s.; Mr. Ferris; lowest, 34s.; average, 39s. 5d. Full-mouth ewes, highest, 50s., Mr. Wadman; lowest, 34s.; average, 38s. 1d. per head. Chilver lambs, highest, 52s., Mr. Carpenter; lowest, 23s.; average, 30s. 10d. per head. The cart horses realised 51 gs., 43 gs., 39 gs., 38 gs., 36½ gs., 32½ gs., 30 gs., &c., &c., the whole (21) having averaged £28 15s. 6d. each.

THE ULCEBY GRANGE RAMS.—There were submitted 49 Lincolns, descended from well-selected sires, and dams from the flocks of Mr. Marshall of Branston, Mr. Lincoln, Mr. Mackinder of Langton Grange, Mr. Kirkham of Biscathorpe, Messrs. Dudding of Panton, Mr. Needham, and Mr. Topham. The 49 rams, all shearlings, were offered by Mr. Calthrop, and realized the following prices, viz.: Lot 1, Mr. Thomas Edlington, Brumby, £6; 2, Mr. John Brooks, Wootton, £8 10s.; 3, Mr. Beaumont, Faldingworth, £6 10s.; 4, Mr. Leonard, Patrington, £8 10s.; Mr. Brady Nicholson, Leeds, £12; 6, ditto, £12; 7, Mr. Nicholson, Willoughton, £14 10s.; 8, Mr. Wm. Maw, Walk House, £12 10s.; 9, Mr. W. Youhill, Luceby, £6 10s.; 10, Mr. Jordesson, Bishop Burton, £6 5s.; 11, Mr. John Brooks, £6; 12, Mr. George Cartwright, Kirmington, £6 10s.; 13, Mr. F. Hookham, Thornton, £6; 14, Mr. Musgrave, Owersby, £11 10s.; 15, ditto, £15 10s.; 16, Mr. Atkin, £10; 17, Mr. Wood, Snaford, £6; 18, Mr. Nicholson, £6 10s.; 19, Mr. Smith, Hull, £5 10s.; 20, Mr. Thos. Rollett, Northorpe, £7; 21, Mr. Jonas Webb, Melton Ross, £7 10s.; 22, Mr. Leonard, £13 15s.; 23, do., £13 15s.; 24, Mr. Brady Nicholson, £17; 25, Jonas Webb, £10; 26, Mr. Geo. Bland Herring, Redbourne, £8 5s.; 27, Mr. Smith, £7; 28, Mr. Morris, Faldingworth, £7; 29, Mr. Jordesson, £6 10s.; 30, Mr. Thos. Rollett, £8; 31, Mr. John Brooks, £11 10s.; 32, ditto, £8 10s.; 33, Mr. Smith, £7; 34, Mr. Beaumont, £7; 35, Mr. George Cartwright, £8; 36, Mr. Smith, £6 10s.; 37, ditto, £6; 38, Mr. John Brooks, £6; 39, Mr. George Gurnell, Brumby, £9 15s.; 40, Mr. John Ste-

phenson, "The Beeches," £13 5s.; 41, Mr. Abraham, Scartho, £9 10s.; 42, Mr. Nicholson, Willoughton, £7 10s.; 43, Mr. John Brooks, £7 15s.; 44, Mr. Wm. Hudson, Kirmington, £13; 45, Mr. Jonas Webb, £7 10s.; 46, Mr. Smith, £6 10s.; 47, Mr. W. J. Frankish, Kirmington, £8 5s.; 48, Mr. Smith, £7; 49, ditto, £6 10s. Total, £429 15s.

THE WEST WILLOUGHBY RAMS.—Mr. W. Wood offered for sale by auction sixty rams, bred by Mr. Rudkin. Annexed are the prices: No. 1, Mrs. Smart, Ropsley, £9 15s.; 2, Mr. Newton, Ancaster, £8; 3, Mr. Palmer, Willoughby, £6; 4, Mr. Widdowson, Swaton, £5 10s.; 5, Mr. Ward, Sudbrook, £6 5s.; 6, Mr. Dolby, Foston, £12 5s.; 7, Mr. Snodin, Branston, £6; 8, Mr. Ward, Ancaster, £6 15s.; 9, Mrs. Hoyes, Hanby, £6; 10, Mrs. Sardeson, Sapperton, £6; 11, Mr. Sardeson, Haydor, £9 10s.; 12, Mr. Ward, Sudbrook, £7 5s.; 13, Mr. Slight, Willoughby, £15; 14, Mr. Andrews, Somerby, £5 5s.; 15, passed; 16, Mr. Widdowson, £6; 17, Mr. Slight, Wilsford Heath, £6 15s.; 18, Mr. Rudkin, Hanby, £9 15s.; 19, Mr. Robert, £14; 20, passed; 21, Mr. Sardeson, Howell, £10; 22, Mr. Snodin, £15; 23, Mr. Brothwell, Braceby, £13; 24, Mr. Thomas Minta, Easton, £7; 25, Mr. Bull, Boothby, £15; 26, Mr. Thomas Minta, £5 5s.; 27, Mr. Boyall, Grantham, £8 10s.; 28, Mr. Brackenbury, Londonthorpe, £8 10s.; 29, Mr. Casswell, Falkingham, £5 5s.; 30, Mr. Wadeson, Normanton, £9 10s.; 31, Mr. Nixon, Kelby, £5 5s.; 32, Mr. Lord, Hough, £7; 33, Mr. Thomas Minta, £6 5s.; 34, Mr. Robinson, Sedgebrook Mill, £6 5s.; 35, Mr. Thomas Minta, £8 5s.; 36, Sir Thomas Whichcote, Aswarby, £13; 37, Mr. Blankley, Hanbeck, £9 5s.; 38, Mr. Hedworth, Oasby, £7 15s.; 39, Mr. Castle, Grantham, £6 10s.; 40, Mr. Andrews, Somerby, £6 15s.; 41, Mr. Sardeson, Howell, £5 5s.; 42, Mrs. Sardeson, Sapperton, £5 10s.; 43, passed; 44, Mr. Parkinson, Wilsford, £5 5s.; 45, Mr. Robinson, Haeby, £7 10s.; 46, Mr. Castle, £5 10s.; 47, Mr. Ward, Sudbrook, £5 5s.; 48, passed; 49, passed; 50, Mr. Robinson, Sedgebrook, £5 5s.; 51, Mr. Bull, Cranwell, £7 10s.; 52, Mr. Bull, Boothby, £5 15s.; 53, Mr. Sardeson, Haydor, £5 5s.; 54, Mr. Snodin, £9 10s.; 55, Mrs. Hoyes, £5 5s.; 56, Mr. J. Hardy, Grantham, £5 15s.; 57, Mr. Brackenbury, £5 5s.; 58, Mr. Casswell, £5 5s.; 59, passed; 60, Mr. Hoyes, Allington, £6 10s.; making an average of £7 13s. 7d.

THE CULVERTHORPE RAMS.—The twenty-sixth annual sale took place at the residence of Mr. G. King, Culverthorpe Hall, Mr. Law of Sleaford, being the auctioneer. The following were the prices made: No. 1, Mr. Pickworth, Kirkby Laythorpe, £12 12s.; 2, Mr. Wm. Thompson, Grantham, £5 18s. 6d.; 3, Sir Thomas Whichcote, Aswarby Hall, £15 4s. 6d.; 4, Mr. Draper Mackinder, Sempringham, £8 8s.; 5, Mr. Vincent, Bottesford, £11 11s.; 6, Mr. Harris, Rauceby, £7 17s. 6d.; 7, Mr. Sharp, Sleaford, £8 18s. 6d.; 8, Mr. Cooper, Swineshead, £21; 9, Mr. Ward, Ancaster, £6 16s. 6d.; 10, Mr. Lynn, Lenton, £13 2s.; 11, Mr. King, Laneham, Retford, £8 8s.; 12, Mr. W. Birkett, Silk Willoughby, £7 7s.; 13, Mr. Bowett, Rockley, Retford, £6 16s. 6d.; 14, Mr. Avery, Welby, £9 9s.; 15, Mr. Green, Knipton, £10 10s.; 16, Mr. Bacon, Rippingale, £8 8s.; 17, Mr. Hill, Ropsley, £8 8s.; 18, Mr. Richardson, Digby, £10 10s.; 19, Mr. Welborn, Woolsthorpe, £6 16s. 6d.; 20, Mr. Cooper, Swineshead, £17 6s. 6d.; 21, Mr. Roberts, Somerby £10 10s.; 22, Mr. Hind, Stroxton, £5 15s. 6d.; 23, Mr. Pilkington, Braucewell, £13 2s. 6d.; 24, Mr. Harrison, Ashby-de-la-Launde, £10 10s.; 25, Mr. Searson, Bulby, £9 19s. 6d.; 26, Mr. Read, Great Hale, £7 17s. 6d.; 27, Mr. C. Sanderson, Dumbleby, £7 7s.; 28, Mr. Sharp, Sleaford, £8 18s. 6d.; 29, Mr. Blankley, Hanbeck, £9 9s.; 30, Mr. Riggall, Threkingham, £9 9s.; 31, Mr. Bacon, Pippingale, £10 10s.; 32, Mr. Frances Leasingham, £8 18s. 6d.; 33, Mr. Wadsley, Swaton, £6 6s.; 34, Mr. Bacon, £5 5s.; 35, Mr. Lynn, £7 7s.; 36, Mr. Pope, Kirkby Underwood, £5 15s. 6d.; 37, Mr. Robinson, Haeby, £6 6s.; 38, Mr. Creasey, Ruskington, £6 6s.; 39, Mr. Mackinder, Sempringham, £5 15s. 6d.; 40, Mr. Pheasant, Threkingham, £5 15s. 6d.; 41, Mr. Brackenbury, Horbling, £6 6s.; 42, Miss Amos, Grantham, £5 15s. 6d.; 43, Mr. Hardy, Jericho Lodge, £5 15s. 6d.; 44, passed; 45, Mr. Pickworth, Kirkby Laythorpe, £8 18s. 6d.; 46, Mr. Mackinder, Sempringham Fen, £5 15s. 6d. Nos. 47, 48, 49, 50, 51, 52, and 53 were passed. The average for the

forty-five sold is £8 18s. 3½d. A number of breeding ewes were advertised for sale, but only three pens were offered, which realised 44s., 43s., and 46s. 6d.

PETERBOROUGH RAM FAIR.—This annual fair was held in the Recreation-ground. There were 497 rams penned, being 23 more than last year, the number then being 474. The following is an account of the rams sold: Messrs. Mason and Son sold 50 animals bred by Mr. T. Caswell, of Pointon; the highest prices obtained being £17 17s. for one sold to Mr. J. Byron, of Kirkby Green; £15 15s. for one sold to Mr. Moss, of Whisby; £15 15s. for one sold to Mr. Clarke, of Bythely; and £16 16s. for one sold to Mr. Staplee, of Oxney. This flock averaged £10 5s. per sheep. Messrs. Mason also sold 30 longwool shearings, the property of Mr. Byron, of Kirkby Green, who we understand has obtained three medals and 13 first and second prizes during the last 12 months. The highest price obtained was for two animals sold to the Hon. G. W. Fitzwilliam—viz., £16 16s. and £15 15s.; the average was £9 17s. Mr. J. Wilders, of Croxton Kerrial, showed 25 shearings, with very good backs and skins. The highest price obtained was £17; the average being £10 18s. Mr. W. Mann sold 40 fine rams, the property of Mr. T. Cartwright, of Dunston Pillar, the highest price obtained being £22 for a sheep sold to Mr. Gilbert; average £11 12s. Mr. J. Fox sold six prize sheep (Oxford), the property of Mr. Gummell, one of which was sold to Mr. Rudkin, of Willoughby for 39 gs. The same auctioneer also sold 47 animals, the property of Mr. W. Kirkham, of Markby Priory, the highest price obtained being £11 10s. Messrs. Briggs sold 48 animals, the property of Mr. J. R. Kirkham, of Audley Villa, the highest price being £44 given by Mr. Breverton; average £14. Messrs. Shouler and Son sold 30, the property of Mr. Hack, of Buckminster; the highest prices were—Mr. Foster £22, Mr. Sharpe £18, Mr. Saunders £14; average £10. Mr. Lumby sold 50, the property of Mr. J. H. Caswell, of Laughton; highest prices—Mr. Rook, of Weldon, £26, Mr. Wallis £23, and Mr. Lumpkin £22; average £11 10s. Mr. E. Law sold 17 animals, the property of Mr. Garner, of Willoughby Heath; the highest price being £9 10s., and the average £7 5s. Mr. Law also sold 34, the property of Mr. Woolhouse; the highest price being £10 10s., and the average £8 15s. Messrs. Lawrence and Carter sold 50 shearings, the property of Mr. S. E. Deau, of Dowsby; the highest prices being—£31 given by Mr. S. Middleton, £17 10s. by Mr. Godfrey, Mr. Seward £16, and Mr. S. Middleton £16; the average being £12 10s. There was a very good attendance of buyers and others, and the arrangements for the ground, which were carried out under the superintendence of Mr. J. Ruddle, the surveyor, to the Improvement Commissioners, gave general satisfaction.—The disgraceful way in which some of the rams were oiled, and colourwashed, says a correspondent of the *Lincoln Mercury* calls for the interference of the agricultural shows. How long will buyers allow themselves to be deceived by such practice!

SLEAFORD NEW RAM FAIR.—The Cranwell rams, 33 in number, the property of Mr. Sardeson, were sold by auction by Mr. Law at an average of £8 10s. each; the Kirkby Laythorpe rams, 22 in number, the property of Mr. Taylor, were sold by the same auctioneer at an average of £7 each. Several other lots were also disposed of at satisfactory prices.

THE AYLESBY RAM SHOW.—Last year the average price paid for the use of each ram was £15; however, the average did not now exceed £14, the highest prices ranging from £30 to £35, while none let for less than £10.

SALE OF THE PATCHAM SOUTHDOWN FLOCK.—The flock of the late Mr. William Tanner, Patcham, was submitted to public competition by Mr. Drawbridge, by the direction of the executors. The sale took place on Standean farm, in a secluded valley among the Southdown-hills between Brighton and Hassocks-gate. The attendance was rather thin, owing probably to the inaccessibility of the situation, but among those present were several flockmasters from the western part of the county. Of full-mouthed ewes there were four lots of five, and twelve lots of ten. The lots of five were sold at 60s. to Mr. Hart, Beddingham, 50s. to Mr. T. Bushby and Mr. Hayward, Gloucester, and 46s. to Mr. Stevenson, steward to Mr. F. H. Farrer, Abinger-hall, Dorking. The lots of ten were bought by Mr. Burnett, steward to Col. Kingscote, at 47s.; Mr. Arkcoll, Eastbourne, 46s.; Mr. Ste-

venison three lots at 44s. and 40s.; Mr. Claxton, Swaffham, six lots at 43s., 40s., 39s., 37s., and 36s.; and Mr. Cordy, at 34s. One lot of Broken-mouthed ewes was bought at 33s. by Messrs. Brown. Of six-tooth ewes there were four lots of five, eleven lots of ten, and one lot of sixteen. The lots of five were bought by Mr. Fox, Westhoaty, at 51s. and 58s.; and Mr. Hayward, at 53s. and 50s. The lots of ten were bought by Mr. Bannister; ten lots, at 46s., 43s., 40s., and 39s.; by Mr. Arkeoll, at 41; Mr. Claxton, two lots, at 42s. and 41s.; Mr. Burnett, 42s.; and Mr. McNaughten, 38s. The latter also bought the lot of sixteen at 36s. Of the four-tooth ewes there were four lots of five, fourteen of ten, and one of twelve. The fives were bought by Mr. Hart, at 50s.; Mr. Fox, at 47s.; Mr. Bushby, at 49s.; and Mr. Dendney, at 41s. The others were bought by Mr. Arkeoll, at 50s.; Mr. Bushby, at 48s.; Mr. Bannister, four lots, at 46s. and 44s.; Mr. James Kent, 47s.; Mr. Haward, at 48s.; Mr. McNaughten, three lots, at 46s., 44s., and 42s.; Mr. Claxton, 46s.; Mr. S. Beard, two lots, 47s.; and Mr. Deudney, 40s. Of two-tooth ewes there were four lots of five, and twenty lots of ten. The former were bought by Mr. E. Blaker, two lots, at 60s., and Mr. Claxton, two lots, at 56s. and 50s. The tens were purchased by Mr. Claxton, three lots, at 59s., 48s., and 47s.; Mr. Gibson, two lots, 49s., 47s., and 45s.; Mr. Bannister, five lots, at 50s., 46s., 43s., 41s., and 42s.; Mr. Stevenson, 45s.; Mr. Hayward, at 47s. and 41s.; Mr. Arkeoll 46s.; Mr. Hampton, three lots, at 45s. and 41s.; Mr. Beard, 45s.; Mr. McNaughten, 44s. Of ewe lambs there were seven lots of ten, five lots of twenty, and one of eighteen. The tens were bought by Mr. Russell, at 34s.; Mr. Burnett, at 37s.; Mr. Arkeoll, two lots, 31s. and 30s.; Mr. Hammond, 28s. and 27s.; Messrs. Brown, 26s. The twenties were bought by Mr. Brown, at 25s.; Mr. Russell, 23s.; Mr. Hayward, 23s.; Mr. Arkeoll, 22s.; Mr. Russell, two lots, 22s. and 20s. Full-mouthed ewes ranged between 34s. and 60s. a-head and averaged 43s.; the six-tooth ranged between 36s. and 53s., and averaged 43s. 3d. The four-tooth ranged from 40s. to 50s., and averaged 46s.; the two-tooth from 42s. to 60s., averaging 47s. 6d.; and the lambs from 20s. to 30s., averaging 27s. Rams: Three years old, by a ram of Mr. Hart's, Beddingham, Mr. Walters, £3 10s.; two years old, by ditto, Mr. Blaker, £5 10s.; ditto by Mr. Rigden's son of Webb, No. 21, Mr. J. Farncombe, £14 14s.; ditto, Mr. Bannister, £4 14s. 6d.; ditto, flock sheep, Mr. Beard, £8 18s. 6d.; one-year-old, by Mr. Hart's ram, Mr. Blaker, £21; ditto, by Mr. Brown's ram, of Patcham, Mr. Chandler, £4 5s.; ditto, Mr. Chandler, £4 10s.; one-year-old, by Mr. Brown's ram, of Patcham, W. Farncombe, £3 5s.; ditto, Lord Chichester, £8 8s.; ditto, by Mr. Hart's ram, £4 14s. 6d. Ram lambs: By No. 1 ram, dam half Heasman, £3 3s., Mr. J. S. Turner; ditto, dam half Rigden, £1 17s. 6d., Mr. Deudney; ditto, dam half Waters, £1 10s., Mr. Knight; by Mr. Boy's ram, dam half Brown, £2 5s., Mr. Chandler; ditto, £1 15s., Mr. J. Farncombe; half Brown, £2, Mr. Case; ditto, £1 15s., Mr. Arkeoll; ditto, dam half Waters, £1 15s., Mr. Botting; ditto, £1 10s., Mr. Knight; ditto, £1 15s., Mr. Knight; flock sheep, £2, Mr. Dendney. The prices for ewes were generally good, but for choice pens not so high as might have been expected for a flock of such repute. The bidding for rams was very languid, and except for a few of the best the prices were very low. The dairy cows ranged from 14 to 28 gs.

THE BIRLING SOUTH-DOWNS—The flock of Mr. John Gorringe, of Birling, was submitted to public auction by Messrs. Southerden and Morris, of Hailsham and Lewes. The sale was in consequence of Mr. Gorringe leaving his down farm for the lowlands. The sheep, not having been "made up" for sale, and having subsisted upon the produce of the land as they picked it up for themselves, were not in very high condition; but, notwithstanding, very fair prices were made. Of ewes there were 78 lots, of ten, consisting of 15 lots of full-mouthed, 20 lots of six-tooth, 20 lots of four-tooth, and 22 lots of tugs. The ewe lambs numbered 250, the rams and ram lambs 16. For the sheep the following prices were made: Ten full-mouthed ewes, Mr. Stenning, Godstone, 37s.; ten ditto, Mr. Stenning, 39s.; ten ditto, Mr. S. Stevenson, steward to the Queen's Physician, Abinger Hall, Dorking, 38s.; ten ditto, Mr. Stenning, 38s.; ten ditto, Mr. Mannington, Langhton, 33s.; ten ditto, Mr. Bradford, Wannock, 33s.; ten ditto, Mr. Stevenson, 34s.; ten ditto, Mr. Mannington, 34s.; ten ditto, Mr. T. Arkeoll, 34s. 6d.; ten ditto, Mr. Stevenson, 35.; ten ditto, Mr. T. Jenner, Heathfield, 34s.;

ten ditto, Mr. Stevenson, 33s.; ten ditto, Mr. Mannington, 34s.; ten ditto, Mr. N. Breton, 34s. Six-tooth: Sold to Messrs. Bradford at 45s.; W. Ashby, 45s.; D. Aylwin (Maresfield), seven lots at 41s., 41s. 6d., 41s., 40s. Bannister (Cuckfield), who has taken Westdean Farm, bought six lots at 40s., 39s., 38s. W. Verrall (Itford), 42s. Honeyman (Sir J. Duke), 41s., 37s. 6d. T. Arkeoll (Eastbourne), 42s. 6d. F. Tuppen (Westham), 43s. Four-tooth Sheep: W. Verrall (Itford), 51s. James Kent (Southsea), 45s. T. Arkeoll, 45s. 6d. Bannister (nine lots at), 41s., 40s., 39s., 35s., 37s. Tuppen, 41s. Joseph Gorringe (Eastbourne), two lots at 40s. Homewood (Eastbourne), 40s. Groom (Folkington), 42s. Brown (Allington), 38s., 37s. Two-tooth Sheep: Messrs. W. Verrall, 50s., 48s., 44s., and 40s. Joseph Gorringe, 50s. W. P. Ashby, 45s. Bannister, 46s., 45s. 6d., 43s., 42s. 6d., 41s., 40s., 39s., and 38s. Tuppen, 44s. R. Brown, 40s. and 38s. Aylwin, 38s. Stevenson, 38s. Noakes, 41s. Ewe-lambs: Messrs. Burnett, 33s. Messrs. Brown, 29s., 28s., 27s., 26s., 25s., 24s., 23s. Stevenson, 26s., 25s., 24s., 23s., and 21s. Noakes, 29s. Rams: No. 1, P. Gorringe, £2 15s. No. 2, P. Gorringe, £5 5s. No. 3, Tuppen, £5 5s. No. 4, Stevenson, £3 13s. 6d. No. 5, ditto, £4 4s. Ram-lambs: No. 1, Joseph Gorringe, £2 10s. No. 2, ditto, £1 17s. 6d. No. 3, Stevenson, £2 12s. 6d. No. 4, Joseph Gorringe, £2 12s. 6d. No. 5, ditto, £3 3s. No. 6, Stevenson, £2 2s. No. 7, Joseph Gorringe, £2 2s. No. 8, Mr. Osborne, £2 10s.

LINCOLN SHEEP—The ram sales in the Lincoln cattle market were not so well attended as they have been for the last few years, and the prices made showed a considerable falling off; attributable probably in some measure to the large number of rams disposed of at the homes of the breeders. The following is a summary of the business done: Mr. Cropper's rams (sold by Messrs. Tateson and Richardson): Lot 1, Mr. Johnson, £7 10s.; 3, Mr. Gaunt, £6 5s.; 5, Mr. Frierson, £5 5s. Mr. Rudgar's rams (sold by ditto): Lot 3, Mrs. Jackson, Heighington, £5 5s.; 5, Mr. Godfrey, Willingham, £6 15s.; 6, Mr. Ashton, Waddington, £3 10s.; 7, Mr. Alcock, Nottingham, £4 15s.; 8, ditto, £4 5s.; 9, Mr. Barratt, £4 10s.; 10, Mr. Hayward, Waddington, £5; 11, Mr. Vickers, Nettleham, £4 5s.; 12, Mr. Barratt, £4 15s.; 13, Mr. Spratt, Oversby, £4 10s.; 14, Mr. Cottingham, Snaforth, £5 5s. 15, Mr. Cartwright, Tattershall, £5; 16, Mr. Howell, £4 10s.; 17, Mr. Young, Chixby, £7 5s.; 18, Mr. Wilson, Saxilby, £7 5s. Mr. R. Toyabe, Red Hall (sold by ditto): Lot 1, ram, Mr. E. Davy, £16 16s.; 2, ditto, Mr. E. Davy, £14 14s.; 1, 3 gimmers, Rev. Mr. O'Grady, Derbyshire, £6 each; 2, 4 ditto, Mr. Irving, Doncaster, £5 10s.; 3, 3 ditto, ditto, £5 5s.; 4, 4 ewes, Mr. Frudd, Donington, £4 17s. 6d.; 5, 4 ditto, Mr. Irving, £3 10s.; 6, ditto, ditto, £3 7s. 6d.; 7, ditto, ditto, £3 17s. 6d.; 8, ditto, Mr. Johnson, £3 7s. 6d.; 9, ditto, Mr. Marshall, £3 2s. 6d.; 10, ditto, Mr. Hardy, £3 2s. 6d.; 11, ditto, Mr. Clarke, £2 15s.; 12, 6 gimmers, Rev. Mr. O'Grady, £6 5s.; 13, 6 ditto, ditto, £5 5s.; 14, ditto, Mr. Irving, £3 4s. Several lambs from the same flock sold at from 36s. to 45s. each. Mr. Ealand, Potterlanworth, 80 superior gimmers, with good fleeces, sold by Tateson and Co. at from 45s. to 64s. each. The Nocton Heath Rams (sold by Mr. Law): 41 ram were shown by Mr. R. Wright, of Nocton Heath. Unfortunately, however, there was such a glut of rams on offer that many really excellent animals were disposed of at nominal prices. Lot 9, a shearling, was purchased by Mr. Black, from Scotland, for 19 gs.; Mr. Holmes, of Nettleham, secured lot 10, a shearling, for 25 gs.; Mr. T. Trotter, Skellingthorpe, purchased lot 11 for 10 gs.; lot 12, a shearling, fell to the bid of Mr. W. Cartwright for 21 gs.; Mr. Markham secured lot 20 for 14½ gs.; and Mr. Greby became the possessor of lots 27 and 28 for 10½ and 13½ gs. respectively. The 40 sheep sold realized £357 9s., being an average of £9 13s. 8d. each. The Ingleyby rams (auctioneers Messrs. Briggs): Last year Mr. Paddison, of Ingleyby, whose sheep have for several seasons been bred with the greatest care, obtained the highest average in the fair, and although the rams shown by him were fully up to the mark, the prices realized were considerably lower than Mr. Paddison had a right to anticipate. The 22 rams only realized £175, being an average of a little under £8 each. The Timberland rams: Twenty-one shearlings and two aged sheep from the cid and well-known flock of Mr. Gilliatt, of Timberland, were next offered. Lot 7 (a very fine shearling) was knocked down to Mr. Wilders for £21, Mr. Topham se-

cured lot 8 for £12, Mr. Holder lot 9 for £14 10s., Mr. Hornby lot 10 for £12, Mr. P. Brown lot 11 (a remarkably handsome animal) for £20, Mr. Stainton lot 15 for £15, and Mr. Clarke lot 23 (a three shear ram) for £20. The 23 sheep made £251 10s., being an average of £10 18s. 8d.

THE TATHWELL RAMS.—The whole of the stock of rams and sheep belonging to Mr. W. Chaplin, of Tathwell, were offered unreservedly by auction, by Messrs. Briggs and Son. The following lots were then put up first at £5 each—Shearlings: 1, Mr. W. Martin, £9 10s.; 2, Mr. Marshall, £17 10s.; 3, Mr. Meredith, £7 10s.; 4, Mr. Needham, £13; 5, Mr. Clark, £10 10s.; 6, Mr. J. Iles, £9 10s.; 7, Mr. T. Young, Covenham, £10; 8, a noble animal, bought by Mr. Vessey, £40; 9, Mr. Thos. Eve, £10 10s.; 10, Mr. W. Mason, £9; 11, Mr. Marshall, Riseholme, £11; 12, Mr. Turner, £26; 13, Mr. Cartwright, Blankney, £27; 14, Mr. Sowerby, £10; 15, Rev. T. Livesey, £9 10s.; 16, Mr. Huddleby, £5; 17, Mr. Dawson, Roxby, £16 10s.; 18, Mr. Robson, £10 10s.; 19, Mr. J. Byron, £10; 20, Mr. Meredith, £12; 21, Mr. Sowerby, £8; 22, Mr. Riggall, Manby, £9 10s.; 23, Mr. C. Robson, £12 10s.; 24, Mr. Reed, Belchford, £7 10s.; 25, Mr. Phillips, £11 10s.; 26, Mr. Pears, £16; 27, Mr. Mason, £9 10s.; 28, Mr. T. Dudding, £11; 29, Mr. Young, £9; 30, Mr. Woodruffe, £7; 31, Mr. Brown, Maidenwell, £9; 32, Mr. Wright, £7 10s.; 33, Mr. Hesseltime, £15; 34, Mr. T. Wingate, £23; 35, Mr. Brown, £9; 36, Mr. Exley, £8; 37, Mr. Danby, £7 10s.; 38, Mr. Foster, Tetney, £5; 39, Mr. Kemp, Swaby, £10; 40, Mr. C. Bell, £8 10s.; 41, Mr. R. Martin, £7 10s.; 42, Mr. W. Mason, £7; 43, Mr. Chatterton, £11; 44, Mr. Needham, £11; 45, Mr. Roberts, £8; 46, Mr. Burton, £8; 47, Mr. Wright, £7; 48, Mr. Wingate, £8; 49, Mr. D. G. Briggs, £9; 50, Mr. W. S. Welbit, £11; 51, Mr. C. Bell, £8; 52, Mr. Parr, £6. Two-shears: 53, Mr. Livesey, £6 10s.; 54, Mr. J. Robinson, £6 10s.; 55, Mr. Empson, £12; 56, Mr. Trolove, £6; 57, Mr. Foster, £7; 58, Mr. C. Briggs, £6 10s.; 59, Mr. Robson, Fulleby, £6; 60, Mr. R. Martin, £5 10s.; 61, Mr. Hesseltime, £11; 62, Mr. Robson, £6; 63, Mr. Parr, £5 10s.; 64, Mr. Danby, £11 10s.; 65, ditto, £15; 66, Mr. Reast, £7 10s.; 67, Mr. R. Mason, £6 10s.; 68, Mr. Casswell, £6; 69, Mr. Wingate, £7 10s.; 70, Mr. W. Byron, £6 10s.; 71, Mr. Phillips, £6; 72, Mr. Martin, £6; 73, Mr. Byron, £10; 74, Mr. Empson, £13; 75, Mr. Oliver, £5 10s.; 76, Mr. T. Eve, £6; 77, Mr. Turner, £16. Three-shear: 80, Mr. Young, £6 10s. Four-shear: 81, Mr. Martin, £6. Six-shear: 82, Mr. Turner, £11. A large lot of ram lambs were next disposed of, at prices ranging from £2 2s. to nearly £5 each.

THE BRANSTON RAMS.—Instead of disposing of his sheep at home, as usual, Mr. Marshall this year determined to send them to Lincoln, and 48 were offered by auction by Messrs. Briggs. A shearing was secured by Mr. Christian for £12 10s., a wonderful sheep fell to the bid of Mr. Irving for £23, Mr. Horner purchased a lot for £13 10s., Mr. Mitton a lot for £12 10s., and Mr. Marshall (Scampton) a lot for £18. Amongst the two-shears were three remarkable rams—the first was bought in at 30 gs. for Mr. Wallbridge, an American gentleman, who has this year purchased a large amount of prize stock in this country; the second was secured by Mr. Hinds for £23 10s.; the third was knocked down to Mr. Harrison for £23. The 48 sheep realized £477 10s., being an average of nearly £10 each. After the announcement of the sale Mr. Marshall sold 20 rams and gimmers to Messrs. Eells and Douglas, who reside near the Falls of Niagara, at fancy prices, and he has sold this season to foreign customers 75 rams and 24 ewes and gimmers for £1,091.

THE NOCTON RISE RAMS.—Mr. Calthrop offered about 20 very good shearing rams, the property of Mr. J. E. Howard, of Nocton Rise, but as they did not reach the value placed upon them, only six were sold by auction, these realized 41 gs. Others, however, were sold by private contract.

THE BUSLINGTHORPE RAMS.—Twelve shearing rams, the property of Mr. Odling, of Buslingthorpe, were offered by Messrs. Walter and Favill, but owing to the market being overstocked the prices made were very low. The owner, however, was determined to get out of them at any price, and the 12 realized £51 5s. 6d., several being bought by Nottingham butchers.

CADEBY HALL RAMS.—The annual sale of rams belonging to Mr. John Walesby Kirkham was held on the 15th

Sept. Messrs. Briggs offered thirty-four longwool shearlings, entirely descended from the famous old Hagnaby and Biscathorpe flocks. The prices realised were, here as elsewhere, below those of previous years, and no doubt the bad crops of corn last year, the dry season of this year, the depreciation in the price of wool, and general monetary depression in the agricultural world, have all a tendency to lower the ram market. The first ram was bought by Mr. Bingham, of Thormanby, for £10 10s.; No. 2, Mr. Isaac, of Grainsby, £22; No. 3, £20; Mr. Stephenson, of Walmgate; No. 5, £15 10s, Mr. Merrikin; No. 6, Mr. J. Coatsworth, £15. Mr. Sowerby, of Withcall, purchased nine choice rams, and the whole was sold at an average of £10 10s. each. Previous to the sale a sumptuous luncheon was well served in a marquee erected on the lawn in front of the old hall.

THE BEAUMONTCOTE RAMS.—The remaining portion of this flock of Lincolnshire rams was offered for sale in the sheep market paddock, where there was a tolerably large attendance of farmers and others interested in the breeding of longwooled sheep. Mr. Calthrop was the auctioneer. The principal purchasers were Mr. John Brankley, Barrow-on-Humber; Mr. Furlow Sergeant, Godhill; Mr. Jos. Burkill, Northlands House, Winterton; Mr. Samuel Robinson, cattle salesman, Barrow; John Ferriby, Esq., Wootton Hall, Ulceby; Mr. Jos. Sergeant, Thornton Curtis; Mr. Fredk. Cooplund, Walcott; Mr. Sergeant, Barrow; Robert Taylor, Esq., Barton New Hall; and Thomas Bennett, Esq., Saxby Villa. The average price realised was £7 10s. per head. Mr. Hesseltime, we understand, realised a larger average at Caistor fair.

MR. J. J. CLARK'S RAMS.—Mr. J. J. Clark, of Welton-le-Wold, penned 26 shearing rams, which were sold by Messrs. Briggs, and realized £269, the average being about £10 7s., exclusive of commission, being £1 a-head more than anything in the fair. We hear that at Caistor, on Saturday, Mr. Clark was also at the top of the tree. The following is a list: Mr. Dawber, £7 5s.; Mr. Garniss, £7 10s.; Mr. Bingham, £11; ditto, £11; Mr. Hart, £26; Mr. Garniss, £10; Mr. Peacock, £12; ditto, £16; Mr. Oliver, £11; Mr. Caswell, £12; Mr. Hewson, £8; Mr. Harrison, £11; Mr. Sowerby, £9; Mr. Hewson, £9; Mr. Young, £11 10s.; Mr. Harrison, £10 10s.; Mr. Dixon, £7 5s.; Mr. Fieldsend, £7; Mr. Carratt, £8; Mr. Fieldsend, £4; Mr. Rannard, £12; Mr. Sowerby, £8 10s.; Mr. Fowler, £10; Mr. Bowman, £8 10s.; Mr. Bagley, £8; Mr. Ashton, £6.

THE SCOTHORNE RAMS.—Two rams belonging to Mr. A. Garnt (part of the celebrated flock of the late Mr. Battersby) were sold at £5 10s. and £5 5s. respectively.

Messrs. Tateson and Richardson had a large number of stock on offer. Three rams from the flock of Mr. Cropper, of Minting, were sold for £7 10s., £6 5s., and £8 5s. respectively.

THE REDIAL FLOCK.—This noted flock, the property of Mr. R. Toyntee, included the animals which took prizes at the shows at Lincoln in 1869, and at Sleaford this year. The following were the prices made: Ram, Mr. E. Davy, £16 10s.; ram, ditto, £14 14s.; three gimmers, Rev. T. O'Grady, Derbyshire, £6; four ditto, Mr. Irving, Doncaster, £5 10s.; three ditto, ditto, £5 5s.; four ewes, Mr. Frudd, Dorrington, £4 17s. 6d.; four ditto, Mr. Irving, £3 10s.; four ditto, ditto, £3 7s. 6d.; four ditto, ditto, £3 17s. 6d.; four ditto, Mr. Johnson, £3 7s. 6d.; four ditto, Mr. Marshall, £3 2s. 6d.; four ditto, Mr. Hardy, £3 2s. 6d.; four ditto, Mr. Clarke, £2 18s.; six gimmers, Rev. T. O'Grady, £6 5s.; six ditto, ditto, £5 5s.; six ditto, Mr. Irving, £3 4s. per head. The eighteen she-lambs from the same flock sold at from 30s. to 36s. per head.

THE POTTERHANWORTH FLOCK.—Four gimmers, Mr. Rippon, £2 18s.; five ditto, Mr. Surfleet, £2 19s.; four ditto, Mr. Johnson, £3; five ditto, Mr. Surfleet, £2 19s.; five ditto, ditto, £3; five ditto, Mr. Rippon, £2 19s.; five ditto, ditto, £2 17s.; five ditto, ditto, £2 18s.; eight ditto, ditto, £2 10s.; eight ditto, ditto, £2 14s.; eight ditto, ditto, £2 12s.; eight ditto, ditto, £2 12s.; eight ditto, ditto, £2 11s. 6d.

THE AUBURN FLOCK.—Ten gimmers, Mr. Codd, £2 1s.; ten ditto, Mr. Riley, £2; ten ditto, Mr. Hardy, £1 17s. 6d.; ten ditto, Mr. Hunt, £1 15s.; eight ditto, ditto, £1 14s.

THE MARTIN RAMS.—Twenty-three sheep were announced as the last sale in Lincoln, Mr. Gilliat having taken a farm in Yorkshire. The average of the flock was £10 18s. 8d. The following were the prices obtained: Mr.

Nelson, £7; Mr. Holder, £11; Mr. Conington, £8; Mr. Melbourne, £5 10s.; Mr. Grubb, £7 10s.; Mr. Petch, £11; Mr. Wilder, £21; Mr. Topham, £12; Mr. Holder, £14 10s.; Mr. Hornby, £12; Mr. P. Brown, £20; Mr. Coupland, £9 10s.; Mr. Holder, £12; Mr. Stephenson, £11 10s.; Mr. Stainton, £15; Mr. Preston, £9 10s.; Mr. Melbourne, £10; Mr. Snow, £7; Mr. Coppin, £5 10s.; Mr. Nelson, £7; Mr. Holder, £7 10s. Three-shears: Mr. Holder, £7 10s.; Mr. Clarke, £20.

THE NETTLEHAM RAMS.—From this flock, which belongs to Mr. Wm. Rudgard, of Nettleham, 15 were sold for £81 15s., being an average of £5 9s. per head. The prices were as follows: Mrs. Jackson, Heighington, £5 5s.; Mr. Godfrey, Fillingham, £6 15s.; Mr. Ashton, Waddington, £8 10s.; Mr. Alcock, Nottingham, £4 15s.; ditto, £4 5s.; Mr. Barratt, £4 10s.; Mr. Hayward, Waddington, £5; Mr. Vickers, Nettleham, £4 5s.; Mr. Barratt, £4 15s.; Mr. Spratt, Owersby, £4 10s.; Mr. Cottingham, Snarford, £5 5s.; Mr. Cartwright, Tattershall, £5; Mr. Howell, £4 10s. Two-shears: Mr. Young, Claxby, £7 5s.; Mr. J. Wilson, Saxilby, £7 5s.

MR. MAY'S SHROPSHIRE RAMS.—After an interval of two years Mr. G. A. May again determined to hold his annual ram sale at home; and a very business-like company responded to his invitation to attend at Elford Park, near Tamworth. The rams were of great size, carried heavy fleeces, and, although not exactly adapted for ram breeding purposes, were remarkably well suited for improving the stamina of a black-faced flock, or for crossing. One ram was let to Mr. Madan at 7 guineas, and one sold to Mr. W. Baker at 20 guineas; others making 14, 12, 11, and 10, down to 5½ guineas. The whole were disposed of at an average of £8 6s. The neighbourhood of Tamworth and Lichfield has suffered especially from the dry weather, and, consequently, few local men were buyers of store ewes, several good pens being taken by local butchers, and twenty-five purchased for an Irish nobleman. The average realised was slightly over 50s. The principal purchasers were Sir A. Walsh, Messrs. Baker, Bradburne, Coxon, Faux, Capell (Nots), Young (Mansfield), Harris, Bennett, Roberts, Kendall, Wood, Briggs, Singleton, Hopkins, Sale, Earp, Glover, Hodgson, and Oldacre. Messrs. Lythall and Clarke, of Birmingham, conducted the sale.

THE BINGLEY HALL SALE.—An extensive sale of Shropshire rams and ewes, consisting of about 140 rams and 500 ewes and lambs, consigned from various noted flockmasters in the midlands, was held in Bingley Hall, Birmingham. A fair demand was obtained for both rams and ewes, but prices were under those of former years. Mr. E. Lythall's lot of fifteen made from 8 to 13 guineas each, the average being over £10. The Earl of Warwick took the best shearling at the higher figure. Mr. Yates's sixteen made from 5½ to 10 guineas, Mr. Nock's 6½ to 10 guineas, and Lord Willoughby de Broke's 6 guineas each. Mrs. Beach's lot included the first prize aged and shearing rams at Wellington, Wigan, and Kidderminster, which were let for the season at 20 and 19 guineas respectively to Messrs. Canning and Tolfree; others selling at 21, 15, and 12 guineas. Lord Sudeley's No. 1 was bought for the Marquis of Exeter at 10 guineas, and another by Colonel Dyott, M.P., at the same figure; the average being nearly £8. Mr. Sheldon made slightly less for a lot of seven. Mr. C. Stubbs sent a few sheep, one of which was bought by the Earl of Aylesford at 24 guineas, a second by Sir John Whitworth, Bart., at 16 guineas, and a third by Mr. Thompson at 12 guineas. Mr. Tidy made 15 guineas for a two-shear, but the other lots do not call for special remark. Mr. Druce's Oxford Down rams made about £8 each, two or three being unsold. The ewes met a better trade than at the August sale, the recent rains having improved the appearance of the turnips. The 500 averaged over 50s. each, the highest prices paid being 80s. for two pens of Mrs. Beach's, 81s. for a pen of Mr. Tidy's, 70s. for a pen of Mr. Lort's, and 76s. and 70s. for others. The principal buyers of ewes were Sir J. Allan Walsh, Bart., Mr. E. Greaves, M.P., Captain Hatherall, Mr. Bate (Flint), Messrs. Solomon Ashton, Lort, Sidwell, Horton, Hawkes, Lane, Mason, Hood, Wright, Dodds, Pearman, Bennett, and Woodbridge. Fifty lambs from Sir G. Jenkinson, Bart., M.P., averaged 25s. 6d. each. Messrs. Lythall and Clarke were the auctioneers engaged.

SALE OF SHROPSHIRE SHEEP AT BRIDGNORTH.—An extensive sale of sheep took place at Messrs. Nock and Wilson's Auction Mart, Bridgnorth, when about 550 ewes and about 100 rams were sold. Among others, purchases for Lord Boyne, Lord Forester, the Earl of Dartmouth, were made. The following are some of the names of the breeders of Shropshire, together with numbers of sheep sent, and the average amount made: Mrs. Wadlow, 30 rams, averaging from £5 15s. 6d. to 11 guineas; Mr. Wadlow, of Acton Round, five rams, averaging £5 15s. 6d.; Mr. Pitt, of Posenhall, 15 rams, from £5 9s. to 8 guineas; Mr. T. Instone, 14 rams, from £6 to 17 guineas, making one of the best averages of the season; Mr. Thomas Thursfield, seven rams, from 5 guineas to 6 guineas; Mr. Wadlow's ewes fetched an average price of from 46s. to 55s. each; Mr. Instone's averaged 56s. 6d.; Mr. Massey's, from 45s. to 50s.; Mr. T. Thursfield's, from 42s. to 45s.; Mr. Pitt's, from 53s. to 56s. Strong store pigs went at from 51s. to 81s.; cows and calves, £14 to £15 2s. 6d.; barrens, from £9 to £13 10s.; fat heifers, from £16 to £17.

THE NORMANTON HILL RAMS.—The annual letting of these rams took place at the residence of the owner, Mr. C. W. Mintz, at Normanton Hill. Mr. Spreckley, of Grantham, was the auctioneer. There was a large company of farmers and sheep-breeders. Considering the scarcity of grass-keeping, the animals were brought out in very good condition, and 64 rams were disposed of, making an average of 7 guineas, the highest price, £15, going to Mr. Thomas Garner; the next, £13 15s., to Mr. F. Vincent, of Barrowby.

SALE OF CHEVIOT RAMS AT BEATTOCK.—At the biennial sale of rams at Beattock bred by Mr. Carruthers, Kirkhill, and Mr. Johnstone, Capplegill, a large attendance around the ring. There was dinner at the Beattock Hotel. About seventy gentlemen sat down, and were presided over by Mr. Stewart, Miltongill, Mr. Denham, Beattock, being croupier. The sale commenced at two o'clock, Mr. James Russell officiating as auctioneer. The stock of both breeders were in good condition. From the low price of wool, and deficiency of lambs, this season is not a very prosperous one for flockmasters, and the high prices of former sales were not anticipated; but, nevertheless, prime animals brought extremely high prices, but ordinary rams exceeded the value for butcher's purposes. The sale commenced with Mr. Carruthers's lot about two o'clock. Three three-year-old rams sold at £4 15s. to £25, to Mr. Paterson, Howleuch, and £10, the average £13 5s. At the previous sale the average of six rams was £6 6s. Thirteen two-year-olds sold from £3 10s. to £23—the latter bought by Mr. Hyslop, Clearins, and Mr. Dalgleish, Rennalburn, bought the last of the lot, Bismarck, at £20. The average was £8 2s.; in 1863 the average was £5 19s. 6d. Forty-six one-year-old rams were sold at prices from £1 10s. to £12. Two rams bringing the latter figure were bought by Mr. Johnstone, Archbank, and Mr. Grierson, Morton Mains. The average was £4 5s. 6d. The total proceeds of 62 lambs is £341 18s., and the average £5 13s. 6d., or 12s. 6d. higher than in 1863.

THE CAPPLEGILL RAMS.—This sale proceeded immediately the last of Mr. Carruthers's rams disappeared from the ring, and commenced with a five-year-old sheep, which brought £4 10s. Nine four-year-old rams were sold at prices from £2 6s. to £9 10s., the average of the lot being £4 10s. 9d. Ninety-three rams, of three years old, were sold at figures from £2 to £11, the latter a ram bred by Mr. Brydon, and bought by his son, Mr. James Brydon, jun., Dalry. The average of the lot was £4 15s. 6d. At the previous sale twenty-one rams averaged £4 16s. 8d. There were thirty-two rams, two years old, sold; prices ranged from £2 2s. to £39, the latter figure being obtained for a splendid ram bought by Mr. Archd. Johnson, Archbank. The average was £5 4s. 4d.; the average for twenty-nine, in 1863, was £5 8s. 6d. There were thirty-six one-year-old rams sold, at prices from £1 16s. to £17, the purchaser of the latter being Mr. Brydon, Kinnilhead; Mr. Johnston, Kingledoors, bought one at £11. The average was £4 18s.; in 1863, the average of thirty-nine was £4 19s. The total proceeds of clipped rams was £461 8s. 6d., and the general average £4 12s. The sale concluded at half-past 5, and prices were, on the whole, considered good, the amount of both sales being £803 3s. 6d.

LORD FALMOUTH'S ANNUAL SALE OF CATTLE.—The annual sale of pure-bred North Devon cattle and Shropshire Down sheep took place at Trewonall farm, in the parish of Lamorran, by Hussey and Son, the auctioneers, of Exeter. Ewes averaged 46s. each, lambs 25s. to 27s. each, hogg rams (two very good) fetched £5 10s. and £6 2s. 6d. respectively, cow with calf £16, cow in calf £15, two-year-old heifer £10 17s., two-year-old steer £8 12s. 6d., yearling £6 6s., a boar pig not twelve months old £7, a sow in farrow £6. Five bulls, some of which were only ten months old, brought £20 each, and one £25.

THE ELMHAM HALL STOCK SALE.—The excellence of the Elmham Southdown and Norfolk red-polled cattle attracted a large gathering at Lord Sondes' fifth annual sale and letting. The stock offered for sale comprised 400 Southdown sheep, 17 blood red polled Norfolk heifers, and three bulls; and twenty-five Southdown rams were to be let. An upset price was placed against each of the rams, and those only were brought into the ring that were called for by any customer who was prepared to give the price. Fifty shearing ewes were put up in lots of five each, which were disposed of at from £2 6s. to £3 19s., producing an average of £2 19s. per head. Sixty more shearlings, in lots of ten, made an average of £2 5s. 6d.; sixty stock ewes, £2 6s. 4d.; ninety ewe-lambs, 29s. 6d.; and one hundred and forty wether-lambs, 26s. 6d. The rams for letting included the three-shear ram, winner of the first prize and silver cup at the Harleston show, and highly commended at Oxford, which was secured for 26 guineas for Sir W. Throckmorton, one of Lord Sondes' rivals in Southdown breeding. Another animal, the first-prize shearing ram at Harleston, was knocked down to Mr. J. J. Colman's agent for 24 guineas. Mr. Clarke, of Southacre, secured a two-shear for 15 guineas; and a shearing and a three-shear were hired for the Prince of Wales at 12 guineas each. The remainder of the rams were not called into the ring. The Norfolk polled cattle comprised 15 heifers, many of which were bought by Sir A. Macdonald, the prices varying from 12 to 26 guineas. There were only three bulls, one of which, a two-year-old, the first prize-winner at Attleboro' and Harleston, brought 26 guineas; the other young animals only 9 and 4 guineas each respectively.

HEMPTON GREEN FAIR.—There was a large and excellent show of rams, whose quality was quite an average; and, contrary to expectation, they realised better prices than those obtained for the last few years. Among the rams offered for sale were a lot of forty Cotswolds from the Marham Hall Farm. They realised an average of £10 10s. 11d., the best commanding the sum of £15 10s. A lot of thirty shearing long-wool rams, bred from the West Dereham flock, the property of Mr. Thornton, averaged £9 1s. 2d., the highest price being £14 15s. An important feature in the business of the day was the sale by Mr. Robert Aylmer, who is declining rami-breeding, of the Westacre flock. This flock, which had descended from blood obtained from Messrs. Lane, Garne, and Hugh Aylmer, consisted of seventy long-wooled shearing rams and two hundred long-wooled ewes. The sale was conducted by Messrs. Salter and Simpson. The rams averaged £8 4s. 6d., the highest bid being £14 10s., and the ewes averaged £5 12s. A lot of fifty long-wooled shearing rams, the property of Mr. P. J. Starnan, averaged £7 2s., and the highest bid was £11 5s. The next sale was that of thirty-three Cotswold rams, the property of Mr. John Aylmer, which averaged £7 11s. 10d. Twelve Lincoln and half-bred sheep, the property of Mr. Butler, averaged about £4; twelve Oxford Downs (part lambs and part shearlings), the property of Mr. Applegate, averaged £5 1s. 10d.; and eight Oxford Downs and a number of Down ewes averaged for the former £6 11s. 6d. (the property of Mr. T. Case).

THE CAISTOR SALE OF SHORTHORNS.—At this sale the stock, having suffered from the dry summer, appeared to disadvantage. This, coupled with a bad hay crop and little prospect of winter keep, resulted in low prices. Nearly every cow and heifer had a calf at foot, and were only in milk. They went from 15gs. to 30gs. each, but several of the calves made as much as 15gs. each. One heifer made 32gs., and a white bull (Paradox 7th) 36gs. There was a very large company; but the competition was very languid, and the proceedings closed with an average of £20 11s. for cows, calves, and young bulls.

SALE OF MR. HARRIS' SHORTHORNS.—The entire herd of Shorthorns, of Mr. Thomas Harris, of Stoney Lane, Bromsgrove, has just been disposed of. Mr. Harris has acquired a well-earned reputation as a first-class agriculturist, and has frequently been selected to act as judge at the principal shows in England, Scotland, and Ireland. Although not prejudiced in favour of either Bates or Booth blood, he could appreciate a good animal of either strain; the best evidence of his sound judgment being found in the fact that amongst the entire herd there was not an inferior-made animal. Sir George Jenkinson, Bart., M. P., presided at the luncheon over a company of 300. The company then adjourned to the sale ring, where Mr. Lythall, of the firm of Lythall and Clarke, conducted the business. The 45 cows and heifers over 12 months old averaged 31l. 4s. 6d.; the bulls over that age 29l. 8s.; and the 17 young calves, some only a day or two old, 21l. 0s. 9d.: the total being 1,736l. 11s. 6d. The principal lots were Favourite, 51 gs. (Earl Beauchamp); Eleonor, 41 gs. (Mr. Rowbotham); Butterwort, prize heifer at Coventry, 55 gs. (Sir G. Jenkinson); Gertrude, the companion heifer, 45 gs. (Hon. Mr. Vernon); Lady Wilkinson, 41 gs. (Sir G. Jenkinson); Lavinia, 40 gs. (Earl Beauchamp); Lady Lavender, 41 gs. (Mr. F. Lythall); Lady Sarah, two years, 42 gs. (Mr. W. Price, M.P.); Lady Elizabeth, two years, 41 gs. (Mr. Z. Walker); Lady Blanche, 9 months, 30 gs. (Earl Beauchamp); Satellite, bull-calf, seven months, 30 gs. (Mr. Webb); Hogarth, bull-calf, three months, 22 gs. (Mr. Jerrard); Habaab, one day old, 13 gs. (Earl Beauchamp.) The sale was over in exactly three hours, the biddings being regulated by the glass.

A GOOD PRICE.—Mr. F. Leney has just sold his Short-horn bull-calf, Duke of Geneva, to Sir C. Lamson, through the agency of Mr. Stratford, for 700 guineas. Grand Duke of Geneva, a roan, calved on January 30th, 1870, is by Grand Duke 15th (21852), out of Duchess Geneva 3rd, by Lord Oxford (22200). At the sale of the American Shorthorns at Windsor Duchess of Geneva was knocked down to Mr. Leney for 700 guineas, as he also purchased two others of the imported heifers at long prices—at least in those days.

DEATHS OF PRIZE SHORTHORNS.—Mr. Booth's famous bull, Commander-in-Chief (21451), died from inflammation of the intestines; and Lady Pigot's prize cow, Queen of Rosalea, from a broken blood-vessel, on returning from the Northumberland show. The Queen, as our reports have continued to record, has had a very hard season of it, and perhaps no animal was ever exhibited so often.

PROFESSOR GAMGEE AND HIS MEAT-PRESERVING PROCESS.—Touching the subject of meat preserving, other shipments of meat preserved under Professor Gamgee's process have been inspected in Melbourne during the past month. I regret that I can report no better of these than of the one of which I gave you an account in a former letter. Some cases, per Crusader, consigned by the Agent-General of Victoria to our Chief Secretary, were opened recently at the Custom-house in the presence of several members of the Intercolonial Conference, and of many others more or less interested in the subject. The shipment, consisting of two cases, a cask, and an iron cylinder, appeared to be most securely packed, and the admission of air to the contents seemed to be impossible. On the opening of the iron cylinder "the gas burst out with a hiss," as one of the reporters correctly described it, and the assembled noses had not long to wait for information as to the condition of the contents. So with the other cases. When the mutton was brought out the stench was scarcely endurable. The pork, although looking better to the eye, was no better on further trial. There was no beef at all. The whole of the meat, with the tallow amounting to 527lb. weight, was at once sold to Bayldon and Graham, the tallow-makers, at 1d. a lb. A second inspection of another shipment, per Turkish Empire, to Messrs. J. White and Co., was made a few days back at the Spencer-street Railway sheds. Two cases were opened, one containing about 50lb. weight of mutton in shoulders, legs, and saddles, and the other an entire sheep packed in oat husks. The meat was quite unfit for human food, and was sold for boiling-down purposes at 2d. per lb.—*Melbourne Correspondent of The Times.*

CALENDAR OF AGRICULTURE.

This month is the general season of sowing wheat on clay fallows, ploughed with one furrow, on leys with a single ploughing, and on the clover brush of a four years' course. The grass surfaces should be ploughed early and sown in the latter part of the month in order to expose the land to the action of change for the purpose of pulverization. Sow by hand the seed at the rate of two to three bushels to an acre, and cover with three single tines of harrowing; draw the water-furrows without delay on wet soils, with the common or double mould-board plough, and make spade-cuts into the side ditches from the inside and ends of the headlands. Water furrowing will be very much superseded by the thorough draining of clay lands.

Sow wheats by the drill machine on all fine dry soils that do not require furrowing or draining. The seeds are steeped in any corrosive liquid, as stale urine, solutions of vitriol and copperas, or even in salted waters; the light grains are skimmed off, and the wheat is encrusted with a mixture of hot lime and dried for the hand and the drill. Slant up the sown fields for the winter by making secure the gates and the fences. Sow wheat on the lands that are suitable. Prepare by following the green crop lands of next year to be planted with the early plants, as potatoes and mangold wurzel. One earth of the course, in a cross-ploughing, harrowing, and rolling, and another furrow to lay the soil open against sleet and to receive and retain the winter's moisture, will much forward the following process in the spring, with the advantage of less exposure of the land to the evaporation of moisture, a large benefit in the early and arid climates, in which alone the autumn following of lands can be performed.

Raise the crops of potatoes from the ground in dry weather, and place the tubers in a longitudinal heap of six feet in width and four feet in height on a dry site, and cover the ridged sides with loose straw beneath a stratum of drawn thatch, in thickness according to the severity of the climate in rains and dry colds. Grassy turf is a good covering, but is not very convenient, and a thick covering of earth very much encourages the sweating and sprouting of the tubers. A dry coolness is the best preservative of potatoes, obtained by a covering of straw in thatch, and when a severe snow and frost occurs the heaps are well protected by a loose covering of straw dung from the stable door, as it is dry and light, and little affected by frost. The tubers are best dug from the ground by hand-fork of three prongs, which penetrate the ground into the openings for the percolation of air and moisture, which forms a large part of the advantage of digging ground over ploughing. On the other hand, the raising of the potatoes by the plough sledges the under soil by the soleplate of the implement, closing instead of opening the orifices of percolation. Hand-digging is also most convenient for the removal of any weeds and stones, which can be gathered by hand separately, and also of the haulm to the cattle yards for the bottom litter, and being indestructible will be advantageously chopped or cut into short lengths. A permanent site of potato heaps may be formed with gravels or dry earths, raised a little above the level ground, and a permanent roof made of flakes or hurdles, that are lined with straw and twine, and divided into convenient pieces to be removed and replaced in the yearly requirement. Any thickness of loose straw may be placed betwixt the

potatoes and the thatched roof to protect against severity of cold.

Mangold wurzel, carrots, and parsnips are secured in the same way, the outsides of the heap being built with root end of the plant placed outwards, and the inside in a promiscuous position, to afford many openings for the transmission of air. The roots being juicy and succulent, require small heaps in position. The hand-sickle cuts the roots and fibres from the bulb, and also the tops close from the crown, which are given to cattle in the yards or in the grass-fields, moderately at first, to prevent hoving of the animals.

The animals of the farm will be arranged by the end of this month for the winter's accommodation, cattle in houses and yards, sheep in the fields, swine in a store-yard and fattening sties, poultry in a large yard and in separate houses for each class of animals, and the milch cows in a house and yard that are permanent for the special purpose, and are never changed. After all that has been spoken, written, and practised on the subject of wintering cattle, both in the fattening and lean condition, it is concluded, and the conclusion is in accordance with a long experience of its validity, that the most advantageous arrangement places the "largest" fattening bullocks in two, three, or four together in a yard with a shelter-shed, with fresh water in a trough, fed by a ball-cock, moveable racks for hay and straws, with wooden cribs placed along the sides of the yard and under the shed, the bottoms perforated with holes for the escape of moisture and filth, and the animal may eat at pleasure in the open air or under cover. The second-sized beasts are in four, five, or six together, with an enlarged accommodation in the yard and shed. Store animals in six to ten together, with the same plan of accommodation, enlarged to suit the number of beasts, classed by age and condition. The unruly horned breeds of Scotland require a close confinement, and tied by the neck to stakes, but even these beasts are seen to thrive best in yards, after a time settling their roving habits. Single boxes have been used for fattening animals, but with no advantage. The lair becomes very dirty, and the beast is deprived of the light, fresh air, and of the exercise that is necessary for the performance of the natural functions. Animals should be classed together by age, size, and colour, polled or horned, and also by the seeming aptitude to fatten. The similarity and fitness of objects evinces an exactness of knowledge which is only obtained by exact measurements.

On turnip farms that fatten any considerable number of beasts, the shelter-sheds standing back to back with a road between of 20 feet in width, will be provided with a railway and a waggon to fetch the turnips and other roots from the store-pits at the ends of the range of houses. The fresh condition of the roots must be used and of straw and hay in the racks in two days' use, and litter in not many days' distance. A close and unceasing attention is essential on all these points. The roots for the fattening beasts are delivered from the waggon on the railway through spout-holes in the wall into the cribs in the shelter-shed, in order that the animals may be under cover in the most boisterous climates, as in Wales and the north of Scotland. In South Britain the open air may be preferable.

By the end of the month the sheep flocks will be arranged in the winter management, the lambs of the

year requiring the earliest provision on the first sown white turnips, that are now the green food of the farm and are tender for the young teeth of the sheep. Confine the animals on a certain extent of the growing turnips for a few days' supply, with nets on stakes, flakes, or hurdles, and move the fence as the meat is consumed to a fresh break of ground, and pick from the earth by a hand claw the whole of the roots that are left. In this way the whole fields are consumed, with the animals manuring the ground by being confined within a fold of two square yards to one sheep. In stormy latitudes the animals require all the open ground to wander for lair and shelter, which are not obtained in the fold.

The fattening flock are maintained in the same way, with a full allowance of the food. On the peachy loamy lands on which the best crops of turnips are grown, the wetness may render it necessary to carry the half of the turnip crop to a ley or stubble field, to be consumed in broadcast by the sheep, when the land is much improved for oats or a fallow crop. The turnips are also sliced by hand-cutter into troughs, with the tops in short lengths, and may be topped and rooted into covered heaps, that are dealt out as required. But it may be doubted if any preparation prevails over eating the roots fresh growing on the ground.

The store flock betwixt the lamb and the fattening is treated in the same way, with a less allowance of food.

On hill farms of sheep-growing that are not cultivated, the whole success depends on the quantity of winter food that is provided in hays from the meadow ground that are attached in some greater or less quantity by the sides of brooks in vallies. Being placed in ricks in convenient positions, the animals will gather around the place to receive an allowance throughout the winter from the end of this month.

Place the breeding ewes with the tup, one to forty or fifty for six weeks, on a grass ley or stubble field, and they may get a supply of small turnips and tops to maintain a fresh condition of body, which much improves the salacity. The skill and judgment of the farmer will be sharply exercised in the formation of the breeding flock by rejecting the faulty animals in age, shape, and general appearance, from those of a robust vigour in the eye and action, lengthy closeness of wool, without being matted or too open to the skin. A square frame in a round carcase is a very chief consideration, and the nearest approaches to it must be carefully observed. The rams being painted on the brisket will mark the ewes as in the order of impregnation, and the right and left ears being pierced with

a hole in the fore and back mark will distinguish the progeny of the same mark in the rams, and show the descent of the whole flock, and enable the breeding from proper consanguinities and nearness of kin. The rejected animals for breeding are sold to yield another crop of lambs or fattened on the farm, always remembering to dispose of the animals while the mouth of teeth is able to fatten the carcase. The room thus vacated in the breeding flock is supplied by an equal number of ewe hogs from the flock of eighteen months. In order to preserve special uniformity in every class of animals, the old and young must not be mixed, but form separate divisions of old and younger breeders. This arrangement will be very advantageous on large farms.

Dip sheep for a few minutes singly in a liquid of corrosive mixtures to kill vermin and remove impurities. The mountain sheep of stormy and northern climates are smeared with tar, with butter, and oil, and no chemical substitute has yet been found.

Swine are placed in a store yard for young animals, and in sties of two pigs together for bacon hogs, on boarded floors or paved with timber blocks, warmed underneath by a pipe from the cooking-house and wormed into every floor of the piggery and poultry houses. The boar and brood sows are lodged in single apartments from which the weaned pigs are sent to the store yard, fed with roots, and amply littered and sheltered. The most forward are drawn as wanted into the fattening sties in which the food is given of meals and steamed roots mixed, with a meal daily of raw grains, as beans and barley in the last month of fattening to impart a white firmness to the flesh. The season of fattening from this month will yield two casts of bacon hogs before the season of curing must cease.

Poultry are lodged in separate apartments for each kind of animals, with special purposes, and fed with light grains, and the meal as for pigs. The boarded floors of the houses are warmed underneath by the pipe as in the piggery, as the warmth will much conduce to the laying of eggs and the early hatching of chickens.

Milch cows in the shed and yard of the special use will begin to get the green food as it comes into use along with hays and chaffs.

Sow rye for a seed crop and for an early green food for ewes and lambs. Sow winter vetches for an early green food, in a thick seeding, with a small mixture of rye or winter beans, or barley, or a late cutting on clean lands of good quality. Sow winter beans and barley for seed crops.

CALENDAR OF GARDENING.

KITCHEN GARDEN.

Plant peas and beans, with the chance of an early crop. Transplant and sow hardy lettuce, according to the directions before given. Cape brocoli requires early care; and as each head is cut the stump and leaves ought to be removed, and when dry should be burned for the sake of the ashes. Spring brocoli plants should now be sloped down, their heads to the north, and earth brought up nearly to the leaves, or if in trenches, the stems ought to be landed up.

Beet-root and carrot are partially digged up, and stored in sand, for early use.

Cauliflowers in frames or under glasses are to have an abundance of free air in dry weather, and at the end of the month remove some of the best plants to beds or warm borders, to be covered by hand lights; place three or four in a spot, making the earth firm around the roots

and stems; cover till growth be established, and then give all the air possible in fine weather.

Plant hearting cabbage and colewort, and finish as soon as possible. Sow some mazagan beans, and also small salads once more, of which the trouble is slight: the success may be uncertain, but the relish is very agreeable.

Tie up some good plants of endive for blanching, and draw fine earth around the stems. Thin out winter spinach; keep it clear from weeds, and make the ground clean. Hoe and earth brocoli, cabbage, borecole, and Brussels sprouts. Cut anon the decayed stems of mint, balm, thyme, and other sweet and aromatic herbs; hoe the ground, and, if needful, add a little nice fresh earth to the spaces; plant slips of the pot-herbs and divide mint.

Asparagus beds should be brought into winter order, not waiting for the ripening of the seeds. A good method

is the following: Cut to within two or three inches all the haulm, remove every week, then dig trenches on each side a foot deep, and spread the earth over the beds or rows, turn the haulm into these trenches, treading it even at the bottom, and sprinkle half a pound of salt over it in every trench of twenty to twenty-five feet in length; finally, fill the trenches to the ground level with half decayed stubble, dung, and leaves. Sea-kale may be treated in the same manner; the leaves of every vegetable ought to be returned to the soil, but deeply buried. Rhubarb and artichokes are mainly assisted in this way, the earth in the trenches soon becoming an admirable earth. These plants are strong feeders, and require a powerful manure, as will be found in the contents of the tank, which must be in a condition of half decay, with a moisture without dropping, at least not largely.

Raise from the ground and lay in store the potatoes of all kinds, of which the haulm is yellow in decay.

Commence to excite asparagus if any is wintered in frames, and sea-kale also.

Dig all kinds of land, and ridge-trench heavy soils. Incorporate manures, and keep all quarters clean.

FRUIT DEPARTMENT.

Trees and shrubs, deciduous and evergreen, are safely planted from the middle to the end of the month. To do the work effectually such ground ought to have a well drained bottom, and be trenched eighteen inches deep, according as the upper earth is deep or shallow; lay dung over the soil that covers the roots, as top-dressings may be the best of all manurings. In that case no digging or trenching of the land is required, but always a most complete thorough drainage in all soils inclined to wetness. Raise the grassy turf on the upper stratum a few inches in depth, root-prune the young trees, and

spread the shortened roots even and thinly on the ground over a thin layer of guano-mixture in five or six to one, and tread the earth firmly over it, fixing the tree, and cover the ground around it in a yard of extent with very moist half rotted farm-yard dung, or the vegetable contents of the liquid tank. Deep digging and horizontal covering may be eligible in all cases of fruit trees, large shrubs, and standard trees, that are planted to fill corners and to remain singly for beauty or otherwise; for groups and clumps of trees the same treatments is recommended.

Gather and store apples and keeping pears; the latter require a warmer room than apples.

FLOWER GARDEN.

Plant auriculas in airy frames; camellias and heaths in a dry, cool, and well ventilated green-house or pit; succulent plants, as cactus and pelargoniums, in a house with a full southern aspect. Reduce water in any glass erections. Neatness in the open air departments and in the shrubbery is what is now to be chiefly attended to.

The winter aspect of a garden for pleasure, or for growing fruits and vegetables in conjunction, shows the cultivation of the ground and the crops that have been obtained by the total absence of weeds, and the neat order of the grounds after cropping. Dig for the early spring sowings of the lighter plants, as peas and legumes, and rough trenched with dung in mixture to be planted with the stronger plants, as potatoes, beet, and other tap-roots. Winter manuring is preferable to the spring for succulent crops, with a deep preparation and a strength of aliment. The land lying in exposure during winter, will derive the benefit of the reciprocal action of atmospheric and terrestrial elements.

AGRICULTURAL REPORTS.

REVIEW OF THE CATTLE TRADE DURING THE PAST MONTH.

Throughout the month a considerable increase of steadiness has been noticed in the cattle trade, and prices have ruled very high. The apparent determination of the French to resist all attempts at the spoliation of their territory, and to carry on the war to the bitter end, render the prospect of our receiving continuous supplies from the Continent somewhat uncertain. From this circumstance the total supplies at market have been less extensive. An Order has, at the same time been promulgated, forbidding the removal of French and German cattle from the waterside, owing to the prevalence of disease in those countries; and, in future, only Dutch and Spanish beasts will be allowed to pass the barriers. The quality of the stock has been very unequal, and really prime breeds have continued remarkably scarce. However, this is not a subject to be wondered at, especially when the failure of the hay crop, and the great difficulty experienced in obtaining food for the cattle are taken into consideration. Much anxiety is still felt as to the means of obtaining sufficient supplies of food during the winter months. The pastures and meadow lands have certainly improved to some extent, under the beneficial influence of the late rains, and the root crops are also turning out well, but the main staple is sadly deficient in quality, and there is therefore every probability of cheap meat during the winter season. At the present moment the best Scots and crosses are selling at 5s. 10d. to 6s. per 8lbs.

With sheep the market has been scantily supplied. The quality, as in the case of beasts, has been very indifferent; nevertheless the trade has ruled firm. At one time the best

breeds were making 6s. 2d., but the best Downs and half-breeds are now selling at 5s. 10d. to 6s. per 8lbs.

Calves have commanded a fair amount of attention, at full quotations. The supplies have been moderate.

In pigs, the business doing has not been important, and the fluctuations in values have been trifling.

The total imports of foreign stock in London, during the month have been as follows:

Beasts	...	...	...	9,329	Head.
Sheep and Lambs...	...	...	...	31,661	
Calves	...	...	...	2,109	
Pigs	...	...	...	3,039	

COMPARISON OF IMPORTS.

Sept.	Beasts.	Sheep and Lambs.	Calves.	Pigs.
1869	13,745	47,341	3,385	4,587
1868	11,951	11,846	1,493	3,116
1867	11,082	34,572	779	4,500
1866	15,405	45,625	2,183	2,942
1865	12,553	69,792	3,192	9,434
1864	14,444	48,201	3,161	5,701
1863	11,923	50,780	3,213	2,691
1862	7,219	33,985	2,257	2,546
1861	6,759	36,236	2,323	3,214
1860	8,120	37,420	2,200	3,188
1859	6,966	49,141	1,744	1,895
1858	5,999	26,205	2,735	2,472
1857	7,346	24,288	1,953	2,067
1856	7,084	23,605	2,772	1,559

The arrivals of bullocks from our own grazing districts, as

well as from Scotland and Ireland, thus compare with the three previous years:

From—	Sept. 1870.	Sept. 1869.	Sept. 1868.	Sept. 1867.
Lincolnshire, Leicestershire, and Northamptonshire	8,550	11,450	12,750	7,550
Other parts of England.....	2,800	1,730	1,990	2,770
Scotland	315	3	360	11
Ireland	1,200	830	382	1,040

The total supplies of stock exhibited and disposed of at the Metropolitan Market during the month, have been as under:

Beasts	23,115	Head.
Sheep and Lambs... ..	126,570	
Calves	2,889	
Pigs	1,115	

COMPARISON OF SUPPLIES.

Sept.	Beasts, Sheep and Lambs.	Calves.	Pigs.
1869	28,255	156,680	4,142
1868	26,940	157,440	2,643
1867	75,290	127,510	1,565
1866	26,560	129,430	1,984
1865	27,040	151,440	3,324
1864	30,910	137,490	3,184
1863	27,710	131,100	2,458
1862	28,074	139,200	2,364
1861	26,950	142,990	2,260
1860	27,080	144,450	3,302
1859	24,560	145,430	1,891
1858	27,446	131,150	3,280
1857	25,734	117,715	2,220
1856	24,002	132,014	2,452

Beasts have sold at from 3s. 8d. to 6s., sheep 3s. 10d. to 6s. 2d., calves 3s. 6d. to 6s., and pigs 4s. 4d. to 6s. per 8 lbs. to sink the offal.

COMPARISON OF PRICES.

	Sept., 1869.			Sept., 1868.		
	s.	d.	s. d.	s.	d.	s. d.
Beasts from	3	4	to 5 2	3	2	to 5 6
Sheep	3	4	to 5 8	3	2	to 5 2
Calves	4	0	to 5 4	3	6	to 5 0
Pigs	4	2	to 6 0	3	4	to 4 4

	Sept., 1867.			Sept., 1866.		
	s.	d.	s. d.	s.	d.	s. d.
Beasts from	3	2	to 5 2	3	6	to 5 6
Sheep	5	4	to 5 2	4	8	to 6 4
Calves	4	0	to 5 8	4	4	to 5 6
Pigs	3	6	to 4 4	4	0	to 5 2

The dead meat markets have been moderately supplied. The trade, has been firm, and full prices have been obtained. Beef from 3s. 4d. to 5s. 4d., mutton 3s. 8d. to 5s. 6d., veal 4s. 4d. to 5s. 4d., and pork 3s. 4d. to 5s. 10d. per 8 lbs. by the carcase.

WEST SUSSEX.

The harvest of 1870, a very short and inexpensive one, having been some time concluded, the thrashing-machine has been pretty freely used. There probably never was a greater difference of opinion as to the yield of the wheat crop. It is generally supposed that it will yield well according to the crop of straw, but the latter is certainly short and deficient in bulk. During the winter a great deal of the growing wheat looked thin and weakly, and some of it did not come up well; it appeared to be attacked by grub or wireworm, and although not done to any great extent in the aggregate in this division, a considerable number of acres were ploughed up, not being considered good enough to stand for a crop, and the land resown with barley or oats. Then came in one of the most trying springs ever known, with frosts and dry parching easterly and north-easterly winds prevailing for days and nights together. The furze and evergreens seemed scorched as if by fire; but the wheat plant passed through all this better than could have been expected, and when the more genial weather did at last come it tillered out well, and showed good strong ears, and the blooming time was favourable; and so the season continued up to harvest. To sum up, therefore, I think it may be fairly assumed that on good deep holding

soils, well farmed, there will be a good crop; but considering the quantity of hill land and the wealden clay, besides a quantity of other land (not true wheat land), it appears to be the more prevailing opinion that in West Sussex the crop will not prove an average. Barley it is supposed will be a fair crop, but the colour is not first-rate, hardly enough thrashing, however, has been done to fairly test this. Oats will be the worst crop grown in this division for years, and very deficient in straw. Early sown peas on suitable soils well farmed will turn out a fair crop. Beans are not much grown, they seemed very short in the haulm. The hay crop, both clover, seeds, and meadow grass, may be safely pronounced the worst crop grown in the memory of any farmer living; and what is to be done during the next winter, particularly should it turn out a severe and long one, can hardly be imagined. We have had some fine rains latterly, and the consequence is that some very good fields of mangel wurzel, swedes, and white turnips, are to be seen, but the failures are also sadly apparent. Fat stock, as might be expected, is hardening in price, and there will be a difficulty among the graziers to keep the local markets supplied.—Sept. 22nd.

AGRICULTURAL INTELLIGENCE, FAIRS, &c.

CAISTOR FAIR (Saturday, Sept. 17).—Good show of sheep and plenty of buyers ready to bid at recent prices; but sellers holding out for an advance, sales in most instances were slow and tedious. Beasts very few, and quickly bought up. Ram sales.—The Wold Newton: 25 sold by Mr. Richardson, highest price, lot 19, 12/ 5s.; average 7/ 3s. The Beaumont Cote: 25 sold by Mr. Calthrop, highest price, lot 8, 12/; average 7/ 15s. The Kettlebythorpe: 21 sold by the same auctioneer, highest price, lot 14, 14/ 10s.; average 6/ 10s.

DRIFFIELD FAIR AND RAM SHOW.—The second of the harvest fairs is noted as a lamb fair, and more especially as the supply amounted to 9,000, most of which were lambs. At the commencement holders asked high prices, but eventually sold at a reduction of 2s. to 3s. per head. Prices ranged from 22s. to 40s., the general average being 32s. to 37s. per head. There was a sprinkling of ewes, which sold at 38s. to 40s. per head. A few fat sheep went at 7½d. to 8d. per lb. There was a moderate show of rams, which sold at £7 to £10 each. Horned cattle were scarce, and there was not a really fat beast offered. Year-olds £8, in-calfing cows £18 to £20, heifers £14 to £16 per head. In the horse fair there was a moderate show of inferior animals, with a few draught horses, which sold at £27 to £30 each.

DUNDEE LATTER FAIR.—This annual market, the last of the season, was held on Tuesday. The show of cattle, almost exclusively two year olds, was the largest seen for some time. There could not be much under 1,000 head on the ground. The show of fat was limited, few cattle fit for the shambles being offered. Milch cows were in demand, and the supply was good. Some sold by Mr. Liddle, Denny, were superior animals, and fetched high prices. The show of horses was less than usual, but what was wanting in quantity was more than compensated for in quality, and numbers of really good farm horses changed hands, the rates for which ranged from 20/ to 43/, sales being effected at the latter figure. Some superior animals, for which as high as 50/ was asked, remained unsold. There was not the usual quantity of light animals shown, so any sales made were at higher rates owing to the want of competition.

DUNSE EWE TRYST.—The first ewe tryst in the Border district took place at Dunse, on Tuesday, and was well attended by farmers and dealers. There was a fair show of ewes, and lambs were a large show. For draft ewes there was a good demand at prices from 2s. to 3s. a-head above the figures obtained last year, and at the close all were sold off. For lambs there was not an active demand. Sales went on slowly, and at mid-day a number of the lots remained unsold. The prices asked in the morning had to be lessened somewhat before many sales took place. Among the prices obtained for draft ewes were the following:—Mr. Rutherford, Pintonan, sold his three-parts bred ewes at 45s. a head. Mr. Fogo, East Reston, sold his lot to Colonel Hay at 38s. Mr. Gillespie, Simprin

Mains, sold his lots of three-parts at 42s. Mr. Fender sold the Mount Albyn lot of half-bred ewes at 39s. Mr. Bertram, Blackerston, sold his half-bred ewes to Mr. Caw, Whitsome Hill, at 39s. Mr. Weatherhead, Whiteburn, sold his half-bred ewes at 36s. The Greenlaw Dean lot of half-breds were sold at 36s. Mr. Cowe, Old Cambus, sold his half-bred ewes at 38s. Mr. Burton, Crumstances, bought a lot of three-parts from a farmer near Dunse at 30s. Mr. Halliburton, Eiddon, sold a lot of three-parts lambs at 30s. Mr. Purves, Thorniedykes, sold a lot three-parts at 20s. Mr. Mill, Hyndeside, sold a lot of three-parts at 25s. 6d. Mr. Rae, sheep-agent, Lauder, sold the Earl of Lauderdale's lot of three-parts at 29s. 6d., the Threepwood lot at 21s. 6d., and other lots at from 23s. to 27s. Messrs. Currie, dealers, Morebattle, sold a lot of half-breds at 19s. Mr. Craw, Whitsome Hill, sold a lot at 21s. 6d. Mr. Scott, St. Boswell's, sold a lot of half-breds at 17s. Mr. Outerson, Jordanlaw, sold a lot at 21s. Sale of Tups.—About eleven o'clock, a sale of Leicester rams took place in a field adjoining the English Chapel—Mr. Penny, Kelso, wielding the hammer. The demand was not brisk, but fair prices were obtained. Mr. Fender, Rulesmaius, sold 63 rams, at an average of £5 11s. 8d., the highest price being £11 10s. The lot of 8 rams, belonging to Mr. Robertson, M.P. for the county averaged £4 14s. 6d.

GLASTONBURY TOR FAIR (Sept. 19).—There was a large attendance at this fair, and the supply of cattle, sheep, lambs, and pigs was large. Beef realised from 12s. to 13s. per score, mutton 7½d. to 8d. per lb., pigs 10s. 6d. per score. There was also a good supply of mares and foals, and many of the latter changed hands at good prices.

GLENISLA CATTLE AND SHEEP MARKET.—This large annual market for the sale of sheep and cattle was held to-day in the vicinity of the Kirkton of Glenisla. The attendance of farmers and cattle and sheep breeders was, as usual, large, while that of dealers was also numerous. The display of black Highland cattle was, as usual, large and superior, many of the animals being in good condition and ready for the butcher. The greater portion were two-year-old stots and queys, but there was also an excellent turn out of six-quarter-old beasts, which commanded considerable attention. At an early hour business began briskly, and to the close of the day. The sales began before eleven o'clock, and by two were nearly at a close. Prices were remunerative to expositors. For the best fat beef 9s. 6d. to 11s. per Dutch stone were the quotations. The best two-year-old stots, at two and rising three years, commanded from £16 5s. to £17 and £20. For the best queys of the same age the prices were from £12 10s. to £15, for the best fat cows £14 to £24, farrow cows £13 to £19 10s. per head; for best six-quarter-old cattle £9 to £11 was freely given, and at the close scarcely a lot of good cattle left the ground unsold. The show of sheep was not larger than last year, and though the animals were generally of good quality, there appeared to be but little demand, and as little desire to sell. Highland ewes sold from 14s. to 15s. per head, cross lambs 17s. to 20s. per head. A few lots changed hands at these rates. The best mutton sold at 6d. to 8d. per lb. At the close a clearance was not nearly effected, though prices indicated a downward tendency.

HAWICK TUP FAIR.—The weather was very fine; and there was a large attendance of farmers in the district north and south of the Border line, besides buyers from various parts of the three kingdoms. The Cheviot stock is the principal feature of the market, which ranks among the foremost in the country for this class of sheep. The numbers on the ground were about the average. The market may generally be pronounced a good one for the best class of sheep; but inferior beasts were a drug, and did not realise the expectations of expositors. All but a small portion were sold in the auction rings. The only transactions in private pens that we heard of were those of Mr. Grieve, Skelhill, who sold rams at from £4 to £20. The whole business of the day was concluded about five o'clock. The show of Leicesters was larger than usual, the tempting prices of late years having induced many to enter the market. The consequence was a decline in prices from the rates of last year; but, taking quality into account, they were equal to those obtained at Kelso and Edinburgh. This is more of a Cheviot than a Leicester district; but some of our local breeders have through a long course of years brought sheep to the ground which will compare with any but the very highest-priced in the Kelso rings.

LAMBERT'S CASTLE FAIR (Sept. 17) was tolerably well attended, but only about 600 sheep were penned, and trade was slow. Pigs plentiful and well sold. The horse fair was tolerably well supplied, and some business was done. Horne wool 13d. to 13½d.

LEWES GREAT SHEEP FAIR.—This old established fair was held on Wednesday last. The number of sheep and lambs penned was about 26,000, which, although somewhat less than in the two previous years—when the numbers were thirty-six and thirty-four thousand respectively—is rather over the average of the last twenty years. The cold spring was, of course, very unfavourable to lambing, and exercised a marked influence in the numbers reared, and this, coupled with the fact that many flockmasters were constrained by the severe effects of the drought to accept the low prices prevailing at the early fairs, led many to expect a short supply and better prices. The result showed that although the supply was not below the average an improvement was certainly noticeable in prices. There was a large attendance of buyers, including many from distant counties. To the stagnation of trade and agricultural industry in France and Germany may also be ascribed the fact that the choice rams and pens of ewes at the flock auction sales this season have not been so eagerly sought after, and consequently have not realised nearly so high prices as usual. Ewes ranged from 27s. to 46s. 6d. In lambs there was a wide range between 14s. and 31s. The highest price made by the large hill flockmasters was 28s. 6d. There was a splendid show of rams; the trade was not very brisk, but a considerable number were disposed of at prices ranging between 8 and 20 guineas. Of cattle there were a few score head of black runts, and there were also some horses, but in the trade there was no special feature worth notice.

LOCKERBIE LAMB FAIR (Sept. 22).—The show of stock was much less than at the corresponding market of last year, but was fully as large as at the August fair. The number would be about 24,000 head, and was composed of half-bred lambs, mostly seconds, Cheviot lambs, cross lambs, and a few lots of blackfaced lambs. Only two lots of draft ewes were on the hill; there were several lots of Cheviot wethers and gimmers. The stock was in good condition. About 2,200 lambs were sold by auction on Wednesday afternoon, and on that account fewer half-breds were shown to day. There was a large attendance of buyers from Wigtownshire, with a good number from the south. The late abundant rains have greatly improved the turnip crop in Dumfriesshire and Galloway; the young grasses and clover are now available, the fields now being cleared of crop; and in this district there is no lack of keep for stock. Business commenced briskly for the half-bred lambs, most of the best lots being picked up by Wigtownshire buyers early. After the better class of half-breds had been sold, the market grew less animated. There was a good demand for Cheviot wether lambs, and the tops were readily sold. Ewe lambs were rather slower to sell than wethers, but most of the lots went off. Crosses were not so much in request as half-breds, and the market was slow for that class in the morning, few sales being reported until near noon. After eleven o'clock there was a slight lull in the market, but after mid-day business again got brisker, and by three o'clock a clearance was nearly effected, except where a few lots were held by dealers. Half-bred Lambs were 1s. 6d. to 2s. up since August, besides paying their keep; Cheviot lambs were 6d. to 1s. 6d. higher after paying keep; prices for half-bred lambs were from 20s. to 35s. 6d.; Cheviot wether top lambs 11s. to 16s., second wethers 8s. to 10s., mid-ewe lambs 12s. to 15s., thirds 8s. to 10s., crosses 14s. to 22s. The cattle were an average in number, and included 322 Galloways, 63 Highlanders, 75 Ayrshires and crosses, 61 Irish, 12 Hereford cattle; in all, 522. Some excellent stocks were shown, but on the whole the show was scarcely an average in quality, some herds usually shown at this fair being previously sold privately.

PARTNEY SEPTEMBER FAIR.—This extensively known and celebrated mart for sheep and beasts had its commencement for sheep on Monday last. The number of sheep penned was not less than on former occasions. Good useful two or three-year ewes, well-woolled, were in request for breeding purposes. Mr. Wright, Ashby, made 63s. 6d., a superior lot, almost ready for the butcher; the general run was from 40s. to 50s. Lambs made from 20s. to 39s., according to quality.

REVIEW OF THE CORN TRADE DURING THE PAST MONTH.

The month of September has been most extraordinary, both in its political and commercial aspect, the success of Prussia in the war with France culminating in the complete investment of Paris, and the establishment of 650,000 Germans on the soil of France. Everybody was in hopes that peace would soon be the fruit of such decided victories, but it seems as far off as ever, and more human blood, it appears, must flow, and treasure be destroyed before these deadly foes will cease from strife. The very idea of war on such a scale, and so close to our own shores, in former times would have advanced rates fully 10s. per qr.; but no, while home supplies of new have been free, foreign abundant, and stores accumulating, the value of wheat has gone down further 2s. per qr., though the last Loudon markets seems to have reached their lowest. The fact is, no speculation is afloat, none being confident of the issue of the present conflict, and therefore all have put a reserve upon their capital till better times shall induce them to use it freely. With the prospects of peace so distant, however, it is only reasonable to calculate on the effects of a continued war; and as respects France more especially, these are easily made. Already we have heard of a destruction of food near Paris, to prevent its falling into the hands of the enemy, and should this policy of destruction apply through the length and breadth of the land, agriculture there must be forced to an involuntary rest, while the gatherings of the past year, already small enough, may be not only wasted, but wilfully destroyed. For who will till or sow, uncertain whether he or the enemy shall be the better for it? The demand for oats has fallen off, and well it may, for how many of the French cavalry have fallen from their horses, and left the animals to be bought for a song by Belgium dealers! and though peas were being shipped to the famishing armies, as more nutritious than other corn, this demand too has ceased, and we now are left to the wants of Belgium and Holland, whose supplies have hitherto been shut out by the French blockade. In the midst of all these things it is remarkable that Germany herself was so lately threatened by heavy rains, that the ports, blockaded, had they been free, would have sent us next to nothing, from the greater value at home; and though these ports are now open, they are still above our range, and yet may remain so. America and Russia are the countries whence our chief supplies have come. Russia itself has lately become too high for new transactions, and though New York has been willing to meet English views, the last advices thence show an upward movement. So all we have to say is, that the signs of the times are much more favourable to an advance than otherwise. The last price noted for flour in Paris was 48s. 6d. per 280lbs.; wheat not being quoted. White wheat of the week, New Zealand sort, was 54s., and the same was quoted at Amsterdam; at Lyons wheat was 58s., red at Antwerp 58s. 6d.; Hambro' quotations were 54s. to 58s., at Petersburg 44s. c. f. and i., the same not being worth here over 42s. 6d. Stettin and Danzig rates were much above our own, at the latter 50s. f. o. b. was the last price paid; free on board wheat at Milan was 48s., Barletta at Naples 46s. 8d., at Messina 54s. 6d., at Valladolid 51s., at Alexandria 41s., at Valparaiso 52s. 6d. cost freight and insurance; at Adelaide 42s. 6d., at Melbourne 40s.; No. 2 at New York 42s. 9d. per 480 lbs. cost freight and insurance.

The first Monday in Mark Lane commenced on a fair supply of English wheat, and very liberal arrivals from abroad. The trade opened dull, though the show of fresh samples from the near counties was but moderate, and sales could only be made at a decline of 2s. per qr., the bulk consisting chiefly of new samples. Business in foreign was very inactive, at fully 1s. per qr. less money. Notwithstanding a moderate demand for Holland and Belgium, with fair arrivals off the coast, the demand for floating cargoes was limited. This week the London advices had their usual effect on the country markets. Every report was dull, and most were cheaper. Birmingham, Bury St. Edmunds, Leeds, Maidstone, Newcastle, and Uppingham were severally 1s. per qr. lower, but a reduction of 1s. to 2s. per qr. was more general, and at a few places the fall was as much as 3s., as at Louth and Sleaford. Liverpool advices noted a decline of 4d. per cental on Tuesday, and a further reduction of 2d. on Friday, equal to 2s. 6d. per qr. on the week. Edinburgh was 1s. to 2s. per qr. cheaper, and Glasgow 6d. to 9d. per boll down. Too little Irish wheat was offering at Dublin to lower prices, but foreign samples were in favour of buyers.

On the second Monday there was a fair supply of English samples, and another heavy arrival of foreign. The show of fresh samples during the morning on the Essex and Kentish stands was limited, yet business kept dull at last week's currency. The large foreign supply, consisting mostly of American qualities, then were 1s. per qr. cheaper to sell, and other descriptions, had they been forced, were quite as much down. With large arrivals off the coasts, there was a better demand for floating cargoes at the previous week's quotations. This week was a quiet one in the country, with very little change of values. Some places experienced an improved demand; among them were Boston, Gainsborough, Market Harborough, and Uppingham, while Wakefield and a few other markets noted an advance of 1s., but Bury St. Edmunds was 1s. lower, and others tended to decline. Liverpool, after losing 2d. per cental value on Tuesday, recovered on the following market. In Scotland prices were much the same as at Glasgow and Edinburgh. More firmness was evinced at Dublin, both in foreign and home grown samples.

On the third week there were increased arrivals, both English and foreign, yet the better accounts from the country as well as a foreign inquiry disposed some factors to ask 1s. more, which was occasionally paid, but eventually the market had a duller aspect and no general advance was quoted. The foreign trade found some clearance of inferior samples for export at full prices, but there was no improvement on the higher sorts. Floating cargoes went off quietly without change of values. Country advices this week were more decidedly improved. Spalding, Market Harborough, Rugby, Lynn, Stockton, Manchester, Hull, Leeds, Rotherham, Newark, and Salisbury were all up 1s. per qr.; Sleaford, Melton Mowbray, Louth, Thirsk, Birmingham, and Newcastle were all up 1s. to 2s., and Doncaster still more. At Glasgow and Edinburgh the improvement was 1s. per qr., with a moderate sale. The Irish markets again evinced more firmness, with prices rather against buyers.

On the fourth Monday there was a fair supply of English wheat, and a good arrival of foreign, in about

COMPARATIVE AVERAGES.

Years.	WHEAT.		BARLEY.		OATS.	
	Qrs.	s. d.	Qrs.	s. d.	Qrs.	s. d.
1866...	68,689	49 9	11,477	37 10	2,284	24 1
1867...	54,026	62 11	8,038	40 7	3,151	27 0
1868...	91,075	64 4	25,265	44 0	4,005	23 5
1869...	57,593	50 5	5,394	38 3	2,391	25 5
1870...	91,811	46 6	24,411	36 4	4,749	23 9

AVERAGES

FOR THE PAST SIX WEEKS:	Wheat.		Barley.		Oats.	
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Aug. 13, 1870.....	54	10	32	11	28	0
Aug. 20, 1870.....	54	7	33	5	25	10
Aug. 27, 1870.....	51	3	36	8	24	6
Sept. 3, 1870.....	49	1	36	2	25	9
Sept. 10, 1870.....	48	1	35	8	23	10
Sept. 17, 1870.....	46	6	36	4	23	9
Aggregate of the above	50	9	35	2	25	3
The same week in 1869.....	50	5	38	3	25	5

FLUCTUATIONS in the AVERAGE PRICE of WHEAT.

PRICE.	Aug. 13.	Aug. 20.	Aug. 27.	Sept. 3.	Sept. 10.	Sept. 17.
54s. 10d.
54s. 7d.
51s. 3d.
49s. 1d.
48s. 1d.
46s. 6d.

BRITISH SEEDS.

MUSTARD, per bush., brown 13s. to 14s., white	9s. to 10s.
CANARY, per qr.....	62s. 66s.
CLOVERSEED, new red.....	80s. 92s.
CORIANDEE, per cwt.....	21s. 22s.
TARPS, winter, new, per bushel.....	9s. 10s.
TRIFOLI, new.....	21s. 23s.
RYEGRASS, per qr.....	28s. 30s.
LINSEED, per qr., sowing 68s. to 70s., crushing	57s. 62s.
LINSEED CAKES, per ton.....	£11 15s. to £12 10s.
RAPESEED, per qr.....	70s. 72s.
RAPE CAKE, per ton.....	£5 10s. 0d. to £6 5s. 0d.

FOREIGN SEEDS.

CORIANDEE, per cwt.....	21s. to 22s.
CARAWAY, new.....	31s. 32s.
CLOVERSEED, red 5s. to 6s., white	68s. 72s.
HEMPSEED, small 42s. to 43s., per qr.....	Dutch 48s. 48s.
TRIFOLI.....	21s. 22s.
RYEGRASS, per qr.....	28s. 30s.
LINSEED, per qr., Baltic 56s. to 61s., Bombay	61s. 62s.
LINSEED CAKES, per ton.....	£11 15s. to £12 10s.
RAPE CAKE, per ton.....	£5 10s. 0d. to £6 5s. 0d.
RAPESEED, Dutch.....	68s. 70s.

HOP MARKET.

Weald of Kent.....	£3 5	£3 15	£4 10
Mid and East Kents.....	4 0	5 5	7 0
Sussex.....	3 0	3 10	3 15
Farnham and Country.....	4 10	5 5	6 6
Olds.....	1 0	1 15	2 10

POTATO MARKETS.

BOROUGH AND SPITALFIELDS.

English Shaws.....	70s. to 80s. per ton.
Regents.....	50s. to 100s. "
Rocks.....	40s. to 60s. "

PRICES of BUTTER, CHEESE, HAMS, &c.

BUTTER, per cwt.: s. s.	CHEESE, per cwt.: s. s.
Dorset..... 146 to 150	Cheshire, new..... 64 to 84
Friesland..... 130 134	Dble. Gloucester..... 60 72
Jersey..... 106 121	Cheddar, old..... 72 90
FRESH, per doz. ... 14 19	American..... 60 68
BACON, per cwt.:	HAMS: York..... 10s 11s
Wiltshire, green... 74 78	Cumberland..... 10s 11s
Irish, f.o.b. 74 78	Irish..... 10s 11s

POULTRY, &c., MARKETS.—Turkeys, 4s. to 7s.; Geese, 4s. to 8s.; Ducks, 1s. 6d. to 3s.; Surrey Fowls, 2s. 6d. to 5s. 6d.; Sussex ditto, 2s. to 3s.; Boston and Essex, 1s. 6d. to 3s.; Irish, 1s. to 2s.; Rabbits, tame 1s. to 2s.; Pigeons, 4d. to 9d.; Partridges, 6d. to 1s. 6d.; Hares, 1s. 6d. to 3s. 6d.; white Scotch, 1s. 6d. Eggs, best, 10s. per 120.

LONDON CHEESE MARKET, Sept. 22.—Since our last report there has been a moderate but steady demand for the best descriptions of Cheese. We have, however, found buyers more than usually difficult to please, especially in the

question of flavour. The supply of really clean Cheese (with quality) seems exceptionally small, and good prices can be made of this article (whether English or foreign) when obtained. Firm, sound, handsome lumps are wanted. Tender-edged, cracked, or soft, bulgy Cheese are avoided by nearly all buyers, even though offered at low prices. Inferior qualities of all kinds are at present almost unobtainable. Scotch Cheddar of prime quality and flavour are moderately saleable at about 68s. to 72s. Swedish ditto at about 64s. to 68s. American Cheese are in good supply, and rather slow demand at prices varying from about 52s. to 66s. Some of the primest Factory Dairies show more or less the effects of heat. The arrivals reported since last Thursday are 37,097 boxes.—CORDEROY AND Co., Mill Lane, Tooley Street.

CHICORY.

LONDON, SATURDAY, Sept. 24.

There has been a moderate inquiry, at about late rates. DELIVERABLE FROM WHARF IN BAGS, EXCLUSIVE OF DUTY. Harlingen ...£11 0 to £11 15 | Antwerp ...£ 0 0 to £0 0 Bruges 11 10 12 5 | Hamburg ... 0 0 0 0

BARK AND TANNING MATERIALS.

LONDON, SATURDAY, Sept. 24.

English, per load of 45 cwt. delivered in London.....	£ s. d.	Do. Sardinian.....	£ s. d.
13 10 to 14 0	Valonia, Smyrna.....	13 0 17 0	
0 0 0 0	Do. Camata.....	13 0 14 10	
5 0 5 0	Do. Morea.....	9 0 11 0	
5 0 5 0	Terra Japonica.....	9 0 11 0	
5 0 5 10	Gambier in bales.....	16 15 17 0	
5 0 6 0	Ditto free cubes.....	19 0 21 0	
0 0 0 0	Cutch, best Pegu.....	24 0 24 10	
8 0 8 17	Diri.....	11 0 13 10	
7 15 9 0	Myrabolans.....	10 0 17 0	
7 0 7 10	Sunach, Sicily, p. cwt. 20	0 21 0	

FLAX, &c.

Hemp, Petersburgh clean, per 100	£ s. d.	Colr yarn.....	£ s. d.
22 0 to 32 10	Junk.....	29 10 60 0	
20 0 0 0	Fibre.....	21 0 31 0	
20 0 0 0	Flax, Riga.....	29 0 36 0	
20 0 0 0	St. Petersburg, 12 head.....	75 0 0 0	
36 0 0 0	head.....	53 0 54 0	
53 0 65 0	3 head.....	44 0 45 0	
15 0 21 0	Egyptian.....	0 0 0 0	

ENGLISH WOOL MARKET.

CURRENT PRICES OF ENGLISH WOOL.	s. d.	s. d.
FLEECES—Southdown hogs..... per lb.	1 0	to 1 1
Half-bred ditto.....	1 2	1 3
Kent fleeces.....	1 1	1 2
Southdown ewes and wethers.....	0 10	0 11
Leicester ditto.....	1 1	1 1 1/2
Prime.....	1 4	1 4 1/2
Choice.....	1 2 1/2	1 3
Super.....	1 0	1 0 1/4
Combing, wether mat.....	1 2 1/2	1 3 1/2
Picklock.....	1 0 1/2	1 1
Common.....	0 11	0 11 1/2
Hog matching.....	1 4	1 4 1/2
Picklock matching.....	1 0 1/2	1 1
Super ditto.....	0 11	0 11 1/2

PRICE CURRENT OF GUANO, &c.

Peruvian Guano direct from the importers' stores, £14 per ton.	Bones, 27 0s. to 27 15s. per ton.
Animal Charcoal (70 per cent. Phosphate) £5 per ton.	Corporite, Cambridge, whole £3, ground £3 10s. per ton.
Suffolk, whole £2 10s., ground £3.	Nitrate of Soda, £15 15s. to £16 8s. per ton.
Gypsum, £1 10s. Superphosphates of Lime, 25 5s. to 26 5s. per ton.	Sulphuric Acid, concentrated 1 8 1/2 lb. per lb., brown 1 7 1/2 3/4 d.
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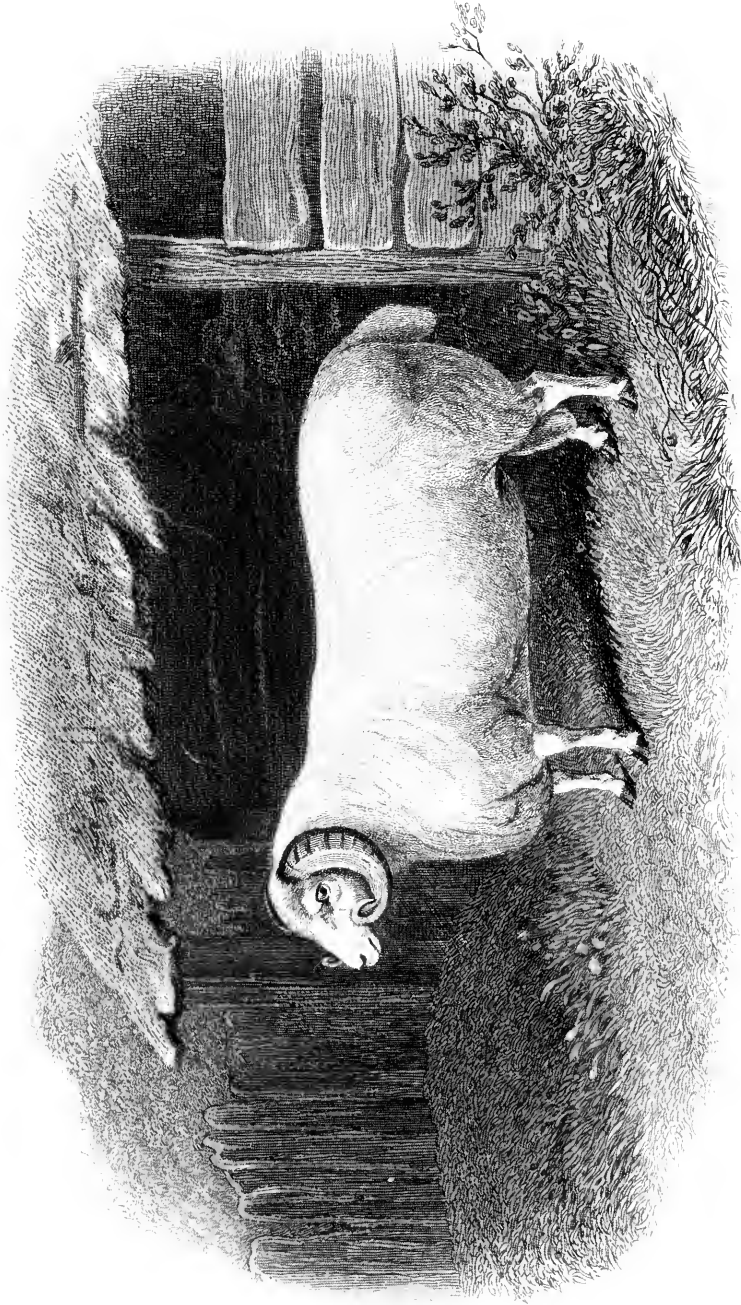
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"A. Road" I wiset. Ram.

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Mr. Staff.





THE FARMER'S MAGAZINE.

NOVEMBER, 1870.

PLATE I.

A DORSET RAM.

THE PROPERTY OF MR. HENRY MAYO, OF COKERS FROME, DORCHESTER.

This ram, bred by Mr. Mayo, took the first prize of £20 as the best yearling ram in the Somerset and Dorset horn class at the Taunton Meeting of the Bath and West of England Society and Southern Counties Association in June last; and the first prize of £20 in the shearling class of Dorsets at the Oxford Meeting of the Royal Agricultural Society of England in July. These are the only two occasions on which he has been exhibited.

At Taunton we said: "The strong point of the Taunton Meeting is no question the capital entry of Somerset and Dorset Horned sheep, where in every way some praiseworthy progress is observable. Indeed, those who know the breed best were by no means prepared for the extraordinary improvement shown in these sheep. So long as they managed to get a bit of fat on the loin and to have them ready early as house-lamb, little more was sought after. Now, however, they unite more size with more symmetry, set off as they are by those grand curling horns; and at Oxford, if we may augur from this home-show, the Dorsets and Somersets will well maintain their right to that distinction as a breed which the Royal Society has at length accorded them in the arrangement of the classes. Noticeably enough, at Southampton last year, although as handy, there were not in all a dozen entries of these sheep, whereas at Taunton there were upwards of twenty shearling rams in competition, with numerous commendations appended to the actual awards. Mr. Henry Mayo, who has given much attention to his flock, clearly understands not merely how to breed a sheep, but how to show him; and his rams were very artistically turned out. Smart, however, as is the winning shearling, Mr. Herbert Farthing's second was almost equally good; and in the smaller class of old rams, a sheep from Nether Stowey of fine character and size had a long way the best of it. There was a time when Mr. Danger was altogether too strong for his friends and neighbours, but his flock now in the hands of Mr. Bond can reach no higher than

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seconds or commendations." Again, at Oxford, we said: "The Dorset men offered a very poor front for their special classes, there being in all only a dozen entries against thirty at Taunton. The same sheep were here pretty much in the same places, although it was discovered when too late to tutor the judges, that Mr. Mayo's otherwise big, useful shearling had black eyes instead of white, and that his horns were not nearly so well curled as they should have been. And here of course arises the question as to the judges duly appointed being quite up to this branch of their business?"

In the West of England Society's own report, published some time subsequently to either of our own, Mr. Henry Fookes, as a sheep Steward, says that at Taunton, "Of Somerset and Dorset horns there never on any previous occasion had been such an exhibition in England. In the yearling ram class, twenty-one entries, Mr. H. Mayo took the lead with a sheep of wonderful quality, with good back and loins, and of great girth, but not considered 'quite correct' in his head and horns, in which latter qualities he was surpassed by Mr. Herbert Farthing's second prize animal, which lacked the fine touch of the premier ram." The judges of the Royal Show at Oxford report that "the Dorsets were few in number, but generally good in quality; the first prize ram and the first prize pen of ewes being especially meritorious." The judges of the horned sheep at Taunton were Messrs. F. Budd, Hatchwarren, Basingstoke, and Mr. H. Woods, Merton, Norfolk; and at Oxford Messrs. W. B. Canning, Elston, Devizes; R. J. Newton, Campsfield, Woodstock; and H. Thurnall, Royston, Herts—not one of whom, we believe, is a breeder of Dorsets; so that if they did go wrong over the eyes and horns this is scarcely to be wondered at.

The peculiar merit of the Dorset sheep is their dropping lambs as early as September, and these being fattened for the London market realize capital prices about Christ-

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mas time. Mr. Tanner says: "The lambs are confined in small pens, five or six together, and, after being suckled in the morning, the ewes are turned away to a piece of sheltered grass, on which they have turnips and hay given to them. About the middle of the day the ewes are brought back again to their lambs for an hour, after which they are again turned out for the afternoon, and on their return they remain with the lambs all night. Any ewes which have had their lambs sold are brought in between the meals and held whilst other lambs suck them,

Thus, by keeping the ewes well fed and the building clean and healthy, the lambs thrive rapidly."

The Dorsets have been very much improved of late, during which time Mr. Mayo's flock has been established—now about eleven years since. He does not consider the mutton is quite equal to the Southdown or Exmoor; but he thinks it very superior to any of the longwools, and also to many of the Hampshires. No breed, of course, will lamb so early, and when crossed with a Sussex ram, the lambs, he says, are second to none, the quality being so good.

PLATE II.

THE STAFF.

The Colonel is beating the other side of the hill, which would look to be a likely place for rabbits, if, as the tenant says, it don't carry much other kind of crop. The

group smacks a good deal of Ansdell, the grey garron more especially.

WHAT WE POUR INTO THE SEA.

BY CUTHBERT W. JOHNSON, F.R.S.

The amount of organic matters which are incessantly pouring into the sea, through our countless streams, we are not wont to regard with desirable attention. These finely separated organic substances are the richest portions of our soils. They may be usefully divided into two great classes: First, those matters which are conveyed to the sea in the streams of which they naturally form a portion, and, secondly, those substances which owe their presence to the operations of mankind. Over the first great class which includes the foreign matters contained in surface drainage and springs, we have not much power to reduce the amount, although even there something considerable is to be accomplished. Thus, in our warping operations, and even in some of our water meads, where the bright spring-water is employed as soon as it issues from the earth, portions of the earthy and other matters of the water are abstracted by subsidence or by the grasses.

It is not, however, so much what man *abstracts* from the drainage waters of the earth that is most worthy of our attention, but what he *adds* to, and thereby pollutes those streams, and thus impoverishes our soils with increased rapidity; and, unfortunately, he does this, certainly until very lately, with reckless indifference. Indeed, if this fouling of the waters did not create a nuisance—did not cause the waters to become offensive and even poison the fish, nothing would perhaps have been attempted by public authorities to stay the enormous impoverishing drain upon our land to which I allude. When, however, courts of equity interposed, and constituted authorities began to awaken from their torpor, a new light began to dawn gradually upon those commissioners. An inquiry was by slow degrees commenced as to the value of the fertilising matters hitherto flowing by the rivers into the sea. Calculations were made, and it was then found that the money value of the sewage pouring into the great waters was more than equal to that of the various artificial fertilizers which great fleets were bearing to repair this vast loss. And yet how vast is the value of those fertilizers may be seen from the following short table of the weight and the declared value of a few substances imported in the year 1869:

	Weight.	Value.
Bones	85,979 tons ...	£600,019
Guano	210,010 tons ...	2,640,983
Cubic Petre	906,694 cwt. ...	702,055
Oilcake	159,259 tons ...	1,361,580

If we inquire as to the value of the sewage conducted into our rivers, we have abundant evidence of its importance. To give one instance of the amount and value of the sewage conducted into the Thames by the high and middle level sewers of London (*Mr. W. Hope, Society of Arts, March, 1870*): These were examined by Professor Way and Dr. Odling. Samples were taken every half-hour day and night, at the Wick Lane Station, for 203 days; they were mixed together at regular intervals, and repeated analyses were made. The result was to show an average of about 8 grains of ammonia to the gallon of dry weather sewage, and the following table shows the quantities passing the station during that period, during dry weather only, from the 19th of March to the 7th October, 1865. The daily average being 27,431,000 gallons.

	Gallons.
Sundays	17,705,000
Mondays	27,877,000
Tuesdays	29,514,000
Wednesdays	30,187,000
Thursdays	29,487,000
Fridays	25,293,000
Saturdays	31,943,000

In rainy weather, during the same period, the average daily flow increased 33,288,000 gallons, the average for each day being

	Gallons.
Sundays	19,259,000
Mondays	31,184,000
Tuesdays	34,230,000
Wednesdays	36,516,000
Thursdays	38,562,000
Fridays	40,124,000
Saturdays	33,134,000

Unfortunately, added Mr. Hope, there is considerable doubt as to the population represented by this flow, and

there are also one or two disturbing causes to be taken into account whose magnitude cannot be defined; but this is certainly a higher per-centage of ammonia, and, therefore, a more favourable analysis than previous observations led one to expect, and it must be remembered that, when the low level sewer is completed, an analysis of its contents may be expected to show a very perceptibly higher per-centage of ammonia, owing to the denser population, and the great throng of business men of all classes in the lower parts of the metropolis during the day, many of whom represent a temporary addition to even the total population estimated for, as they reside beyond the metropolitan boundary altogether. Now, the estimated "dry weather" sewage of London north of the Thames is 120,000,000 tons per annum, while that portion of the rainfall which does not escape into the Thames and the Lea higher up by the "storm overflows," but reaches Barking, can hardly be less than another sixty to eighty millions of tons. It appears impossible, therefore, to place the manurial value of the stream with which, at a cost of £100,000 or £150,000 a-year, the Thames is polluted at Barking at less than £1,000,000 per annum, equal to about 8s. 8d. per head of the population. And this we may take as a pretty near approach to the unit of value in estimating the yearly worth of the sewage of a given population.

I have given this analysis of the contents of one section of the drainage matters of the metropolis, because that is the most populous of all our cities; but the organic matters thus wasted are not the only impurities committed to the Thames. The towns on its upper portion, as far Oxford, and those like Banbury and Newbury, on its tributary streams, all send their sewage into our Queen of Rivers. It is moreover to be remembered that a very large number of our populous places follow the example of the citizens of London, and commit their sewage, either directly or by some river, into the sea. And, again, as I have before stated, there is an incessant flow of organic matter from the land in those waters which have not been contaminated by man, and which substances may commonly be reduced in amount by passing the water over the soil. Let us here notice the result of some of those valuable chemical examinations upon which I have in another place recently dwelt. The warp water of the Trent, as it flowed on the land, was found by Herepath to hold in an imperial gallon 259 grains of foreign matters; after resting for some time, it then held as it flowed off the soil only 49 grains (*Jour. Roy. Ag. Soc.*, vol. xi., p. 100). The waters of the great rivers of the earth vary in the amount of their impurities, according to the season of the year—such as the water of the Nile, the Mississippi, and the Ganges. Mr. Everest found in a gallon of the water of the Ganges only four grains of insoluble matter in the first week in July, but 232 grains on the 8th of August. The mud deposited by the Ganges and the Nile is composed chiefly in 100 parts, after being dried, of—

	The Nile.	The Ganges.
Water	10.70	1.00
Organic matter... ..	2.80	2.75
Oxide of iron	13.65	6.00
Silica	42.50	69.50
Carbonate of lime	3.85	8.50
Alumina	24.25	7.32
Magnesia	1.05	

The water of the Thames, in certain states of the rainfall, is as impure as any of these. After all its insoluble matters have subsided, the Thames water contains, according to Dr. Letheby, about 23 grains of solid matters per gallon; the water of the Lea, about 23; that of the Colne, 21.3; that of the Trent, 50.16. The Thames water impurities were as follows—

Carbonate of lime	11.10
Sulphate of lime	4.78
Sulphate of soda ... ..	.48
Common salt	1.83
Oxide of iron, &c. ... ..	.76
Silicic acid	1.00
Organic matter	2.75
	<hr/>
	22.75

With such impurities contained in their waters, we need hardly feel surprised at the good effects they produce when employed in irrigation, but we may reasonably conclude that much more will yet be accomplished in that way. The water of our lakes is far more pure, but still even they contain matters which are food of plants. The waters of Loch Katrine contain only about 2 grains of foreign matters in a gallon, that of the Bala Lake about 5 grains; that of some of the Cumberland lakes only about 4 grains. Three of these waters were found by Professor Way to contain in grains per gallon:

	Haweswater.	Ulleswater.	Thirlmer.
Carbonate of lime.....	0.90	1.45	0.75
" magnesia.....	0.36	0.42	0.29
" soda.....	0.56	0.40	0.20
Chlorides of soda and potassium	0.40	0.69	0.77
Sulphate of soda	0.90	0.65	0.73
Oxide of iron, silica, &c.	0.25	0.20	0.05
Organic matter	0.62	0.35	0.77
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Total solid matter	3.99	4.16	3.61

The same degree of purity appears to belong to the great lakes of the Old and New World. In the American lakes, the greatest of all collections of fresh water, the same transparency is remarked.

When the members of Boards of Health and other corporations began to be convinced that there is a great money value in the sewage of a town, they were soon entangled in another grave inquiry, into which they were compelled to enter by injunctions from Courts of Equity, viz., how best to remove from the sewage its most noxious and most fertilizing impurities, so as to render it admissible into the adjoining stream. It was now that a bevy of schemers appeared, each provided with a better plan than any other yet known.

Almost all those gentlemen rested their proposals upon the use of some chemical substances, which precipitated the grease and other mechanically-suspended impurities of sewage, but had hardly any effect upon its chemically-combined substances, but in almost every case added to these substances, and thus still left the sewage injurious to the fisheries of the stream. The result, therefore, of all this class of schemes, into which some unhappy corporations have entered, has been a mere waste of the ratepayers' money. They were the results of very imperfect information, were not founded upon Dame Nature's suggestions, which are ever the wisest and most secure.

Two of these great hints of her ladyship have, however, been successfully adopted, and bid fair to be generally employed in the deodorization of sewage, viz., 1st. The irrigation system, which, I take it, is by far the best in densely-populated districts; and, 2ndly, the earth-closet made, adopted since the creation of the world, by every cat, which appears to be only suitable to small collections of houses, barracks, lunatic asylums, and such other public institutions, where the most systematic removal and renewal of the earth can be ensured. On a large scale the nuisance would be intolerable. It was in vain that the Parisians struggled on upon the system of a daily removal of the excreta, for which they provided separate receivers from those which held the other por-

tions of the house sewage. They for some time adhered to this plan, tempted by the considerable sums of money paid to the authorities of Paris by the contractors, who managed the removal of these in the most careful manner, but they were compelled at last to abandon the system.

We are then to examine, 2ndly, the other mode, which appears to be the only one adapted to the wants of large towns.

It is too frequently ill-understood what those requirements are. With most persons, the contents of the water-closet are alone regarded; the liquids flowing from the sinks, the baths, the streets, and manufactories which are inadmissible into streams are deemed of no consequence, or if at all thought of, are to have, it is gravely suggested, special sewers, constructed for their use. Now it is certain that by no known process can *all* the sewage of a large town be so well and so profitably provided for as by the irrigation of land—a mode which is not only to be depended upon in all seasons, but, far from being an expense, is profitable to the town.

At Croydon, where I reside, we have two farms irrigated with sewage, both farms we chiefly rent at about £10 per acre—the one at Beddington (about 450 acres) is sublet for the present, and from which, therefore, the Board of Health derives little or no profit; but the smaller farm at Norwood (about 36 acres), which is on the London basin clay has been in our own possession since Lady-day 1868. In that year our expenditure for labour was £114 18s.; the receipts for the grass, &c., £913 18s. In the next year, 1869, the expenses for labour were £264 18s. 6d.; the receipts for the grass and other produce of the land £742 9s.

At the Lodge Farm at Barking, which consists of 207 acres, of which 112½ acres are under sewage, the balance in the year ending August 31, 1870, of the valuations and receipts was £1,232 1s. 5d. in favour of the occupiers.

Upon the whole, therefore, we may fairly conclude with Mr. R. Rawlinson, when at the meeting at the Society of Arts, after referring to some of the difficulties of the sewage utilization, he remarked that "There are two sides to the sewage shield, as to most others, but he believed, nevertheless, that in the proper application of this system there was a mine of wealth, by bringing common sense to bear, and avoiding blunders which had already been committed. On the other hand, in many places it had become a sheer necessity to do something of this sort, in order to avoid poisoning the rivers, and would be more and more so every day. The man who could solidify sewage and make it a portable manure, could invent perpetual motion and square the circle. The most perfect chemical researches had yet failed to do more than take out one-seventh of the valuable properties of sewage in a solid form; and taking a ton of sewage as being worth 17s. 6d., and treating it in any possible way—and he spoke from having been associated on the commission with some of the first chemists of the day—the result would be to take out solid matter to the value of 2s. 2d., and leave 15s. 4d. worth to go away with the effluent water, which might nevertheless appear perfectly pure and bright. On the other hand, when liquid sewage was passed through twenty inches of soil, it had but the barest trace of these valuable salts left in it. This, therefore, was the only true and profitable chemistry."

The loss of organic matters by the drainage waters is not the only source of impoverishment to the soil. The addition of those foul waters to our rivers is destructive

to their fish. And this is no trifling injury to our supply of food. I have on another occasion remarked: "Few persons indeed are now aware of the loss which has long been sustained by the owners of our rivers from the fouling of their waters. To give only a single instance—at the commencement of the present century the River Thames abounded with salmon, and those of the finest quality. 'Thames salmon' then bore a higher price than that obtained from most other streams, and so copious was once the supply, that in the olden time it was usual to insert a clause in the indentures of London apprentices, that they should not be fed upon salmon more than a certain number of days in the month. Then came the time when the river water became impure. Not only was the population enormously increased, but the metropolis became well sewered, and its vast network of drains poured their huge contents (by the authority of an Act of Parliament) into the river. Then gas works were made, and their ammoniacal water still further poisoned the stream. Against these impurities the salmon could not contend; they gradually, and at length totally, disappeared from the waters of our queen of rivers. In other streams great damage has been caused to salmon and other fish, not only by the fouling of their waters, but by the interruption of the fish by dams, and the abolition of the ladders, or water-courses, which formerly facilitated the course of the fish from the sea to their spawning grounds. Of late, however, considerable efforts have been made, and successfully too, to purify the waters and restock our rivers with salmon and other fish. Government Salmon Fishery Inspectors have been appointed, Acts of Parliament have been passed to protect the fish, and breeding ponds established. There is, indeed, great reason to believe that both our river and our sea fisheries may be rendered far more profitable and productive than at present, and that a much greater amount of fish may be produced, even in enclosed waters, than the reader would at present deem probable.

It is true that we to some small extent recover from the sea by its fish what our streams convey into it. By the report of her Majesty's Commissioners to inquire into our Sea Fisheries, we learn that the weight of what is known at Billingsgate as *prime fish* only daily consumed in our island is fully equal to 300 tons—by the term *prime fish*, merely including such fish as salmon, turbot, cod, soles, &c. And then again, to a smaller extent we procure from our rivers a much larger supply of fish than is commonly understood. For instance, the supply of salmon to the London market averages from 1,500 to 2,000 tons per annum. But after making every allowance for the fish we receive from our streams and from the sea, the amount recovered bears no comparison to the amount of organic matters we pour into them. The solid matters contained in the sewage of the metropolis alone, has been estimated to be equal to about 1,500 tons per day.

These facts can hardly be too generally understood. They are such as all classes of the community are deeply interested in; not only the owners of our river fisheries, or the agriculturist, as diminishing the produce of their waters, or their land, but to every one who regards the sanitary condition of his dwelling. It will indeed be self-evident to the reader that, by every improvement that can be *profitably* introduced into the utilization of our impure drainage waters, we strengthen the hands of those who are labouring to improve the health and the general comfort of their fellow creatures.

A NATIONAL RATE.

Notwithstanding that the war continues naturally enough to be the leading topic amongst all classes and at all assemblies, we are enabled to still take up our Echoes from the Autumn Meetings at some length, and, as it is to be hoped, not without some advantage. There has been, indeed, a deal of useful suggestive talk at these dinners, while the Farmers Clubs, like the Hexham, the Blandford, the Dorchester, the Winfrith, and others Eastern rather than Westward, have been opening the after-harvest session with something beyond their average strength. Amongst much that is strictly practical a few semi-political questions, as they would yet seem to be considered by some, like the Game Abuse, Tenant Right, the Education Bill, and Local Taxation, have often been touched upon, the course of action being generally pretty clear alike to the orator and his audience. If, however, there be a matter that nobody from the Government downwards has fairly grappled with or mastered it is, no doubt, that somewhat intricate business of Local Taxation. The further discussion of this subject is nevertheless gradually developing a proposition for which it is as well that the country should be prepared. Sir Massey Lopes suggests that the magistrates in Quarter Sessions assembled should "Simultaneously petition the Legislature to relieve them of some of those burdens which are national rather than local in their objects, and which equally concern and interest every class in the community." And accordingly, in his own county of Devon a notice has been given to the effect: "That, inasmuch as very many of the charges at present paid by county rate (*e. g.*, police, lunatic asylums, militia stores, gaols, vaccination, registration, &c.) are rendered necessary, not for the benefit of one particular class, but of the community at large, it is both just and politic that those charges should be more largely supplemented, if not altogether defrayed from the national exchequer;" while for Lincolnshire the notice runs on to "the present poor-rate, inasmuch as it bears exclusively and unjustly on incomes arising from real property," although the remedy in this case is not quite so decidedly put. Nevertheless the ice is broken, the thin end of the wedge inserted, and at Shepton Mallet only the other day Mr. Genge Andrews proceeded to drive it home after this fashion: "An association had been established in London, with the present Lord Mayor, Mr. Besley, at the head of it, for the readjustment of the poor-rate question, and for a national poor-rate. So strongly did he feel with reference to the movement in London, that he had written to Mr. Besley to tell him he should be very glad to become a member of that association for the whole being cast upon a Common Fund—a national rate for England and Wales. For it was utterly impossible to regulate the operation of a tax levied on personal property for small area, such as a union; and you could only properly apportion it for England and Wales."

We here come to something really tangible at last, and the point now to ascertain is, how ready the country would be to adopt a system of national rating, or, to put it yet more plainly, a national poor-rate? Nothing, we believe, would be more impolitic or more unpalatable to the general body of farmers, as nothing would threaten to so certainly increase the expenses of a county or a district. Anything like a wholesome check would straightway be removed, as everybody would be spending somebody else's money.

What could be the possible, or at least probable, good to arise from remodelling the management of the county finances if, as Sir Massey Lopes says, "these charges be defrayed from the national exchequer"? That which one county saved the adjoining one might spend; and as ratepayers would feel they had little real interest or control, the expenditure might be left with the magistrates as heretofore. The same argument applies, of course, with still more force, to the administration of the poor-rate. The establishment of unions freed the labourer from the fetters of a parish settlement, but by no means discharged the district of its duty to itself. As, though, will be seen from our Echoes Mr. Andrews was at once answered in a very good practical speech from a county magistrate, Mr. Clerk, who thus took up the proposition for national rating: "They were to pay out of the Consolidated Fund, they meant? Very well, who was to have the management of that fund? They said, local bodies. He said, it would never work; they would never get anyone to put it in the hands of local boards. He thought there were a very large number of classes at present massed together under the poor-rate which might come on the Consolidated Fund with advantage; but that was a very different thing from taking the relief of the poor and putting that on the Consolidated Fund. The militia and the police, he thought, they might put on the Consolidated Fund—those were not poor-rate, they were county-rate. But what did they amount to in the end? Why a mere nothing."

But even the system, as it is, that is under union management, would look to be getting somewhat lax. A London evening paper, *The Pall Mall Gazette*, has just quoted from Mr. Sewell Read's evidence on this very business of Local Taxation as to the administration of out-door relief: "It has an immense influence upon the habits of the poor, and if they could not so frequently run to the Board of Guardians on the most trivial occasions, and know that they would get our-door relief, they would be more provident than they are." And, again, before the same Parliamentary Committee, Captain Dashwood, a tenant-farmer, a poor-law guardian, and a magistrate of the county, replied, in answer to the question "With regard to out-door relief as administered now by the occupiers chiefly, do you think there is a tendency to administer the poor-law in the direction of relief in aid of wages, and is that tendency growing?" "Not directly, but indirectly; a great deal of out-door relief must lower wages. A year ago, only, I heard the vice-chairman of a board of guardians say that he would rather have high rates than high wages." There is something very suggestive in such evidence as this; but if with union rating the management has become so careless or indifferent, so ready to expend money in this way, what might we expect under a system of national rating, where no one would feel any precise pressure, nor, consequently, any inducement to economise? "Taking all England, we are now spending about £3,700,000 a-year in out-door relief, mostly in money. This is 28 per cent. higher than it was eight or nine years ago." Of course the first aim should be to reduce our expenses, but is it likely, we repeat, that we should do so, under a system that would only give us the less encouragement to look after our own affairs? The result, we believe, would be that there would be less inquiry, less interest, and less activity amongst the ratepayers, and that the whole work would gradually come

under Government direction. Our contemporary, however, goes yet further, and interprets the declaration of the Oxfordshire vice-chairman in this way: "It means, when farm work is plentiful give the labourer pay just sufficient to keep body and soul together; when farm work is slack or stopped, leave that function to the doles of the relieving officer. The English farmer, represented by this estimable vice-chairman, wants no bold peasantry to till his lands. The low-waged helot of the parish pay-table better suits his purpose." It must be borne in mind that a London Journal ventures to say so much on the evidence of men like Mr. Sewell Read and Captain Dashwood, or rather on the opinion quoted by one of them. It must be manifestly unjust to condemn a whole class on the word of such an exception as we take this same vice-chairman of guardians to be, but were we to throw the maintenance of the poor upon a general fund, his doctrine might find more followers than it does at present. A year or so since, in a discussion at the Farmers' Club on Pauperism and Vagrancy, Mr. Congreve, a clergyman, said, "What

the country wanted was a national rate," and this was met with very general cries of *No! No!* while Mr. Trask, who read the opening paper, and who took the meeting very much with him, held it to be "of the highest importance that the area of taxation should not be extended beyond the area of administration." This sounds like very practical if not political economy; while at a meeting of the same Club some years previously, Mr. Smythies said, under national rating there might, no doubt, arise "a dim consciousness that you were dipping your hands in other people's pockets, and not in your own." This is a very graphic illustration of what might ensue; and if we are to arrive at a proper adjustment of Local Taxation only by throwing everything on one common charge, it behoves us to consider very seriously what we might gain and what we might lose by a change of system that so far has found few practical men to give it their support. A National Rate is of course not a new notion to the farmer, but like the man at an awkward place with hounds, "the more he looks the less he likes it."

THE HEREFORD SHOW AND FAIR.

The untoward season and the shortness of keep have naturally done much to hasten the falling fortunes of Hereford, and whether for its annual show, its "periodical" sales, or its once famous fair, the gathering would now seem to be scarcely worth a visit from those either far or near. The comparatively few lots of half-starved steers pitched in the streets commanded but little custom at any price, and, save half-a-dozen or so good beasts from Lawton Bury, we neither saw nor heard of anything particular. Then, beyond the entry of young bulls, the show was more meagre than ever, while the elements declared against the "periodical" auctioneering on the second day, and many lots which were not bought in went often for what a butcher might be induced to offer. According to the advertisement, and the results, a dozen or so of "first-class cows," and another dozen of calves from herds of "great celebrity," reached to an average of 21½ gs. for the dams and of 12 gs. for the produce. Some of the bulls did better, although whether these were "on sale or return" we cannot undertake to say. A couple of yearlings from Mr. W. Tudge's herd, one of which had been commended in his class, were knocked down, Collegian at 56 gs., and Sir Edwin at 40 gs.; while Mr. Thomas Rogers' best yearling, Student, was bought in at 90 gs., as a hundred was asked for him in the yard. Another yearling, Mr. B. Rogers' Patentee, though merely commended by the judges, went up to 120 gs. at the hammer, the highest figure of the day; whereas the third prize, Pearl Diver, reached to only 38 gs. by public appraisal, and was then bought in. Mr. Roberts' first prize old bull, King Tom, was knocked down for 95 gs.; Mr. T. Edwards' Leominster 3rd, a Royal winner at Manchester and Oxford, for 42 gs.; Tomboy, from the same herd, but bred by the late Mr. Monkhouse, for 41 gs., and the Wintercote yearling Sir Robert, for 40 gs. Mr. Harding's two-year-old Count Fosco, another winner at Oxford, made but 35 gs., and Mr. Hill's President, who was next best to Fosco, in July, 40 gs.

The public, probably, saw more of the judging than it ever previously had any opportunity of doing at Hereford, for the judges, of cattle, that is, were noticeably deliberate if not undecided in their movements, and it really looked at one time as if the placing of the yearlings would have to be adjourned. Their grave, not to say tedious con-

sultations, only served to show how amusingly primitive are the arrangements of this meeting. No attempt is made to map out a ring, although this might easily be effected, but the several classes are put into a corner or siding, here or there, just as it happens, while the entries are brought out, without any visible numbers, but with merely a whisp of curl paper twisted into the head-stall, of which secret cypher the attendant herdsman generally knows no more than the inquiring stranger. And when a decision actually is arrived at no ribbon is handed over, no sign whatever is made for the information of the lookers-on, but the judges whisper results to the director, and in some half hour, whole hour, or couple of hours, as the case may be, the placards are put up. And this in Herefordshire is facetiously termed public judging—an admirable system, under which, to really understand what is going on, you have literally to take the bull by the horns.

In the bull, cow, and offspring class, however, Sir Hungerford, wearing well, fairly placed himself, as his fair companion is a small, mean cow, and beyond Mr. Edwards' lengthy good Tomboy there was not much to encounter. Mr. Drinkwater's were a terribly coarse lot, and we like Mr. Morris' Royal Stow only the less the more we see of him, as surely so indifferent an animal could never have had any pretensions to a place in good company. There were twenty-two yearlings entered from the herds of Mr. Richard Hill, Mr. Philip Turner, Mr. Benjamin Rogers, Mr. Thomas Rogers, Mr. Thomas Roberts, Mr. Tudge, the Reverend Archer Clive, Mr. Evans, of Swanstone, Mr. Taylor, of Showle, Mrs. Woolley, Mr. Rawlings, of Stoke, and Mr. Edwards, of Broadward. And as these were all, or nearly all, sent, the interest or the positive success of the meeting centred here. In fact, but for the yearlings, the Herefordshire Society might have amalgamated with Worcestershire and Gloucestershire, in which counties there are in every other respect much better meetings; and as even the Hereford show does not row lead on to much business in the way of sales, it is a grave question whether it would not be all the better for the breeders of the white faces that they should go away from home occasionally. In plain truth, as at present conducted, the Herefordshire Agricultural Society is fast wearing out, as the very county

people do not seem to care much about it. According to *The Midland Counties Herald* of Thursday: "There no doubt exists a great deal of apathy with reference to the show, and this is particularly manifested with reference to the staple productions of the district, viz., cider, perry, and hops. Only three entries were made in the two classes for these beverages; two of these coming from Mr. Apperley, the gentleman who kindly offered the second prizes, and who was awarded both the firsts offered by Lady Emily Foley. In hops, too, there was but little competition, and the prize was again secured by Mr. W. Taylor, of Thingehill." The same report says: "The few stands of implements do not call for special comment. No prizes were offered but the chaff-cutter of Messrs. Richmond and Chandler, the straw elevator of Mr. Lewins, the saddlery of Mr. Jones and Mr. Jennings, the liquid manure cart of Mr. James, and the plough of Mellard's Trent Foundry Company were favourably noticed by the judges." The *Hereford Journal* says: "The entries for the cider and perry, together with the money amount of the premiums offered, are and were simply a disgrace to the county;" and again, "it is a pity that our Society is so poor that it could not afford to give a prize for miscellaneous implements." Beyond this we can only say that Messrs. Richmond and Chandler's representative assured us that the charges were proportionately higher and the business less than at any meeting he attended, and that his firm would never be at the trouble or expense of sending again. We gather thus much and more of how few are the entries of sheep, how indifferent the horses, and how scarce the pigs, whilst the judges are posing and re-posing, viewing and re-viewing the yearling bulls. They do not look to work with much method, while the spectators hazard all sorts of surmises as to which they may be taking to and as to what that may be! If the aim of the management were to keep the public as much as possible in the dark as to all that were going on, this was well seconded by the somewhat systemless system by which a decision seemed to be arrived at. However, to cut a very long story short, the best yearling was eventually pronounced to be Mr. Rogers' Student, a son of those two famous prize cattle, Battenhall and Silk, and himself the reserve and highly commended calf at the Royal Oxford Show in the summer. And a very clever, useful, and compact young bull Student is, not remarkably for mere size, but very true in his frame and taking in his appearance. As Mr. Yeomans, one of the judges, candidly says of him in the *Journal* of the Society, "he bids fair some day to be placed in a higher position than at Oxford;" and this promise has already been realized, as no question Student was one of the best young bulls at Hereford. But beyond this it would not be safe to follow the award, as there were probably half a dozen better animals in the class than the second prize, which has neither symmetry, style, nor quality in his favour. Mr. Turner, of The Leen, showed a very handsome taking young bull, out of the same cow as his two-year-old heifer, but this was merely commended, though sold as he stood for 70 gs.; while the 120 gs. Patentee, as purchased at that figure by Mr. Tudge, did no better! Again, Mrs. Wooley's highly commended entry, a wonderfully good growing calf, was surely better at most points than either the second or third prizes; and, indeed, we have little faith in the line taken here being very closely followed hereafter. It was on the whole and all things considered a very good class, but the wretched arrangements, the want of numbers and the want of room, made anything like a proper examination of the several animals when out almost impossible. The two-year-old or yearling-off bulls were not so good, although Count Fosco and

President, the second and third prizes at Oxford, now got no higher than commendations, but they are neither of them beasts of any remarkable merit, their main advantage as show stock being that they were some months older than any of their competitors. The best bull was no doubt Mr. Williams' first prize, also with some advantage in the way of age, but a thick, deep, wealthy animal, and altogether a fine specimen of the more modern Hereford. Still, however, the handsomest Hereford is Battenhall, wearing wonderfully well and preserving all his good looks at eight years old; and Battenhall, as some people said, for the first time in his life was now placed second—to Mr. Roberts' King Tom, who should the rather be called King Dick, as he is as hump-backed as Richard the Third, although but for this eye-sore a very grand bull, particularly good to meet, and with plenty of quality, a very mountain of good meat. He rather oversized the neater and truer Battenhall, and the decision was more of a butcher's than a connoisseur's after all. The class of yearling heifers was deservedly commended, and no question there was not a bad pair in the entry. In fact, the yearling bulls and yearling heifers may be said to have saved the show. But Mr. Arkwright had a great pull here with three couple for the judges to choose from, and all of these high-bred and good looking. Indeed, the Hampton herd would have had it all to themselves but for Mr. Evans, of Swanstone, who sent in the only two yearling heifers he has, and with these took the second prize. One of these was the best calf at Oxford, where we spoke of her as "perhaps the best of all the heifers, straight, clean, and handsome, without being overdone with mother's milk," as she is still fulfilling her promise, and growing into a sweet, if not very large animal. Of course, with only another to pick it was difficult to match her, and they were not much of a pair. The same thing occurred, though not with the same result, with the two-year-olds in couples, where Mr. Tauner had two as like as peas, and of a very nice useful sort, too; while it was announced, perhaps, rather too loudly, considering the hole and corner where the judges were at work, that one of Mr. Philip Turner's was the handsomest animal in the yard, and that she was already sold to go to Australia. This, as we take it, is the sister to Leopold, and a lovely heifer she is, particularly forward, if a trifle short in her quarters. But there was not much to cavil, and her companion was naturally not equal to her in merit. The judges, as a consequence, did not agree, and Mr. Walker being called in went at once for the Pembridge pair, as "only look at their heads," a grand point certainly. But if there be any virtue in pairs as pairs, as were we to judge cattle, as a houndsman might an entry in couples, then the Frodesley Ladies were far away the most "sorthy." Mr. Evans' highly-bred steers have had nothing to eat, for they have no turnips at Swanstone, and are so about to grind down the apples to mix up with the cattle food, a fact that will probably cause no little surprise to the county correspondent of a contemporary. The Showe two-year-old steers were as good-looking and better done by, but of course the season told against any great display in this way; and there were only one lot of breeding cows, from Frodesley, with two or three very sweet animals amongst them, although the judges would give no more than a second prize. The fat cow class included two very handsome animals, Mr. Rogers' Silk and Mr. Hill's Excelsior, but they were neither of them so fat as Sir Joseph Bailey's cow, which accordingly took the prize, although she is so terribly faulty and unsightly about her quarters that many judges would never have looked at her, in such company at any rate. There were but two fat steers in the class, but the entry from The Leen is full of style and

quality, and needs only to be a little riper to make his mark hereafter.

There were seven classes of sheep, and in all eleven entries in the seven classes! Still these sheep were almost generally good, and the prizes deservedly awarded. Mr. Tanner showed some neat but hardly-looking Shropshires, Mr. Downing some very nice Ryelands, Mr. Davies some stylish Cotswolds, and Mr. Jowitt some good speckle-faced longwools, the particular breed of which was not so clear. Mr. Pulley also exhibited some Shropshires, as at Lower Eaton, close by, they grow Shorthorns and Alderneys, and anthing but White-faces. In the show proper there were seven pigs, the best of which was declared to be a plain hungry headed white boar from Moccas; although amongst the extra stock Colonel Fielding entered half-a-dozen as good bacon pigs as we ever saw together. These are of the white, not over large breed, and so with quality rather than coarseness to back their many other good points in the way of length and depth, good collars, and kindly heads. So good were they that the judges might fairly have laid out all their extra money over the pen.

The two prize "nags" were the main credit of the horse show. Mr. Bosley's chesnut three-year-old, by His Excellency, is a stylish powerful three-year-old filly, which should grow into a hunter; while the varmint, but rather common looking old Mermaid, has won prizes over a country as well as in a show-ground. The best cart stallion was a light-bodied shelly grey, that was kept as closely covered in, and boxed up, as if he had been the light of the harem, or, a penny peep-show pig with two heads. In fact it is too much the fashion here to cover up the animals, bulls and all, as though they were hot-house plants rather than farm stock.

The chief topic of conversation at the dinner was, naturally enough, the unsatisfactory condition into which the show has gradually drifted. Like Falstaff, though the means be small the waste is great, or at least, it was said, the expenses are heavy. If the Society will not amalgamate with others it would be manifestly impolitic to change the time of the meeting; although its conduct requires thorough revision. As an exhibition to attract the public it is made the least rather than the most of.

PRIZE LIST.

JUDGES.—CATTLE: F. Evans, Old Court, Bredwardine; J. Moore, Ham Castle, Clifton-on-Teme, Worcester. HORSES, SHEEP, and PIGS: J. Walker, Knightwick, Worcester; A. Dowle, Bernithon, Ross. The four judges acted together over extra stock, cider, and hops.

CATTLE.

Bull, cow, and offspring.—First prize, £10, J. H. Arkwright, Hampton Court, Leominster (Sir Hungerford and Lady Leicester); second, £5, T. Edwards, Wintercott, Leominster (Tomboy and heifer). Highly commended: J. Morris (Stow and Pleasant).

Bull, calved on or after the 1st July, 1869.—First prize, £10, T. Rogers, Coxall, Brampton Bryan (Student); second, £5, T. Roberts, Lawton Bury, Pembridge (Kingcraft); third, £2, R. Hill, Orleton Court, Ludlow (Pearl Diver). Highly commended: Mrs. Caroline Wolley, Weston Court, Pembridge. Commended: P. Turner, Leen, Pembridge (Leopold); Benj. Rogers, The Grove, Staunton-on-Arrow (Patentee); W. Tudge, Adforton, Leintwardine (Sir Edwin).

Bull, calved on or after the 1st of July, 1868.—First prize, £5, J. Williams, St. Mary's Kingsland; second, £3, J. Harding, Bicton, Shrewsbury (Noble Boy). Highly commended: T. Edwards (Sir Robert). Commended: J. Harding (Count Fosco); and R. Hill (President).

Bull, calved previous to the 1st of July, 1868.—First prize, £5, T. Roberts (King Tom); second, £3, T. Rogers (Battenhall). Highly commended: T. Edwards (Leominster 3rd).

Pair of heifers, calved on or after 1st of July, 1869.—First

prize, £5, J. H. Arkwright; second, £3, H. R. Evans, jun., Swanstone Court, Leominster (Lady Oxford and Gentle 5th). Highly commended: J. H. Arkwright. Commended: John Harding (Lizzie Jeffreys and Red Dahlia); J. H. Arkwright; P. Turner; and J. Williams. The Class Commended.

Pair of heifers, calved on or after 1st of July, 1868.—First prize, £5, P. Turner (Butterfly and Venus); second, £3, R. Tanner, Frodesley (Lady Milton and Lady Frodesley). Highly commended: J. Morris, Town House, Madley (Chignon and Beautiful).

Pair of steers, calved on or after 1st of July, 1869.—First prize, £5, J. Williams; second, £3, J. Price, Court House, Pembridge.

Pair of steers, calved on or after 1st of July, 1868.—First prize, £5, W. Taylor, Showle Court, Ledbury; second, £3, J. Price.

Lot of breeding cows or heifers, not under three years old, that have had a calf within six months.—Second prize, £5, R. Tanner, Frodesley, Dorrington, Salop (Queen, Marin, Linnett, Symmetry, and Spring Flower).

Fat cow or heifer.—First prize, £5, Sir J. R. Bailey, M.P., Glanusk Park, Crickhowell (Lady Alice). Highly commended: T. Rogers (Silk); Rich. Hill, Orleton Court, Ludlow (Excelsior).

Fat ox or steer.—First prize, £5, P. Turner, The Leen, Pembridge. Commended: W. Dew, Kivernoll, Much Dewchurch (Charley).

SHEEP.

Pen of 20 Shropshire Downs, or short-wooled breeding ewes, under three years eight months old.—Prize, £5, R. Tanner Frodesley, Dorrington.

Pen of 20 short-wooled whitefaced breeding ewes, under three years and eight months old.—Prize, £5, J. B. Downing, Holme Lacy, Hereford.

Pen of 20 long-wooled breeding ewes, under three years and eight months old.—Prize, £5, J. Davies, Webton Court, Madley.

Pen of five yearling wethers (long wool).—Prize, £5, T. Jowitt, The Old Weir, near Hereford.

Pen of five yearling ewes (long wool).—Prize, £5, Thomas Jowitt.

Wethers, short wool (cross-breeds not excluded).—Prize, £5, J. B. Downing.

Ewes, short wool (cross-breeds not excluded).—Prize, £5, R. Tanner.

PIGS.

Boar, under two years old.—Prize, £3, Rev. Sir G. H. Cornwall, Bart., Moccas Court, Hereford. Commended: E. King, Westhide, Hereford.

Breeding sow, in, or with pigs, of the large white breed.—Prize, £5, Lieut.-Colonel Feiden, Dulas Court, Hereford.

HORSES.

Cart stallion.—Prize, £5, M. J. Imms, Twyford, Callow, Hereford (Young Callow). Commended: J. James, Gwinllas, Llanbadarn-fynydd, Radnorshire (Invincible).

Three years old colt, gelding, or filly, suitable for hunting purposes.—Prize, £5, J. Bosley, Lyde, Hereford.

Nag mare with foal at foot.—Prize, £5, S. Smith, Woodmanton, Hereford (Mermaid).

Cart mare with her foal at foot.—Prize, £5, J. Morris, Town House, Madley (Bounce).

CIDER AND PERRY.

Dozen of cider, made by the exhibitor, and from fruit grown on land in the exhibitor's occupation.—First prize, £2 10s., W. H. Apperley, Withington, Hereford; second, £1, Wm. Taylor, Showle Court.

Dozen of perry, made by the exhibitor, and from fruit grown on land in the exhibitor's occupation.—First prize, £2 10s., W. H. Apperley.

HOPS.

Sample of hops grown in the county of Hereford.—Prize, £5, W. Taylor, Showle Court, Ledbury. Highly commended: W. Taylor, Thingehill Court, Hereford.

EXTRA STOCK.

First prize, £2, Lieutenant-Colonel Feiden, Dulas Court, Hereford (six bacon pigs); second, £1, H. Gibbons, Hampton Bishop, Hereford (bull, Grateful); third, 10s., J. Loveridge, Daffaluke, Ross (ram).

At the dinner, Mr. WREN HOSKYNs, M.P., said that the dry season we had had this year—preceded, as it had been, by several seasons of extraordinary drought—had been something hardly ever witnessed before in this country. He thought he could say, without any affectation of modesty, that he was one of the first who went into the subject of deep draining. He had had the satisfaction of draining four fete deep, from 1,400 to 2,000 acres, in which a tile had never been placed. He was then thought to be a most venturesome man, as a tile had never been put deeper than three feet before. But if the seasons we had had for the last four or five years were to continue, it would become a serious question to the agriculturist how to obtain a supply of water. If we looked at the immense value of the turnip crop—at the loss to the country not to have that most useful and valuable crop, upon which so much depended—he thought he should not be considered as going further a field in a venturesome proposition than he was in placing the draining-tile four feet deep, if he said he felt that the streams and rivers which we possess must be made to contribute to the support of that crop upon which we mainly depend. It would be no great feat for an engineer to raise water from that noble river which he had been passing by for eight miles from Mr. Stallard's house. It only required a little energy, perseverance, ingenuity, and love of agriculture to make our streams and rivers conducive to the prosperity of agriculture, while we should still have the pleasure which we now derive from them. If that were done, it would make a great change in our system of agriculture; and he felt that something must be done if our turnip crop were to be continued. He had been through the show, and although they could not congratulate themselves upon its being a large show, there were many excellent animals in the yard. Still, he must confess he should like to set his eyes upon some other animals than the Herefords. There might be some good reason for the existing conditions; but he should certainly like to see a little more competition in kind as well as in quality.

Mr. GREENLY said: With regard to Mr. Biddulph's remarks as to the late time of the year at which the show was held, he knew that there were a great many gentlemen in the county, about the county, and some in that room, who were inclined to hold it at a different time, but he protested most firmly against any alteration being made. As an old Herefordshire farmer, and as a Herefordshire breeder, he said that if they knocked on the head Hereford October fair they would do more harm than anything that could be. He strongly urged them to keep the show in connection with the October fair. Winter was coming on, and they knew what they had to prepare for; and he maintained that it was a very good time to hold the show. He had also to protest against a remark made by Mr. Hoskyns. Whatever we do, don't let us have any Shorthorn prizes offered in the Hereford showyard. The Royal Agricultural Society of England very properly has its Shorthorns, Guernseys, Jerseys, and other breeds; but let us at Hereford give prizes only to Hereford cattle, and keep the Shorthorns out of the county.

Mr. JOHN BOSLEY hoped the day was far distant when they should have an alteration in the time of holding the Hereford cattle show. The October fair and the October show were like the Siamese twins, having always been together, as he hoped they always would be. Then as to Hereford cattle. It was a pure local breed, and there was no county in England which could boast of any one breed similar to Herefordshire. He hoped, therefore, that the show would be confined to Herefords. As long as he was a member of the society he should hold up his hand in favour of keeping the show exclusively to Herefords; and, although he was not selfish, he must say he thought it was the duty of every Herefordshire man to support its breed of cattle.

Mr. BIDDULPH said other counties had their fairs, but they did not hold their cattle shows in conjunction with these fairs. He thought it was a mistaken notion to suppose that the success of the October fair depended upon the show; if so, he was sorry that the show had not been a larger one. They had had a good show, but not a large one—not such a one as they could be proud of as a county show. He did not cast any reflection upon the county, but he thought that the show ought to be a much larger one.

Mr. DUCKHAM referred to the subject which had been mooted by Mr. Hoskyns, viz., the propriety of giving prizes to other

than Hereford cattle. That, he said, was a subject which he had often heard touched upon before, and which had been dealt with in the press; but his opinion was simply this—looking at the small amount of prizes which the society was able to offer for the breed of cattle indigenous to the county it would be injudicious to alter its prize-sheet.

Mr. W. H. APPERLY regretted that better samples of the county beverages—cider and perry—were not more generally met with. Unless they went into a private house, there was scarcely any cider to be got above the class that was called "family cider." In his opinion the show was not such an one as the county of Hereford—a county furnishing almost every kind of produce which all other counties yielded—ought to have, but the great difficulty which had to be contended against was want of funds. If the society had more funds, he believed that it could do much more; and his opinion was that if the resources of the counties, instead of being frittered away on small shows—some of which were dying, while there were others which were actually dead—were concentrated on one county show, the result would be very beneficial. When they saw that in four of the sheep classes there was in each only one exhibitor, he thought they must say that the society was not carried on in the way that it ought to be by Herefordshire men.

The Rev. BERKELEY STANHOPE considered that the expenditure of the society was very large in proportion to the total amount which the society had to meet; and, therefore, it could not perhaps be a matter of wonder that the prizes were so small. For instance, there had been about £100 expended in shedding.

The Rev. A. CLIVE approved of the establishment of chambers of agriculture, but he hoped they would not go beyond the object for which they were formed. If they did so, and touched upon the general politics of the country, they would have a bad effect. If they confined themselves to discussions of the subjects which legitimately belonged to them, they were calculated to have a good effect; but not otherwise. With regard to other breeds of stock, he was ready to acknowledge their excellence; but he regarded the Hereford show as a local one, and thought they would make but a poor return to the agriculturists of the county if they admitted other breeds of cattle than the Herefords. The show had been but a small one, and in some respects it reminded him of a story which he had heard of that gallant soldier, the late Sir David Baird. When at a parish school in Scotland—one of those schools which were very good of their sort, and to which the middle and poorer classes sent their children indiscriminately—he had been rebuked by his mother for being at the bottom of the class; and once when she asked, "Where have you been to-day?" he replied, "Second best." "And how many were there in the class?" "Just myself and one lassie," was the answer. And that, he thought, was a position in which some of the competitors had that day been placed.

Mr. ARMITAGE was very anxious that nothing should be done to injure the October fair; but he considered that while Herefordshire had so many beasts that it could not show them all in one day, the show was only a prelude to the fair, to the commercial prosperity of which he did not believe the show contributed one iota. He did not think that a beast had been sold out of the showyard that day. Certainly he could say for himself that when he had exhibited here, he had never sold a sheep or a pig in the show. His opinion was, therefore, that if the show were held at another time of the year, and in other towns of the county alternately, the commercial character of the fair would never be altered thereby. He was himself convinced that the show might be held in Ledbury, Ross, Leominster, and other towns, without the least injury being done to the October fair.

Mr. DUCKHAM said: There was an important point to which he wished to refer, viz., the holding of the Royal show in 1872. In that year Hereford would come within the district selected for the holding the show; but whether the county would take as much interest in endeavouring to get the show at Hereford as it did in 1863, he could not attempt to say. The point, however, to which he wished to direct prominent notice was the mode of selecting a town adopted by the Royal Society. He did not approve of the practice of putting the towns in a given district into competition, and thus entailing upon each competing town a heavy expense as well as great labour and anxiety. As an instance, he referred to what had been done

here in 1863, when a subscription of £5,000 or £6,000 was guaranteed, and when the expenses incurred involved a deduction of 5 per cent. upon all subscriptions of £5 and upwards. Yet, after all that expense, anxiety, and labour had been incurred,

the show was held at Worcester. He gave a preference to the practice of the Bath and West of England Society, viz., the selection of a town and offering it conditions if it chose to accept them.

THE GROWTH OF SUGAR-BEET.

At a meeting of the Cirencester Chamber of Agriculture, Mr. W. J. Edmonds, the president in the chair, Professor Church, of the Royal Agricultural College, said that the possibility of cultivating sugar-beet was of great interest alike to the farmer, the sugar-manufacturer, the spirit-distiller, and the chemical manufacturer of potash both in England and Ireland. The new industry had assumed gigantic proportions in many parts of the Continent; but the few attempts made to follow it in England had not as yet been considerably successful, though the renewed attempts of the last two or three years seemed likely to have better results. In 1869 there was in France alone a total weight of 300,000 tons of beet-sugar manufactured at £25 a ton; thus the industry in France represented a value of $7\frac{1}{2}$ millions sterling. Then, in the manufacture there remained a certain amount of molasses, a sort of rough treacle, which might be made into spirits, and was also very acceptable to the palate of certain animals; and the hundred thousand tons left from the quantity of sugar named would be worth half a million sterling. The Professor claimed that the cultivation of beet had a greater interest for Ireland than that of the potato once had, and that the one was likely to replace the other, and said that insurmountable difficulties as to the excise which no politician had yet been able to overcome made tobacco culture an impossible remedy for Ireland. He then said that it was only in 1747 that a Berlin apothecary first discovered that there was sugar in the beetroot exactly as in the sugar-cane, and that he extracted from four-and-a-half to six parts of sugar from a hundred parts of beetroot. But the methods of chemical manipulation were then very poor; no one knew how to separate the saline matters from the sugar in the root; and the attempts at organised manufacture failed. In 1790 the experiment was renewed in Silesia with a very good strain of sugar-beet, and a large yield was obtained, though the quality of the sugar was not first-rate. Then between 1795 and 1815 the European wars of Napoleon Bonaparte almost entirely prevented the re-establishment of this industry, until a very scientific minister of his established enormous manufactories for carrying it on; and now the sugar-beet was grown from Austria to Sweden; and the extent of district in which it *could* be grown was enormous. The speaker admitted the extent to which the growth would use up land now devoted to cereals, but said that the same objection had been raised to the cultivation of sugar in the West Indies, especially in the parts where the sugar was turned into spirit, and observed that in England there would be counterbalancing advantages, naming particularly as one the constant employment afforded to the rural population throughout the winter months. "It will also," he said, "favour the development of many ingenious contrivances, employ a large amount of capital, facilitate enterprise, advance science, and offer altogether a new field for industry, science, and capital." The increase abroad, he said, had been enormous. France had increased the number of its manufactories from 29 in 1827 to 336 in 1860, and probably to 600 at the present time; and there were also at least 500 distilleries for converting the sugar into spirit. On the whole Continent in 1869 there were 1,800 factories, producing more than 611,000 tons of sugar yearly; and in the same year the sugar was imported into the United Kingdom as an ordinary commercial article to the extent of 55,000 tons, costing £1,600,000. Only about seven distilleries had as yet been established in England—four of them near London, and one, Mr. Campbell's, at Bascot Park. Touching, then, upon the botany of the subject, the Professor said there were many varieties even of the sugar-beet, but that some of them differed but slightly the one from the other. One kind was the Silesian, with many varieties; another was the Imperial beet, a great favourite in France, and which would now probably be called the *Republican* beet; and there was a third kind grown to a large extent in Holland. It would be needful to make experiments during two or three

years in order to ascertain what variety best suited the soil being used; the soil must be in a very fine state of division and tilth, and must especially be free from stones. Professor Church here selected from the heap of roots and pulp and sugar in front of him a root which had had its tap diverted by a small stone and its sugar-producing properties thus destroyed to a great extent. This led him to contend for the need of a goodly shape to the root, and he showed in illustration one of the two or three hundred plants he has grown, and which he said he is saving for experiment. The root should have no neck, and should not be forked, seeing that the needful removal of the forks would cause bleeding and so forth, and thus waste much of the sugar. He also showed the evil of too large a proportion of leaf, holding up a root which, with a proportion of 100 of root to 200 of leaf, yielded only $8\frac{1}{2}$ per cent. of sugar, while from another root in which the proportion was reversed to some extent was drawn 12 per cent. of sugar. He spoke of the crinkling of the leaf, and gave figures showing the gradually decreasing proportion of leaf to root in a plant he had been noticing for some weeks. He mentioned that the good average weight sought in the roots had gradually advanced from 1 lb. or $1\frac{1}{2}$ lb. to 2 lbs. or $2\frac{1}{2}$ lbs., though some had been grown as heavy as 5 lbs.; and he said that when the root was good it should sink in water. The yield of roots per acre varied in different countries; in Austria the average was ten tons, in Prussia fourteen, and in France twelve. In the latter country the scientific minister named could grow only eight tons to the acre; later another man grew ten; later still, a doctor produced sixteen; and last year, an agriculturist in the Department of the Seine produced an average of thirty-eight tons alike on his own farm and on several others in the Commune. Another man also gave thirty-eight tons as his average, and a German authority of equal value returned a like average for the district in which his method of cultivation had been used. The Irish experiments yielded from sixteen to forty tons of roots per acre, and the sugar-beet contained sixteen per cent. of sugar; the sugar-cane didn't yield more than seventeen. In France the cost of growth was 22s. an acre more than that of wheat. Turning homeward, and answering the question, "Is the climate suited to the growth?" the Professor said, "We may conclude that nearly the whole of Ireland as well as of England is capable of growing beet containing a large proportion of sugar, but that the season of sowing and harvesting must be carefully watched. In accordance with the temperature and other conditions, you must know when to put in the seed, what sort of seed and manure to use, and so forth; and then in nearly all parts of England and Ireland the crop may be grown. A moist climate and a moderate amount of sun—conditions which we can pretty well realise here—will suit the beetroot far better than a very dry, hot air, and a brilliant, powerful sun. It must not be submitted to either very great cold or very serious drought; either condition injures the growth of the plant and interferes with the percentage of sugar. The plant has been grown very nearly to the Arctic circle—from the Atlantic to the Caspian Sea; and one variety sprouts at a temperature of 44° Fahr. The root does not rot if exposed to the freezing point for a short time; but if exposed lower than that point for any considerable period it becomes soft and rotten." It was contended that England was better suited to the culture than was Belgium, for the reason that the system of culture was better here than there; and it was said also that the higher kind of culture needful in this department would tend to raise agriculture generally. One point of culture insisted upon was that the roots should be so earthed up as that it should be impossible to tell whether they were red or white without removing them, for the reason that when raised above the soil there was great resistance to the formation of the taproot and the plant would not develop itself regularly, and the result was a root forked and contracted and poor in sugar. Cut off

the top layer of an exposed root, and you would probably find only 5 per cent. of sugar; the next layer would yield $6\frac{1}{2}$ per cent.; and so the increase would advance to 16 or 18 per cent. in a root the average yield of which was perhaps only 10 per cent. With regard to soil, neither pure chalk nor chalk mixed with a little marl or clay or sand answered; it should not be a poor or simply a sandy soil. A mixed soil, not too easily dried, answered best, and a soil not too stiff was better than a soil with too large a proportion of granular matter in it; and for sugar it was essential that the alkaline matter in the soil should not be too large, for the reason that this matter would interfere much with the quality of the sugar; for distillery purposes, however, the presence of the saline matter was not of so much importance. On many soils the application of burnt lime conferred great benefit, and calcareous matter was also found to be very useful in stiff soils otherwise well adapted to the growth of beet. Deep ploughing was considered a great requisite of success, and twice was better than once. For sugar, the manure needed to be put upon the land in the autumn; for spirits it was needless to regard this point. The land must be ready for sowing about the middle of April. Taking the fair average yield, there would be twenty tons of beet and fifteen of leaves. These twenty tons of beet would remove from an acre of land 180lbs. of potash, 50lbs of phosphoric acid, 32lbs. of magnesia, 18 lbs. of sulphuric acid, and 67 lbs. of nitrogen. These substances, save the nitrogen, were solid, earthy, mineral matters, which the plant could not get except from the soil. Thirty-five bushels of wheat, 162lbs. to the bushel, would only take from the acre of land on which they grew 12lbs. of potash and 18lbs. of phosphoric acid: thus the 35 bushels extracted only 30lbs. of solid, earthy, mineral matter. But while the twenty tons of roots took away 347lbs., with their leaves they extracted 840lbs. of mineral matters, and among these potash and phosphoric acid, two of the most valuable ingredients of the soil. Allusion was made to the consequent rise in the price of potash salts and of the mineral coming from Saxony which was really sulphate of potash; and growers were exhorted to restore potash to the land by using the large quantities of valuable refuse, bone-black, and so forth, resulting from the sugar manufacture. The lime-waste in the purification of the juice—the seum that resulted from the boiling down—the worn-out sacks used for pressing the pulp, and which, being made of wool, were rich in nitrogen when they had become thoroughly rotten—the waste from the furnaces and the scrapings of the roots—the still-liquor waste, containing three-fourths of the lost potash—the manure of the animals fed upon the pulp and the leaves, embodying the other fourth—all these embraced elements of great value to the soil. As to the kind of the manures needed, the Professor said that saline matters were had if the purpose was sugar-making, but observed, "Distilleries will probably largely take the place of sugar manufactories—for a great many people who refuse a lollipop will accept a dram." As giving an idea of how much saline matter could mix with land a long distance from the sea, he told that during the past six months 8lbs. had come from the Bristol Channel in the rain-water alone upon every acre of the Cotswolds, and that probably the whole year would yield from 70lbs. to 80lbs. per acre. Therefore, he said, there was no need for the artificial application of common salt. With reference to the seed, he said it was of great importance to have a good strain, and that the time for sowing ranged from the beginning of April to the beginning of May, that the seed should be soaked in water and then rolled in fine bone-black, and that wise distances between the rows and drills would be 18in. by 22in. He spoke of the difficulties resulting from not striking the due medium of distance, and showed examples of good effect among plants grown this year upon the College soil, which was not very deep and had not been manured—and then with only a few loads of farmyard manure—for four years. In this crop were found, in every 100lbs. of beets, these per centages of sugar—on Aug. 10th 8·70, ditto 24th 9·20, Sept. 7th 9·77, ditto 21st 10·48, Oct. 5th 12·00; and it was said that in another fortnight there would probably be 13lbs. or 14lbs. of sugar. He intended, he said, to carry the experiments to a conclusion, and to watch the effect of the frosts and what changes there were, and how far the sugar was developed and when it began to lessen. Professor Church referred to the beautiful instruments used in the manufacture upon the Continent—one, like a series of cheese-tasters placed side by side, for transplanting the beet-

root, and another for earthing up any parts of the root exposed to the light. He said that the proportion of sugar varied even in plants growing side by side from 3·6 per cent. to 13·5 per cent. in every 100 parts of root. He himself didn't have a very good strain of seed last year, and his proportions were—Sept. 8th 5·8, Oct. 9th 7·6, Nov. 3rd 8·6, and Nov. 24th 10. The formation of the sugar might be tested by the growth of the leaves, seeing that undue vigour in that respect meant loss in the other. But the easiest test was to take up a few roots and rasp them upon a bread-grater, and find the specific gravity of the juice by seeing if it would float a bulb sold for the purpose: if the bulb marked 7 floated the juice was good—if not, it was poor. The specific gravity of the juice was 1·07, but was sometimes higher. Another test was as to the blackening of the root when a knife was passed through it: a good root generally turned pink when exposed to the air. The effect of a root running to seed was very injurious, the flowers and buds benefiting at the expense of the sugar. The per-centages of sugar in certain roots in different stages taken from Bascoot and elsewhere were stated; and then directions were given as to the preservation of the roots and the different rotations of crops with oats and potatoes and clover and so on. It was explained that the pulp mixed with other substances formed an admirable food for dairy cows, and if excluded from the air would keep for any length of time; a bottleful was shown which was nine years old, and appeared to be as good as ever. A ton of pulp was equal to a ton-and-a-half of the roots from which it had been made. The liquor expressed might be used either for sugar or alcohol; but in any case the waste liquor might be used on the land again. The Professor concluded by further urging the return to the land of the different constituents drawn from it by the roots.

Mr. LITTLE, jun., gave figures he had obtained while in France. A ton of beetroot cost 20 frs. at the distillery door; containing $7\frac{1}{2}$ per cent., it would yield 165lbs of sugar, which, at 6d. per lb., would fetch £4 2s. 6d.; the cost of manufacture and materials was 9s. 4d., the duty £1 8s. 4d., and, with 5s. for wear and tear of machinery and interest of money, there would be a total of £2 2s. 8d., which, added to the 20 frs. of original cost, would make £3; on the other hand, 9s. for pulp and molasses, added to the market price of the sugar, would make £4 11s. 6d.; and thus, taking the cost of production from the amount of sale, there would be left a clear profit of 31s. 6d. upon every ton. In the distillery he saw produced from a ton of beetroot $14\frac{1}{2}$ gallons of spirits, and discerned several incidental advantages connected with the manufacture in either department.

Mr. E. RUCK said: In the last week in March, 1869, a letter was published in the *Times* pointing out the great advantage to be gained by growing beet in England, and in consequence I went to Lavenham, in Suffolk, in the first week in April to see works erected there by Mr. Duncan for the purpose of manufacturing sugar from beet; and I found there a very extensive set of buildings and machinery. Mr. Duncan had been giving to the farmers for their roots £1 per ton on delivery; the farmers had taken back the pulp at 13s. per ton; and the crop averaged from 16 to 24 tons per acre. In the third week in April I went to France to examine their mode of manufacture, and inquire as to the profits derived from it. I found that a ton of beet would yield 20 gallons of spirit, and that the pulp would pay for the manufacture and the interest of the money employed; Douay was the great sugar market for France, and there were figures showing the great rise in the price of land near a manufactory or distillery. Some land yielded thirty tons to the acre, and the beet had been grown for fifteen years in succession. Thus the farmer and the manufacturer had alike £50 an acre, and the pulp paid all expenses. The two chief sorts grown in France were the red beet and the white Slesian, the last-named yielding the greater per-centage of sugar; and great care was needless in preventing coarseness in the plants by having them due distances apart and so on. The cost of a sugar manufactory, with spirit distillery attached, would be about £20,000; and such a place would consume 10,000 tons of beet in a year. But under one system a distillery could be erected and provided with machinery at a cost of £1,600. In England, the Government duty on the spirit was 10s. per gallon, so that with an acre yielding 20 tons of beet, and these producing 400 gallons of spirit, the Government would receive £200 for each acre. It has been proved from analysis that no country has a soil or climate better adapted than ours to the growing of these roots

profitably; and I believe that the successive crops of beet are not injurious to the land. Wherever we went in France in the neighbourhood of a manufactory or a distillery we saw persons who had plenty of money in their pockets, though the farmers in such a neighbourhood are, as a rule, a very poor class; and I saw therefore that this was a new and profitable industry very much needed.

In answer to Mr. SMITH, of Bibury, it was stated that a ton of pulp resulted from four tons of root.

Mr. SMITH said: Professor Church has told us that our land is suited to this culture; but I don't think our climate is sufficient. It appears that the growth has been tried in several places in England, and has come to nothing; and I think if we wait a little while we shall see Mr. Campbell's experiment come to the same end.

Professor WRIGHTSON objected to a mere expression of opinion such as that, and put it that if there was a satisfactory yield per acre the essentials of climate and soil must be present in England.

The PRINCIPAL of the College asked Professor Church whether the returning of the pulp to the soil was not giving food for the future crop in a more available form than it could otherwise be obtained.

The PROFESSOR answered that it was universally admitted that it paid the grower to give 12s. a ton for that forming the fourth part of that for which they had obtained 16s. a ton, and he read a printed opinion to this effect—"I give it as my opinion that beetroot pulp at 12s. a ton is unquestionably a cheap and valuable food which may be used as a good substitute for roots." With regard to another point, the Profes-

or said, "I am certainly convinced that all the former failures in growing beet for sugar or spirit in this country have been owing to unfortunate mistakes in regard to the apparatus or the processes used, and not in any degree to the climate or the soil: I am certain that we should have as great a success in the growth of sugar in this country as in any part of Europe. The farmers may grow from twenty to thirty tons of sugar-beet per acre, and they can get 16s. a ton, and can obtain back the pulp at 12s. or 13s. a ton—and I take it that in using that pulp they not only provide food for animals, but also manure for the soil. The greater part of the potash needed is in the farmer's own hands, for the reason that potash salts are converted into manure, and can be purchased at a very cheap rate. The crude liquor will probably be returned to the farmer for nothing—and that contains four-fifths of the potash taken away. Until potash manufactories have been established in England, the waste liquor I have named will be of no use whatever; and therefore arrangements should be made to carry it back to the land. But the whole subject demands very careful thought, and I have avoided several points for want of time."

Mr. SNOWELL said that the profit suggested was only 3s. an acre.

Mr. RUCK said, If I understand arithmetic growing 30 tons of beet on an acre, and selling them off at £1 a ton, would yield £30 an acre to go into the farmer's pocket; and you might leave the pulp with the manufacturer if you choose—which, by the way, is what I should do.

It was then decided to adjourn the discussion for a month.

STOCK MANAGEMENT AT TILLYFOUR.

In no other county of Scotland is the breeding and fattening of cattle so successfully carried out as in Aberdeenshire. Without cattle the present rents could not be paid, as the return obtained for fat cattle is the main source of agricultural wealth. The county at large is therefore deeply interested in stock management. What applies to the county of Aberdeen applies within certain limits to nearly every county of the United Kingdom.

Our attention has been frequently called within the last two or three months to the difficulties which the owners of stock have experienced to keep their cattle in a progressing state. The difficulties of the present season are not, however, exceptional, as farmers have often had to contend with the perplexing problem, how to keep cattle which are being prepared for the fat market in a progressing state from the end of July to the beginning of October. Having this summer frequently seen the scarcity of food in pastures, and the almost entire absence of forage crops which could be used as a substitute for, and an auxiliary to, the scanty and withered herbage in the pasture fields, we resolved to visit Aberdeenshire, in the expectation that we would see instances of how the problem has been satisfactorily solved—viz., the autumn keeping of cattle which were being prepared for the fat market; and knowing the practical skill and energy displayed at Tillyfour in the management of cattle by Mr. William McCombie, M.P., we visited him last week.

Taking train from Edinburgh, and proceeding by Stirling and Perth to Aberdeen, we observed almost everywhere that the pastures were bare, affording little keep for cattle, beyond the withered stalks of the grasses which had formed seed. Between Perth and Aberdeen were seen well-stocked pastures, with cattle in a condition from lean to half fat, but in no instance did the herbage appear to be so abundant or so succulent as to advance condition. In many instances it appeared to us that the cattle must be getting older without advancing in condition; or, speaking more correctly, they are losing condition acquired in the beginning of the grass season. It was after we had reached the station of Whitehouse, in the Vale of Alford, that we observed that although the herbage was comparatively browned by the summer drought, there was sufficient for the animals to eat, but the grass was not of a description calculated to fatten them.

It was only after we inspected the stock on the three farms

occupied by Mr. McCombie, M.P., viz.: Tillyfour, Bridgend, and Dorsel, amounting to between 1,100 and 1,200 acres arable, that we found the problem satisfactorily solved, how feeding cattle could be kept with a profit during the latter part of the summer and the greater part of autumn without reducing their numbers until the turnip crop was matured. At Tillyfour we found forty-one polled cattle, aged from three to four years, comfortably housed, twenty being in straw-yards, and twenty-one tied up in byres. The cattle in the sheds are fed three times a day on a mixture of oats, peas, and tares. The forage is nearly ripe, and the cattle receive as much as they can eat without waste. In addition to the forage (oats, barley, and tares), they have a feed of good clover and hay, that is, four feeds a day of forage. The cattle tied up also receive forage three times a day along with turnips, but get no cake at the present time. Water is introduced into all the sheds. The cattle in the sheds receive from two to three pounds of the best linseed cake a day. The cattle confined in byres are allowed as many turnips with the shaws attached as they can eat; the variety is the Aberdeen Yellow: the bulbs are already well grown, and promise to be a very full crop by October. The seed was sown in the latter part of May. The cattle in the sheds are expected to be ready for the London market in a month or six weeks from the present date, while the largest sized cattle confined in the byres are not to be despatched for London until the Christmas market. They will be allowed cake about the end of October until the time they leave for London "to give them their last dip."

In a somewhat high and exposed field were grazing about thirty cattle, purchased in spring at from £20 to £24 per head. The pasture, second crop clover, was very good, but the cattle seemed as if they would have been the better of shelter. There is a shed in the field. On inquiry we learned that these animals will be removed in ten days to the feeding stalls. In another field, consisting of upwards of 100 acres of old pasture, a large number of cattle were grazing. The field had been at one time under the plough, but at a distant date. Observing some draining operations proceeding, we inferred that the field is to be broken up and put through a course of cropping. Judging from the herbage, we assumed that the land was superior, but the altitude is high, being between 700 and 800 feet above the level of the sea. The cattle in this field were neither so uniform nor so good as those we had

previously seen. A few of the cattle had been worked in the plough, but all were about three-parts fat, *i. e.*, testing them by the Tillyfour standard of fatness. We also observed two or three coloured cattle in this lot.

Adjoining this field were 36 acres of Swedish turnips. The field was without a blank, and so luxuriant were the leaves that the rows could not be distinguished. Surprised at the appearance of the field, we learned that it had been for a long period in grass. Broken up in 1867, it had produced two extraordinary crops of oats. The land received about eight cartloads of farmyard dung, and from 5 to 7 cwts. of dissolved bones per acre, previous to sowing the Swede seed. We have seldom seen in any season such a promising crop, and nowhere this autumn have we observed a field at all approaching this one on the farm of Tillyfour, the result mainly, we believe, of the number of years the field has been grazed.

In a field near the house, where a part of the breeding stock was kept, we found about thirty cows in milk, generally with calves at their feet. The cows are large, handsome, and generally in very high condition. Among them was the first-prize cow at the Great International Exhibition at Paris in 1856. She is now eighteen years old; and, although fat, she shows the effects of advancing years. We learn that this year she lost her calf, but, with this exception, she has bred regularly since she was two years old. This cow, when in bloom, was one of the most perfect specimens of Polled Angus that ever was exhibited, and has never been beaten in any competition, except by her daughter, "The Pride of Aberdeen," who was in the same field with a splendid heifer-calf at her foot. Several other first-prize cows of the Highland Society were also in the field. In one of the byres was a three-year-old bull of the Polled Angus. In open sheds were three yearling bulls. One of these is a remarkable animal for his size, and shows prominently the characteristics of the breed.

On the farm of Dorsel we learned from the farm manager that he had 100 cattle on the farm—part under cover, and part in the field. A number of these cattle, however, were grazing on the adjoining farm of Astown. Of the 46 cattle under cover 24 were in open sheds, and the remainder tied up in byres. The cattle which are in open courts are expected to be despatched to London within the next six weeks. We learned they were purchased in spring at £22 10s., and that the price expected in London is from £30 to £35. The cattle tied up are not so finished, but are of larger sizes, and are intended for the Christmas market. They are not all pure Polled Angus; some of the best have a strain of the Shorthorn. The feeding at Dorsel is the same as at Tillyfour. In a well-sheltered grass field below the steading we found nearly 30 very good cattle, which under ordinary circumstances would have been considered fit enough for the market; but we learned that they are to be tied up within the next ten days to be thoroughly finished for London. In a field adjoining were a number of heifer calves, and in a high-lying field were about 15 to 20 yearling heifers which Mr. McCombie had bred. The turnips—yellow and Swedish—on this farm are very superior to anything in the district. The extent under turnips is from 65 to 70 acres.

On the farm of Bridgend we were shown a number of cattle, some of which were superior to anything we had seen housed at Tillyfour or Dorsel. The first lot we examined, numbering about twenty, had been eight weeks in the house; they were prime fat, although they had only been receiving from 2lbs. to 3lbs. of cake daily for the last six or seven weeks; but they were also receiving forage, a mixture of tares, oats, and peas all of which were nearly ripe. These cattle were purchased in April at £22 15s. per head, and should now be worth about £33 in the market. In a byre we examined a number of animals; the aged cattle were of large sizes, and in good condition, but they will not be shown in London until the season is farther advanced. In the byre there are three black steers, aged two years, bred at Tillyfour, and should they continue to improve as they have done they may be entered for competition for the great prizes offered for fat stock when they are

matured. Standing next to these were four Shorthorned Angus cross-breeds; two of these are already in a condition suitable for competition, yet we learned that they have not received any cake or corn. In another part of the byre were two cows and one heifer, victims to the pernicious system of over-feeding for the showyard, and this over-feeding had been perpetrated to gain prizes offered for breeding animals. The two, aged four and five years, competed successfully at the Highland Society's Show at Aberdeen in 1868. The heifer was first at the show of the Great Northern Agricultural Society the same year, and the first in Edinburgh at the Highland Society's Show (1869) as a two-year-old. These animals have been rendered unproductive, are being trained for competition for prizes offered for fat animals. We were also shown an ox and a heifer, intended for exhibition at the forthcoming shows of fat stock at Birmingham and London. The heifer obtained the first prize at the Highland Society's Show in Aberdeen in 1868 (in the class for two-year-old heifers). Since then she has not been exhibited, and having proved unfruitful, she is now being prepared for the fat shows. After many years Mr. McCombie appears to have at last discovered, that the training of animals of his favourite breed—the Polled Angus—is ultimately productive of disappointment, and this year he has not been an exhibitor. In the adjoining field to this farm were about 40 or 50 cattle grazing, which in a few days are to be under cover to be prepared for the Islington market, where they will probably be shown in the month of December. On the farm of Bridgend the turnips are splendid, and there appears to be a good prospect on all the farms, that there will be no want of turnips, whatever there may be of fodder, to prepare the cattle for the fat market. Mr. McCombie expects that in the course of the next seven or eight months he will despatch to the London market between 300 to 400 fat cattle. The last two years the average price obtained has been from £35 to £36 a-head. It will be apparent to the reader, that Mr. McCombie has successfully solved the problem how cattle for the fat market can be successfully kept on until the turnip crop is ready to be used for fattening. It is apparent that great care, founded on experience, is required to carry out the system followed on the farms occupied by Mr. McCombie. As regards the general management, we may state that the cattle are turned out to graze on young grass from the 10th to the 15th of May, and a portion of that young grass is cleared of stock, by the 10th to the 15th of June, to be reserved for cutting. When the clover plants are abundant a very succulent cutting is available for feeding stock kept under cover. This second crop of clover, with the forage crop of tares, oats, and peas, and a few acres of yellow early-sown turnips, with a small allowance of cake, solves the problem how cattle are to be kept during summer and autumn in any year. During Mr. McCombie's long experience as a feeder of cattle, the present year has been, he stated, one of the most difficult to carry on his stock during the trying period from the month of July to the time when the turnips will be available. We may state further that Mr. McCombie believes that profitable feeding depends in a great measure upon the proper selection of the animals to be fattened, and that cattle should not be parted with until they are fully matured for the shambles; and to secure this, early housing, with proper feeding and proper care taken, is essential to secure that ripeness which obtains the highest prices in the Islington market. Mr. McCombie does not believe in an indiscriminate use of cake or meal. He has found by experience that cake supplied beyond six or eight weeks will seldom pay the feeder of cattle in Aberdeenshire. We may add further that the period of grazing cattle is being gradually shortened in Aberdeenshire, and that house-feeding is becoming more popular every day; that at the present time, on Mr. McCombie's farms, house-feeding extends to nearly nine months of the year. We believe that the time is not distant when house-feeding will be much more generally practised, and that grazing on arable farms will be greatly curtailed.—*The North British Agriculturist.*

SALE OF SIR G. R. PHILIPS' SHORTHORNS,
AT WESTON PARK, SHIPSTON-ON-STOUR, ON OCTOBER 18TH.

BY MR. H. STRAFFORD.

Successful auction sales rarely take place of draft stock; and unless some choice young animals of fashionable blood tempt the public, few breeders will undertake a journey in the uncertain weather of mid-October days. Mr. Finlay Dun, who has the management of the Weston Herd, and is the very popular agent of Sir George, hit upon a happy project to gather together a few of the best Shorthorn men, and we found the two-twenty train from Paddington conveying a dozen or more to Moreton-in-the-Marsh or elsewhere. The last sale at Weston, three years ago, made only a third-rate average, but this took place just before the sale of Her Majesty's and Mr. Sheldon's imported American stock. When Sir Chas. Knightley departed in peace at a ripe old age, "the small but select herd," as the old baronet loved to call it, remaining at Fawsley was put up, and Mr. Finlay Dun bought the two first, and by far the best two cows, Polytint and Lactea; these, with Fawsley Garland and Fawsley from the Ilavinger Park sale, and Sweetheart 2nd and Sorceress from Milcote formed the Knightley portion of the herd. Welcome by Col. Towneley's Squire, a purchase at Mr. Dudding's sale ten years since, had by this time eleven descendants; and with the Gwyneth, a short-pedigree tribe from Sarsden, and some of the old Weston Park cattle, the catalogue comprised forty-nine head. The entire Knightley portion was sure to attract; the Welcomes were a venture, and with the sure company and the venturesome few, the other lots were pretty certain to go off. A bright morning was the beginning of good things, and by eleven o'clock there was a capital assembly looking very earnestly at the various lots in the hill field just by Mr. Dun's ivy-covered house. No better place could have been chosen, as they showed to the utmost advantage. A pretty little hairy heifer, of Mr. J. A. James' breeding, was the first to attract the eye; then a thick roan Welcome, called Winsome, and a broad, round-barrelled Gwyneth, called Genevieve. But the old cows hung to the hill top, and were really admirable, preserving, despite old age, very good flesh and remarkably fine form, they were excellent models, especially Fawsley, Garland, and Lactea. The upright staggy horns of a thick short-legged heifer were also noticeable—this was Lactea Oxoniensis—and the rough red coat of a good-headed but flat-ribbed heifer turned out to be Polycherry. A few of the heifers and calves were shown in the houses as well as the bulls, and were chiefly surrounded by a local company. Mr. Clayden took the chair at the lunch, and delivered a speech on agriculture, to which Mr. J. K. Fowler replied, with some remarks on the compulsory slaughter of foreign cattle.

It has often been asserted that the Shorthorn breed is a short-lived race, but the first lot, Sweetheart 2nd, was a living contradiction, as she walked gaily round the ring although she was within a couple of months of nineteen years old. Her countenance showed age, as well as a little heaviness in moving, but she was in good condition, and worth best part of the 20 gs. (Mr. Walton) she went for to kill. Fawsley Garland, fourteen years old, also by Earl of Dublin, had a remarkably sweet head and elegant form, with magnificent shoulders, three months gone, was however of little avail, and she made only 25 gs. from Mr. Bliss. Lot 3, Polytint, fourteen years old, calved in March last and served again in June, looked like breeding another calf, but she was lame and rather to pieces. Several were in, Mr. Thornton being the last bidder, but she fell to Mr. A. Winnall for 42 gs. Lactea 12 years, a very fine white cow, in good condition and on very short legs was also like breeding, Mr. J. C. Adkins bid and got her at 45 gs. Sorceress of the Sweetheart line, and down-calving, looked bad, having also a hip down; many were bidding and Mr. Wright got her for Mr. Hardy, M.P., at 50 gs. Wallflower, the first of the Welcomes, could hardly be called a first-rate cow, nor were any of the family particularly good; Mr. Stone bought this cow at 42 gs., and he must have been a "pearl of great price" that sleety afternoon—for it came on squally after dinner—as he took fifteen

other lots besides, as well as a nice, white Darlington bull of Mr. Sheldon's at 26 gs. Some of the lots were it was rumoured for Canada but they hardly seemed of the quality to export, considering what fine stock has already gone out to that country. Captain Barclay of Surrey, took two of the best Welcomes, Welcome 3rd, 5 years old at 40 gs., and Winsome, 3 years, for 58 gs. A very sweet heifer calf from Welcome 3rd went to Mr. Brierley at 33 gs., and a long, fine calf from Willow made 30 gs. (J. H. Blundell), two guineas more than its three years old dam. To return to the Knightleys: Fawsley, a white, with a dark nose, by Third Duke of Thorndale from Fawsley Garland, went to Mr. Cutler for 62 gs. The spirit of the sale however rose with the entrance of Lactea Oxoniensis, for which 50 gs. was offered. "She ought to have been put up at a hundred" drew out a few more bids, and at last 100 was bid. Mr. Clayden then took up the running, but Messrs. Lency finished it at 200 gs. Genevieve, three years old, made 42 gs., and a succession of low prices followed. Lot 21 was not offered, and Furiosa (newly calved) made 32 gs., her roan heifer calf 6½ gs. Polycherry, by the Cherry bull Third Duke of Geneva, a dark red, deficiently-girthed bull, from Penrhyn Castle, out of Polythorn by Fourth Duke of Thorndale, gd. Polytint, went speedily along, and in the final heat Mr. Sheldon, of Brailes, beat Messrs Lency and others at 205 gs. Her dam had been secured privately by Mr. Sartoris early last year at 200 gs. Lactine, one of the prettiest lots in the sale, by Third Duke of Geneva from Lactea, was a long sweet roan, of not the best quality. Mr. Clayden and Mr. Sheldon were both in here, but the final "five" (175 gs.) was given by Mr. Thornton for Lord Feversham. The next lot, Polygeneva, 110 gs., joined Lactine and was not quite in condition for selling. The interest of the sale ceased here, nevertheless some of the calves capering in the ring sold well.

Merimae, a white Knightley bull bred at Milcote, was somewhat slack in the back, but good in many points; three-years-old the public do not fancy, so he went for 33 gs. The next also a white Grand Duke of Wateringbury, bred by Messrs. Lency, went for a guinea less to Mr. Canning, and the bulls generally sold low. Polytechnic, a deep roan calf, with a cloudy nose and scouring as well, a son of Polytint, was also bought by Mr. Hutt for 39 gs.

Six bulls bred by Mr. Sheldon at Brailes, were afterwards offered. They were not in the best of condition, nor could they be called a blooming lot, nevertheless they sold well. Mr. George Garne gave 67 gs. for Earl of Warwickshire 3rd, a nice roan, and Mr. C. Hobbs took Lord Hastings of the Fog-gathorpe tribe at 48 gs. The six averaged 42 gs.

COWS AND HEIFERS.

Sweetheart 2nd, white, calved December 27, 1851; by Earl of Dublin (10178), out of Sweetheart by Accordion (5708).—Harris, Brailes, 21l.
Fawsley Garland, roan, calved August 26, 1856; by Earl of Dublin (10178), out of Garland by Grey Friar (9172).—Bliss, Edgcombe, 26l. 5s.
Polytint, roan, calved October 30, 1856; by Earl of Dublin (10178), out of Cornbind by Janizary (8175).—A. B. Winnall, Ledbury, 44l. 2s.
Lactea, white, calved January 16, 1858; by Sarawak (15238), out of Cornbind by Janizary (8175).—J. C. Atkins, Milcote, 47l. 5s.
Sorceress, roan, calved January 22, 1862; by Mocassin (18406), out of Syren by Amiens (14095).—John Hardy, M.P., 52l. 10s.
Wallflower, roan, calved January 28, 1862; by Rampant (20623), out of Welcome by The Squire (12217).—J. J. Stone, for exportation, 44l. 2s.
Welcome 2nd, red, calved March 1, 1863; by Chanter (19423), out of Welcome by The Squire (12217).—J. J. Stone, 42l.
Fawsley, white, calved December 22, 1863; by Third Duke

of Thorndale (17749), out of Fawsley Garland by Earl of Dublin (10178).—T. G. Curther, Droitwich, 65*l.* 2*s.*
 Hyacinth, red, calved January 21, 1864; by Pan (18516), out of Honeysuckle by Washington (17213).—Walton, Burnington, 24*l.* 3*s.*
 Genoa, red, calved March 5, 1864; by Pan (18516), out of Gwyneth by Glo'ster's Grand Duke (12949).—J. H. Blundell, Luton, Bedfordshire, 31*l.* 10*s.*
 Rosalind, red, calved January 25, 1865; by Pan (18516), out of Rosamond by Washington (17213).—J. J. Stone, for exportation, 28*l.* 7*s.*
 Welcome 3rd, roan, calved November 28, 1865; by Stepping Stone (22978), out of Welcome 2nd by Chanter (19423).—Capt. Barclay, Leatherhead, 42*l.*
 Dinorah 2nd, red roan, calved March 31, 1866; by Barleycorn the Younger (21209), out of Dinorah by Rampant (20623).—J. J. Stone, 32*l.* 11*s.*
 Lactea Oxonensis, roan, calved January 27, 1867; by Imperial Oxford (18084), out of Lactea by Sarawak (15238).—F. Leney, Wateringbury, Kent, 210*l.*
 Winsome, roan, calved February 8, 1867; by Barleycorn the Younger (21209), out of Wallflower by Rampant (20623).—Capt. Barclay, Leatherhead, 60*l.* 18*s.*
 Genevieve, roan, calved February 11, 1867; by Barleycorn the Younger (21209), out of Guinevere by Rampant (20623).—J. J. Stone, 44*l.* 2*s.*
 Dew, roan, calved April 21, 1867; by Barleycorn the Younger (21209), out of Dawn by Pan (18516).—Walton, Burnington, 28*l.* 7*s.*
 Willow, roan, calved May 18, 1867; by Barleycorn the Younger (21209), out of Westeria by Stepping Stone (22978).—J. J. Stone, 29*l.* 8*s.*
 Fair One, red and white, calved June 9, 1867; by Barleycorn the Younger (21209), out of Fairy by Pan (18516).—Walton, 23*l.* 2*s.*
 Filagree, roan, calved October 1, 1867; by Barleycorn the Younger (21209), out of Fatima by Washington (17213).—J. J. Stone, 25*l.* 4*s.*
 Bonne, red, calved February 2, 1868; by 3rd Duke of Geneva (21592), out of Barmaid by Rampant (20623).—Met with an accident and passed.
 Furiosa, red, calved February 10, 1868; by 3rd Duke of Geneva (21592), out of Fruitful by Pan (18516).—J. E. Shirley, Easington, 33*l.* 12*s.*
 Blantyre, roan, calved May 6, 1868; by 3rd Duke of Geneva (21592), out of Blamange by Rampant (20623).—Capt. Barclay, 37*l.* 16*s.*
 Tasmania, roan, calved July 1, 1868; by 3rd Duke of Geneva (21592), out of Titania by Pan (18516).—J. J. Stone, 39*l.* 18*s.*
 Lurline, roan, calved July 7, 1868; by Lackey (24291), out of Ladylike by Noble (14997).—J. J. Stone, 27*l.* 6*s.*
 Polycherry, red, calved September 27, 1868; by 3rd Duke of Geneva (21592), out of Polythorn by 4th Duke of Thorndale (17750).—J. H. Sheldon, Brailes, 215*l.* 5*s.*
 Gulnare, red, calved February 15, 1869; by 3rd Duke of Geneva (21592), out of Guinevere by Rampant (20623).—J. J. Stone, 27*l.* 6*s.*
 Lactine, roan, calved March 14, 1869; by 3rd Duke of Geneva (21592), out of Lactea by Sarawak (15238).—Earl of Feversham, 183*l.* 15*s.*
 Polygeneva, red and a little white, calved March 29, 1869; by 3rd Duke of Geneva (21592), out of Polytint by Earl of Dublin (10178).—Earl of Feversham, 115*l.* 10*s.*
 Rosebud, roan, calved April 14, 1869; by Lackey (24291), out of Rosemary by Challenger (17521).—T. G. Curtler, 42*l.*
 Winning, red, calved December 12, 1869; by 3rd Duke of

Geneva (21592), out of Winsome by Barleycorn the Younger (21209).—J. J. Stone, 29*l.* 8*s.*
 Dora, red, calved December 28, 1869; by 3rd Duke of Geneva (21592), out of Deborah by Barleycorn the Younger (21209).—Died.
 Dinorah 3rd, red, calved January 11, 1870; by 3rd Duke of Geneva (21592), out of Dinorah 2nd by Barleycorn the Younger (21209).—J. J. Stone, 16*l.* 16*s.*
 Rosa, red, calved January 12, 1870; by 3rd Duke of Geneva (21592), out of Rosalind by Pan (18516).—J. J. Stone, 13*l.* 13*s.*
 Grassmore, red, calved February 16, 1870; by 3rd Duke of Geneva (21592), out of Guinevere by Rampant (20623).—J. J. Stone, 16*g.*
 Fair Maid, red and white, calved March 20, 1870; by Sir Rainald (25164), out of Fair One by Barleycorn the Younger (21209).—T. G. Curtler, 10*l.* 10*s.*
 Welcome 4th, rich roan, calved April 2, 1870; by 3rd Duke of Geneva (21592), out of Welcome 3rd by Stepping Stone (22978).—C. N. Brierley, Manchester, 34*l.* 13*s.*
 Wallfruit, red, calved April 20, 1870; by 3rd Duke of Geneva (21592), out of Wallflower by Rampant (20623).—J. J. Stone, 11*l.* 11*s.*
 Willow Twig, roan, calved May 18, 1870; by 3rd Duke of Geneva (21592), out of Willow by Barleycorn the Younger (21209).—Blundell, Luton, Bedfordshire, 31*l.* 10*s.*
 Geneose, red, calved May 28, 1870; by 3rd Duke of Geneva (21592), out of Genoa by Pan (18516).—J. J. Stone, 5*l.* 8*s.*
 Extra heifer calf; by 3rd Duke of Geneva (21592), out of Furiosa.—J. E. Shirley, Easington, 6*l.* 16*s.* 6*d.*

BULLS.

Merrimac (26897), white, calved October 28, 1867; by Patricia (24728), out of Maryland by Bull's Run (19368).—Hutt, 34*l.* 13*s.*
 Grand Duke of Wateringbury (26296), white, calved October 30, 1868; by 15th Grand Duke (21552), out of Countess of Wateringbury by Lord Tenterden (22222).—Canning, Stratford-on-Avon, 33*l.* 12*s.*
 Glory, red, calved June 7, 1869; by 3rd Duke of Geneva (21592), out of Genoa by Pan (18516).—Wheeler, Shipston, 30*l.* 9*s.*
 Geraint, roan, calved June 13, 1869; by 3rd Duke of Geneva (21592), out of Guinevere by Rampant (20623).—Moore, 24*l.* 3*s.*
 Whist, red, calved June 13, 1869; by 3rd Duke of Geneva (21592), out of Welcome 2nd by Chanter (19423).—W. Aikell, Moreton, 26*l.* 5*s.*
 Hottentot, red, calved June 9, 1869; by 3rd Duke of Geneva (21592), out of Hyacinth by Pan (18516).—Sir R. Bulkeley, Bangor, N.W., 42*l.*
 Polytechnic, roan, calved March 15, 1870; by 3rd Duke of Geneva (21592), out of Polytint by Earl of Dublin (10178).—Hutt, 40*l.* 19*s.*
 Woërh, red and little white, calved July 20, 1870; by 3rd Duke of Geneva (21592), out of Welcome 2nd by Chanter (19423).—J. Taylor, Long Compton, 13*l.* 13*s.*
 Harry, red and white, calved July 20, 1870; by 3rd Duke of Geneva (21592), out of Hyacinth by Pan (18516).—W. Dickens, Cherrington, 6*l.* 6*s.*

AVERAGES.

	£	s.	d.	averaging	£	s.	d.
13 Fawsley and Charmers...	1,099	18	0		83	16	9
11 Welcomes	365	8	0	"	33	4	4
6 Gwyneths	174	6	0	"	29	1	0
18 Shorter Pedigree	446	15	6	"	24	16	5
39 Females	1,824	7	6		46	15	6
9 Bulls	252	0	0		28	0	0

THE WHITEHAVEN FARMERS' CLUB.

At a meeting of this club Mr. John WILLIAMSON, of Low Walton, read the following paper on the Autumn Sowing of Wheat:

You understand that I have not come to read an elaborate paper before you, but simply to introduce it for discussion, which I shall do very briefly. *Preparation of the Land:* It is the general if not the invariable practice in this locality to

sow wheat after root crops, and in some cases after beans; and during the period of their growth we expect that the land will be well tilled and cleaned by means of the grubber, the harrow, and the hoe; so that after this crop is removed the land requires but little preparation for the wheat, the simple process of ploughing and harrowing sufficing. However, it sometimes happens, even with the greatest vigilance, that a

little couch grass will be found after the green crop is taken off; and in this case, as the plants are but few, it is an excellent plan to fork it out by hand labour. After the land is sown down, it is some time before such another opportunity comes of eradicating weeds; and during the growth of subsequent crops these few plants, that were perhaps looked upon as insignificant, are spreading their lateral suckers and ramifying over the whole field. In one of our eastern and midland counties the wheat crop in the rotation takes the place of our oat crop—that is, it is sown after clover. It is considered, I believe, that clover root forms suitable food for the wheat. I never adopted the practice, but I may say our worthy secretary has tried it and found it to answer. The land is rolled with a roller so constructed that it presses upon the furrow seams without rolling the whole surface, thus making a regular and firm seed-bed. With respect to ploughing, where the land has been previously deeply tilled, I like to have a good strong furrow for wheat. The plants are then able to strike their roots deep in the earth, and are less liable to be thrown out by spring frosts. All that I have to say of naked fallows for wheat is that on light land the practice is out of date, and mostly on heavy land. I don't know that it is unprofitable to pursue the practice on land of a stiff tenacious nature.

Manuring: Although a great admirer of Jethro Tull, yet I don't believe in trying to grow wheat without manure on strong clay or deep loamy soils—what we commonly denominate good wheat soils. Where a heavy covering of farm-yard dung has been applied to the preceding green crop, a crop of wheat may be grown without any further application of manure, but on sharp light soils, in my opinion, a better practice is either to grow the green crop with artificial manure alone, and apply a full dressing, say from ten to fifteen tons of farm-yard dung per acre, in the autumn; or, otherwise, to give for the green crop what we would call half a manuring of farm-yard dung, and then, again, in the autumn, give another dressing for the wheat. In the case of strong soils the properties of the manure can be retained, whereas porous soils require manuring at shorter intervals. A practice obtains, and one of which I quite approve, of leaving the turnip tops on the land on which they are grown, and ploughing them in for the benefit of the succeeding crop. There is no doubt they afford a rich supply of carbonaceous food for the wheat crop. It is better to cart them away if the tops are blighted, or infested with caterpillars and such like. I think a good crop of spring wheat may be grown with light manures. 5 cwt. of bones, 2 cwt. of Peruvian guano, and 1 of nitrate of soda, per acre, have yielded me a fair crop when both roots and tops were carted off.

Time of Sowing: Our rotation is such that we cannot sow very early. To the farmer holding heavy land, which no doubt is a disadvantage in a wet climate, I would say, "Embrace a fitting opportunity; sow when you can without puddling the surface. The light land farmer may sow almost when he likes. Early sowing is advantageous; less seed is required, and, other circumstances being the same, the crop will ripen sooner. I have found it to answer very well to sow any time between Martinmas and Christmas. In fact, I have seen it do better sometimes than when sown in October; and we never feel apprehensive of wet, although the horses may be sinking to the fetlocks. This would not answer on stiff land; the treading would poach the surface so that the water could not permeate.

Selection of Seed: There is perhaps no part of this subject that is of more importance to us than the selection of good seed. A change is also desirable sometimes from a different climate and soil. The seed should possess the true characteristic qualities of the variety, and be free from seeds. There can be no doubt that the sowing of dirty samples is oftentimes a fruitful source of disseminating weeds. As in the animal kingdom the ailments of the sire are frequently transmitted to the offspring, so in the vegetable. If we sow sound seed we may expect good produce; but if a poor thin sample be sown, perhaps already contaminated with disease, we cannot reasonably look for a good clean produce. With respect to the sorts of wheat, it would be difficult to say which is the best. There are a great variety of kinds in cultivation, both red and white, bearded and beardless. I will name a few: Chiddam; this is an old and much esteemed variety. Hunter's wheat; this is considered by some to be one of the best white wheats in cultivation. Then there are Hopetoun and Chevalier, &c.; and amongst red kinds there are Spalding's Prolific, and Piper's and Lammas Blood-red, and a host besides. Quantity and quality, and suitability to climate considered,

let each grow that kind which he finds to pay him the best.

Quantity of Seed: In all cases the nature and condition of the soil, the climate, and the season of the year materially affect the quantity of seed to be sown. I know there are those who cling pertinaciously to the usages of their ancestors, and who are unwilling to leave the beaten track in this matter of seeding. I feel extremely loath to disregard their advice or reject their practice, but I do think that in many cases there is more seed sown than is desirable. Although I don't believe in lavishly and indiscriminately sowing the seed, I would yet carefully abstain from following the advice of theorists who talk about sowing and reaping a crop from an imperial peck to the acre. It won't do to sow less broadcast than from eight to ten pecks imperial per acre on light land.

Method of Sowing: There are three modes of sowing, namely, by means of the drill, the dibbler, and broadcast sowing. With respect to sowing with the drill, I have not tried it; therefore, I cannot speak from experience; but my opinion is that eventually it will, in a great measure, supersede other methods, and for this reason, that it deposits the seed at a uniform depth, and as a corollary, we look for it to come up and also to ripen uniformly. There is also a saving of seed. Another advantage that this system has over broadcast sowing is this, that the land can be more effectually cleaned in the spring. Although I do not use the drill, I may say that the system is successfully adopted in our own neighbourhood. Mr. John Carter, of St. Bees, adopts this method, and fully approves of it. With respect to dibbling, there is no doubt it is a true and perfect method of depositing the seed. I have used a hand dibbler, which answers very well for a small plot of ground; but the method is so slow and tedious that it is quite impracticable to use it on a large scale. Whichever method is followed, the seed should not be put in more than about an inch in depth. I used to think, till experience taught me better, that by burying the seed pretty deep it would prevent the frost from throwing it out; but I have found that a better plan is to cultivate deep and sow shallow. To whatever country it—the wheat plant—may be indigenous, it is extremely hardy. We often see it left in the earth for weeks together, and during that time—perhaps just after the tender germ has burst—subjected alternately to keen frosts and drenching rains without apparently suffering any injury, and unlike many other plants it seems to grow and thrive equally well in hot climates as in cold. This peculiar adaptation leads us to conclude that it was intended by an All-wise Providence to form the staple food of man.

Black Ball and Wire-worm: The wheat plant, like all others, is subject to the attacks of many enemies. Perhaps the worst of all is, among vegetable parasites, what is commonly called black ball, and amongst insects the most destructive is wire-worm. With respect to the former of these, a very old and common practice obtains, as a preventive, of steeping the seed in chamber-ley, and afterwards of dusting it over with caustic lime. I have tried the plan for some years, and I must confess that I have no great faith in its efficacy. Some recommend a solution of sulphate of copper as being efficacious, but a friend told me the other day that he has tried this solution, and he is now having recourse to the old practice, as being the better of the two. With respect to wire-worm, the grub of the May beetle, I believe the best application that can be made to check its ravages is about 4 cwt. of salt to the acre. In conclusion I will just refer to some experiments that were made a few years back by Professor Bucknan, taken from the Royal Agricultural Society's Journal. They are instructive. He says: "I planted four plots of wheat in the following order. Firstly, much diseased wheat without pickle; secondly, much diseased, treated with sulphate of copper; thirdly, perfect picked seed without pickle; fourthly, perfect picked seed, with sulphate of copper. The results were as follows: Plot 1, much of the seed germinated, but the crop was much blighted both in straw and grain, in fact scarcely a perfect ear of the latter; plot 2, a very small quantity of the seed germinated, the few resulting ears were free from blight; plot 3, germinated, with a good and clean crop; plot 4, the same result as plot 3." From this it appears that the produce of the perfect picked seed without pickle was equal to the produce of the perfect picked seed which was pickled. At the same time the result shows the efficacy of sulphate of copper in destroying the germs of the disease, for in plot 2, which was diseased seed pickled, the few resulting ears were free from blight.

ABORTION IN COWS.

REPORT OF THE COMMISSIONER OF THE NEW YORK STATE AGRICULTURAL SOCIETY,
AS READ BEFORE THE SOCIETY ON THE 9TH FEB., 1870.

On June 2, 1869, the commissioner had the honour to address a letter to your secretary, containing a proposition to continue the investigation of the subject of abortions among cows for another year, as follows :

"New York, 69, West 45th St.,
June 2nd, 1869.

Mr. T. L. Harrison: Dear Sir—As you are aware, the investigation into the subject of abortions among cows was not considered closed at the time of handing in my report in February last, and although certain views were therein expressed as probably exerting a strongly unfavourable influence against the healthful performance of the process of gestation, it was still held that the information in the possession of the commissioner did not warrant an expression that these views had been established, however probable they might appear. In order that, if possible, a more decided expression may be allowed and those views confirmed, if correct, as also that measures calculated to arrest the disease may be advised; or, what is perhaps more important, in order that no false impressions may be promulgated in a semi-official form, even in the guarded manner there given, if further inquiry should throw doubt upon their probability, I would respectfully suggest, through you, to the Agricultural Society, that the investigation be continued during the coming season in certain dairy and cattle-raising districts in the Western States (where inquiries, in 1867, showed that the disease had not appeared), to a sufficient extent to determine whether the same practices in breeding and milking, during pregnancy, prevail there to the degree found to exist in Herkimer county, where the disease is so extensive. I make this suggestion with more freedom, as the whole amount of the appropriation made by the Legislature last year was not exhausted by the commission, but a sufficient sum was then left unexpended to allow the investigation here referred to to be made; and I beg leave to state, in addition, that I shall make no charge for my own services, but that all the available funds will be applied to gathering information, or used in the necessary expenses incident to the getting out of the report, so that as large a number of reports (of farms) shall be obtained as is possible.

Very respectfully yours, W. H. CARMALT.
In reply, the following letter was received, June 25, 1869:
Albany, June 24th, 1869.

W. H. Carmalt, M.D., Commissioner, &c.: Dear Sir—I have to inform you that at a meeting of the executive committee of the New York State Agricultural Society, held this day, upon reading your letter of the 2nd instant, it was ordered: That the commissioner in charge of the abortion investigation have authority to expend such a sum, not exceeding five hundred dollars, as he may see fit, in the supplementary investigations proposed by him in his communication dated the second of June, instant.

Yours respectfully, T. L. HARRISON, Secretary.

In order to carry out the especial object above given, and to make the comparisons instituted perfectly fair, two points were necessary. 1st. That the dairy products of the districts compared should be the same, and if prepared by the same methods, the comparison would be still more accurate. 2nd. That the treatment of the cows, in all points relating to their care or breeding, should be thoroughly inquired into, and whatever differences found be fully considered. The selection of a locality which would hold a fair comparison with the investigation last year was the subject of much care, and after as thorough an examination, from the means at the disposal of the commission, as possible, Geauga county, Ohio, was chosen as bearing the closest comparison, in the matter of dairy products, with Herkimer county, New York. For, in the investigation of 1867, under Dr. Dalton's direction, the farmers' reports from the States of Ohio, Michigan, Illinois, and Iowa, indicated that the so-called western reserve district in Ohio, was the most important dairy district in the west, and from an examination of the reports received from twenty-three counties in that State, together with the report of the Ohio State Board

of Agriculture for the same year, it was found that of about twenty millions of pounds of cheese made in that State, five millions, or twenty-five per cent. was made in Geauga county; and further, that more than one-third of all the cheese factories in the State were in that county, fifty-two being reported in the State, of which nineteen were in that county. This made the comparison tolerably close for the Census Report of the State of New York for 1865 (two years before), indicated that Herkimer county was the largest cheese producing county therein, manufacturing about nineteen per cent. of all made in New York; and we thus have, in each, the largest cheese producing county in their respective States, each also preparing its cheese, to a very great extent, by the means of cheese factories. With regard to the second point above mentioned, the reports and letters received in 1867, by the commission, from about one hundred farmers in the twenty-three previously mentioned counties, situated in all parts of the State of Ohio, showed no evident difference, to account for the absence of the disease there as compared with New York, so far as was included in the points inquired into that year. In order, therefore, to determine if the points in the investigation of 1868, contained the elements by which to account for the disease, a blank form of report containing the same series of questions, similar in all respects to those used in 1868 (except as to dates), was furnished to inspectors; who were instructed to pursue the investigation by personal inquiry and examination on the different farms, as had been practised for the two previous years. It is unnecessary to enter into the details of their instructions; they differ in no respect from those contained in the report of 1868, except in one particular, *i. e.*, that as in 1868, the instructions were to inspect every farm; in 1869, the following directions were substituted: "As the object of the inspection this year is to make an accurate comparison between the dairy farms, and the manner in which the dairy business is conducted, so far as relates to the care and treatment of the cows, you will please inspect those farms only on which butter and cheese (or milk) are made an article of sale, those farms on which cows are kept for the purpose of raising stock, only, not being considered to afford a proper comparison with the dairy farms of Herkimer county." In addition to the points embraced in the blank form, they were instructed to report, "How long has this farm been used for dairy purposes?" "Has the disease of abortion ever prevailed thereon?" "If so, when, how long did it continue, and when did it stop?" The commission was so fortunate as to secure the services, as assistant inspector, for a part of the time, of Dr. Benjamin R. Swan, who had been in the service of the society, and inspected the towns of Newport and Fairfield last year. The experience then obtained, of the manner in which the cows of Herkimer county were cared for, made his observations all the more valuable here, and he was furnished with a copy of the form of report used in 1867, in which the points more directly referable to their care are contained, and was instructed to note any differences therein, as between the two districts; thus establishing the accuracy, or otherwise, of the reports received, in 1867, from the farmers themselves, as also going over the whole ground with more care than any general directions would have been likely to have secured. Dr. Swan began his term of service on August 13th, and finished on September 7th. He was succeeded by Mr. George A. Vanwagenen, who entered on duty September 20th, and finished on October 16th.

Reports were received from these inspectors as follows, viz:

	Farms.	Cows carrying calf full term.	Abortions.
From the town of Chester	50	775	1
From the town of Chardon	44	649	—
From the town of Munson	63	1,042	—
From the town of Claridon	65	737	1
Total	222	3,203	2

Of the abortions, one occurred in the sixth month of pregnancy, the other in the ninth; one took place in December, the other in March; one was sired by a yearling bull, the other by a two-years-old; both occurred in cows which had borne a calf at full term the previous year; both cows had been on the respective farms upon which they then were for more than one year; no history of injury was obtained in either case. The proportion of abortions to the whole number of full term calves is too small, however, to consider these cases as otherwise than independent of influences at present affecting the cows generally, nor will they be again considered in this report, the district being assumed to be free from the disease. The investigation in Ohio being simply a continuation of that of last year, the points in the report then made will be taken up seriatim, and the two compared.

1ST. AS TO THE AGES OF THE BULLS USED.—

	In Herkimer county.		In Geauga county.	
	Per cent.	Per cent.	Per cent.	Per cent.
Cows served by yearling bulls ...	32	...	49	
Cows served by two-year-old bulls	65	...	45	
Cows served by "aged" bulls ...	3	...	6	

Showing, so far as the prevalence of abortions in Herkimer county is concerned, there can be no immediate influence against the use of yearling bulls, but arguing, so far as it goes, to an advantage in their favour. Your commissioner desires to be understood in this question; he does not in either report assert, or intend to imply, that the age of the bull is likely to influence in one way or the other the probability of a cow once impregnated carrying her calf to term; the foetus conceived by a young bull would be just as likely to live as that conceived by an older one; the ovum, once having been impregnated by healthy material, is under care of the dam, to whom we must thereafter look for any stoppage in the natural process of gestation. The influence of the age of the bull must be looked for farther on—farther than it is practicable for this commission to carry it—*i.e.*, to the point of determining whether the cow whose sire was an immature bull carries her calves to term or habitually aborts; but this is beyond any tangible information.

2ND. AS TO EXCESSIVE SERVICE OF THE BULLS.—

Average number of Cows.	In Herkimer county.	In Geauga county.
Served by yearling bulls	20	23
Served by two-year-olds.....	32	20
Served by "aged" bulls.....	41	29

There is, therefore, no indication in this table that any unusual drain is inflicted on the bulls in the affected districts to cause this disease, confirming the observations of both previous years.

3RD. AS TO THE PREGNANCY.—No marked difference has, in either of the former investigations, been shown as to liability to abortions between first and subsequent pregnancies; and it is worthy of remark here to find that about the same percentage of the herds in each district are heifers; in Herkimer county 9 per cent., in Geauga county 8 per cent.

4TH. WITH REGARD TO REMOVALS FROM FARM TO FARM.—By the investigation in Herkimer county it was found that there the per-centage of abortions among cows raised on the farm was less than among those brought on at any time during or since their first pregnancy, in the proportion of '046 to '07; and it was therefore inferred that, in a country where no abortions prevailed, the proportion of cows raised on the farm would be greater, but the investigation this year does not justify this inference. In Herkimer county 37 per cent. of the cows are raised on the farm reporting them; in Geauga county but 30 per cent. are thus raised, and the conclusion drawn from the inspection of Herkimer county is not sustained by the statistics obtained in Geauga county; though justice to the farmers of Geauga county, who have, through Dr. Swan, entered their protest against the practice of frequent changes in their herds, requires that his remarks on this subject should be given. On Aug. 19th, soon after commencing his inspection, he says: "The farmers are strongly prejudiced against cows from the West, preferring those that have been raised about here, and they seem to think that it is best to raise their own stock, and most of them raise two or three every year." On the 21st he states: "I find the herds more permanent here than in Newport; the same cows remain on a farm till too old to be profitable, while in Newport it was rare to have

the same herd in December that was on the place in January." After having finished the inspection, his final report states: "Almost all have tried the plan of 'deaconing' all the calves and buying cows to replenish the dairy, but it has been given up; all (P Com.) say it's much better to raise their own cows; that cows brought in from the west and south never do well the first year; and they find they can raise a calf about as cheaply as they can buy a cow, and then they know what they've got. I am told that, four or five years ago, it was almost universal to buy cows, and not raise calves; but it was decided that it was a ruinous process and it's been stopped, and I do not remember one who has not from one to a dozen calves growing up; the plan being, to raise the best calves, and sell the poorest cow, as the dairy increases in numbers. In this way the herd is growing better, and it is these refuse cows that drovers take to New York." It is further respectfully submitted that the apparent discrepancy between the inspectors' reports and the farmers' statements is accounted for in the letter last quoted, where it says, "four or five years ago it was almost universal to buy cows, and not raise calves." May not the inspectors' reports be, to a large per cent., made from the cows thus bought? A further investigation of this point, relates to the condition of pregnancy, or otherwise, at the time of removal. From the facts presented from Herkimer county, it appears that cows subjected to removal from one farm to another, during pregnancy, are more liable to abort than those removed non-pregnant, and who subsequently became so. No cows were reported non-pregnant at the time of their removal, in the four towns inspected in Geauga county, but the proportion of yearly removals is less, being but 12 per cent., while Herkimer county reports 17 per cent. of yearly removals. An isolated fact bearing on this point may be mentioned. Dr. Swan writes: "I met to-day, at Mr. Lester Taylor's in Claridon, a Mr. Wilder, a dairy farmer from California. He keeps about three hundred cows, two hundred milking, the others coming on; he makes butter entirely. * * * Last year he drove his cows down from one ranch on the mountain slope and through the valley to another ranch, and the next day a number aborted. Whether it was the journey, which was only seven or eight miles, and not unusual, or the change of feed, or strains, he could not tell."

5TH. PERIOD AT WHICH THE COWS FIRST BEGAN BREEDING.—The instructions to the inspectors were the same as last year and the importance of getting accurate replies was insisted upon; all doubtful cases were rejected, and they report as follows, viz.: Of eight hundred and seventy-nine cows in Geauga county, which were raised on the farms reporting them (or were brought on as unimpregnated heifers), five hundred and fifty-five, or 62 per cent., first calved at under three years of age, while in Herkimer county, last year, 83 per cent. were comprised in the same class. In other words, the farmers of Herkimer county, where abortions prevail at the rate of six per cent. of all births, subject 21 per cent. more of their heifers to the process of gestation, at an earlier period, than is the habit with the farmers of Geauga county, where abortions do not prevail. The injurious tendency, in subjecting the heifers to this process, before arriving nearly at maturity, was insisted upon last year, and subsequent investigation has but served to confirm the views then expressed; and, although the reports from Geauga county do not show that the farmers there are free from the charge of too early breeding, yet the practice is not carried the extreme degree that it is in Herkimer county. Among those who make a study of physiology, in either its scientific or its practical aspects, there is but one opinion as opposed to subjecting an animal to a process, making such great demands upon its nutritive powers, before arriving at nearly its full growth; and it is a well known rule, that the too early or the excessive exercise of any function impairs, either permanently or temporarily, its complete development. And the following conclusions, bearing directly upon this point, are drawn from the statistics of 16,953 cases in the female population of Scotland. 1st. That the comparative fertility of the female population increases gradually from the commencement of the child-bearing period of life until about the age of thirty years is reached, and then it still more gradually declines. 2nd. The initial fecundity of woman gradually waxes to a climax, and then gradually wanes. 3rd. The climax of initial fecundity is probably about the age of twenty-five years. In the case under investigation, it is requisite that all parts of the organization of a breeding heifer

should have their growth sufficiently advanced to enable them to bear the demand upon their nutrition and future development, which gestation entails; the influence of the latter being towards checking the growth of all the rest of the organization, to the hindrance, more or less remotely in the course of generations, of the development of the reproductive process, and it can therefore only be necessary to show that a heifer has not arrived at her proper breeding period, at from one year to fifteen months of age, in order to prove that the disease complained of is a direct consequence of this practice. Yet this is the time at which, as has been shown in 1867, and again in 1868, 83 per cent. of the heifers of Herkimer county are first covered by the bull, and the reproductive process initiated. The fact of the presence of that portion of the reproductive process, comprised in the phenomenon of heat, or rut, is not sufficient authority for a breeder to immediately subject a young heifer to the labour of carrying on the remainder. Habits of domestication tend powerfully to stimulate this function to an early development and more active exercise; but rules must not be assumed from exceptional cases, and although in the investigation of this subject, as well as in his personal experience as a farmer, your commissioner may have met with cases of extreme precocity, more extended observations do not justify that these should be considered otherwise than abnormal. One case is recorded where a heifer gave birth to a fully-developed calf when she (the dam) was but fifteen months and twelve days old. She must therefore have been impregnated at the age of six months, the sire being a calf, at the time of covering, of four months. Surely no one will assume from this case that it would be good or even allowable management to set all calves to breeding as soon as they will allow intercourse; yet this is the argument which the farmers, where abortions prevail so extensively, use, asserting that the artificial stimulation which habits of domestication invariably excite is the natural appetite. In a table relating to the process of reproduction in mammalia, including about fifty species, Prof. Duglison gives, under the head of "Age capable of engendering Young," that of a cow at two years. As the same table gives the human female to be capable of engendering young at fourteen years, it is evident that the compiler intended to make this the *minimum* age, at which the heifer could *naturally* conceive, for no one will claim that fourteen years is a proper child-bearing period in woman. Cuvier states, "The cow is gravid nine months, and can breed at eighteen" (months). Additional evidence would not be wanting on this point among strictly scientific authorities, but it is unnecessary. Theoretically, the practice is opposed to recognised physiological laws; but to show that these laws are not in opposition to practical experience, a few extracts, among a large number to the same effect, from the writings of those engaged in active agricultural pursuits, may be of interest, as showing the plan which they have found to be the most advantageous. Keary on the Management of Cattle in Cheshire, a celebrated cheese district, in the *Journal of the Royal Agricultural Society*, says: "The age at which the heifers are first bulled varies in different herds, some breeders putting them to the bull at eighteen months old, while others prefer allowing them to run until they *complete* their second year. Wright on Management of Breeding Cattle: "Heifers are usually put to bull at two years old—sometimes, but very rarely, before; and this arrangement is found most conducive to the fruitfulness of the animals." Bowick's Prize Essay on the Rearing of Calves: "If a cow brings her first calf when from two to three years old, which the majority probably do, though all will admit that it is too early, we should not care to milk her more than five or six months after calving." In how many instances is this latter precaution observed in these districts where abortions are so frequent? Let the report of last year answer, page 33. And it was then further reported to this commission, many times, that the habit among the farmers was to force the heifers to as long a lactation as possible, on the ground that if this process was prolonged to the extreme that her future periods of lactation would also increase—a proposition that no physiologist will admit, and which nearly every farmer who is capable, or rather who is in the habit, of putting the observations of two successive years together, will deny. Prize Essay on Management of Cattle, by Little, who is reporting the method adopted on one of the large estates in the north of England: "About fifty or sixty West Highland heifers, a year and a half old, are annually

bought at the Falkirk Tryst, or Fair, in Scotland. They are brought home, * * * where they are wintered. * * * In May they are turned out to pasture, * * * and the Shorthorn bull is put amongst them in the beginning of July.' This brings them to at least two years old before impregnation. Evershed on the Agriculture of Staffordshire, describing the manner of rearing young heifers: "The third winter, *being then in-calf*, they are fed," etc., etc. These extracts show the course pursued by English breeders. In France, Boussingault, whose position as a judicious rural economist is foremost, says: "The age at which it is advisable to put heifers to bull depends a good deal on the way in which they have been kept and brought up, and also on their growth. Young animals of a good kind that have been well fed from their birth, and received all the care which contributes so powerfully to their development, will be ready to receive the bull when they are between a year and a-half and two years old. * * * The rule, however, is not to allow the young female to be leapt until she is nearly at her full growth." It is, therefore, evident that from a year and a-half to two years is the minimum age at which it is practically economical, in its true sense, to allow a heifer to begin the process of gestation. The observations of the physiologist, and the experience of the practical breeder, who breeds for the best results to his herd, thus arrive as they always will, to the same conclusion.

6TH. THE AMOUNT OF MILK OBTAINED PER COW.— This question, as affecting the immediate result, is second in importance to none other presented; and, as will be remembered, considerable emphasis was laid upon it last year, and the results obtained by the investigation this year are sufficiently confirmatory to fully warrant the views then taken.

THE AVERAGE YIELD OF MILK PER COW	Pounds.
In Geauga county, of 2,979 cows in 1863, was	2,853
In Herkimer county, of 11,908 cows on non-affected farms, in 1867, was.....	4,386
In the State of New York, of 1,195,481 cows by the census of 1863, was	2,571

By this it is seen that in Herkimer county the average yield is 35 per cent. greater than in Geauga county, and that the average yield of the latter is 10 per cent. more than the average quantity obtained in the whole State of New York. As between the counties of Herkimer and Geauga, this comparison must be taken as nearly accurate. The inspection was made in the same manner in both counties, in part in each by the same person, and, as was stated last year, inspectors were directed to make reference to the books of cheese factories whenever desirable. It may also be here mentioned that both gentlemen expressed themselves under obligations to the proprietors of factories for the facilities afforded them in taking notes from their books. In the case of the State of New York, there are, of course, many districts in which the dairy is of a very subordinate consideration, and in which but little care is taken to collect the dairy-products. Very great differences exist between individual cows as well as between breeds, with regard to the amount of milk which they will yield; and if it could be shown that the cows of Herkimer county were a very superior race, better fed and better cared for than those in Geauga county, it might, with some propriety, be assumed that the above difference in the yield of milk is due to a natural difference between the local breeds. That, however, will not hold as between the cows of Herkimer county and those of the remainder of the State of New York (it is unnecessary to cite authorities on this point, it is a matter of too common observation); and, as between Geauga county and Herkimer county, Dr. Swan's evidence is clear, and directly opposed to the assumption of the superiority of the Herkimer county cows over those of Geauga county. This gentleman, as has already been stated, was a careful inspector of the towns of Newport and Fairfield in Herkimer county, in 1868, and was, therefore, able to make a fair comparison between the districts, and his instructions (before given) included observations on this point. He began inspecting August 18th, and writes: "I like the looks of the cows much better than in Newport." On the 21st: "I saw several herds yesterday, and was surprised at the excellence of the stock. The cows are large; the bulls at one and a-half to two years, are larger than two of the Newport bulls." On the 25th: "The more I see of the cows the more I am con-

vinced of their superiority, as a race, over the Newport cows." A man said, to-day, "They ought to have good cows in New York, for they come here to buy." Another spoke up and said, "Yet, but we only sell our poorest." On September 3rd, in reference to the manner in which the dairies are kept up, after describing which, he adds: "And it is these refuse cows that drovers take to New York, as you can't buy a man's best cow here." And an examination of the returns in the reports of 1867, from all the States above mentioned, shows no difference or peculiarity in the breeds of cows. They are reported, in a large majority, as "natives," the remainder being "grades," in no marked difference of proportion between "Shorthorns," "Alderneys," and "Ayrshires." As the evidence obtained by the commission, is opposed to the view that the cows of Herkimer county are of a superior quality, the question which would most naturally arise next, is whether the Herkimer county cows are better fed. Reports were made on this point from every farm inspected, in the three years during which this investigation has been progressing, and the result of a careful examination thereof is against this view. In the Report of last year it was shown (page 33) that the farmers of Herkimer county were in the habit of milking their cows to as late a period, during pregnancy, as possible, and that this was the means by which the increased amount was obtained. The deleterious influence of this practice upon the progress of gestation was also considered there, in some detail, to which it is only necessary to refer now. But do not farmers, in districts where abortions are unknown, pursue the same plan? It has been found impracticable to obtain absolute statistics on this point. The exact date at which conception took place is oftentimes unknown, and no record as to the time at which milking ceased is taken; but allowing farmers to state their views, those of Geauga county are found widely different from those in Herkimer county given last year. Dr. Swan states, August 19: "They (the farmers) all speak of the necessity of letting the cows rest, and think they get more out of a cow, in the long run, by letting her run dry three months, than to milk close." August 25th: "The cheese factories here are not owned by the farmers in joint stock, as in Newport, but by an individual who buys the milk out-and-out from the farmers, so much per gallon. A farmer told me that Mr. Randall, one of the factory men here, was urging farmers to sow corn for fodder, and feed it, and milk through the winter, saying they did it in New York State. The farmer said he thought a cow wanted rest, and it would be better for the farmers to dry off for three months at least; he thought they would be richer at the end of ten years than if they milked eleven months." In his final report, summing up the observations of his inspection, he says: "This country is the cheese district of the Western Reserve. The country is rolling, in some places very hilly, much more forest than in Herkimer county, New York. The soil has a large amount of clay. It is well watered, though not so well as Herkimer county; there being much more bottom land and more sluggish streams, the clay lessens in amount, and the country is better watered as we go further south. The almost universal custom is to let the cows run dry at least three months, all affirming that the cow needs rest, and that she comes out in the spring much better for it." It is, therefore, evident, from the facts actually presented, as well as from the observations of the inspectors, as thus shown in comparing these two extensive cheese-producing counties; in one where abortions

do not prevail, and in the other where they do, that the views expressed in the Report of last year are in their most essential points sustained; one element, however, *i.e.*, that of frequent removals, considered in Herkimer county to be a somewhat frequent exciting cause of the disease, has been found to exist to a greater degree, in Geauga county; but this is a minor point, and must be considered as one of the class of simply exciting causes, as distinguished from the predisposing or constitutional cause. The immediate exciting cause of an abortion may be one of many, all more or less accidental in their nature, but it became evident, as this investigation proceeded, that a disease, affecting so extensive a region of country, arising, as this did, only after the dairy business had come, in the course of years, to be the principal interest of the district, and which gradually extended itself as that interest increased, that some general predisposing or constitutional influence or influences were at the bottom, and that the various causes assigned on all sides were but indications of a *tendency* to the disease, which must not be confounded with the main element. In the first year of the investigation the attention of the Commission was mainly directed to influences affecting individual cows, but nothing positively pointing to a cause was arrived at, although immense progress was made in clearing away a mass of conflicting theories or opinions, which had previously presented themselves as important influences; against every one of which, however, more negative facts could be brought to bear than could be presented in its support. Still, even at this early stage of the investigation, indications of the practice of breeding prematurely were seen, but they could not then be classified in a manner to be made useful. In the following year the attempt was made to discover influences affecting farms, rather than cows; but still no positive reason could be found to account for the comparative immunity of one farm over another in the affected districts. The more definite form in which the inquiry, with regard to the age at which the heifers were bred from, was put, developed, however, the important fact of its very general early practice; and the increased average yield of milk, over that obtained from the cows throughout the State, who were of precisely the same breeds and cared for in the same way in other respects, indicate an additional injurious influence upon the reproductive process, which would directly react upon an animal already subjected to the labour of premature gestation found in both years to be exacted. It was then determined that whatever tendencies were at work to give rise to the disease were those of a predisposing nature, affecting the whole practice of dairying as carried on in the various districts inspected, and that in order to arrive at a satisfactory conclusion the investigation must be carried to a comparison of districts. The result of this last comparison is now before you, and the explanation of the manner in which those influences act, having been presented last year, it is unnecessary to enter upon them in more detail. And if, in the reports from time to time presented to your notice, but little reference has been made to many causes which have been advanced by authorities having every right to consideration, it has not been because they did not have value in the mind of your commissioner, but because, after investigation, they were found to hold the secondary position of being simply exciting or accidental in their action as affecting individual cows, and not predisposing causes, influencing whole districts.

W. H. CARMALT, M.D., Commissioner, &c.

LAVENHAM FARMERS' CLUB.

This club has held its first meeting for the autumn season, when the chair was taken by Mr. F. P. Hitchcock.

Mr. VINCE read the following paper on "Cultivation; or, how to draw the largest amount of value from the soil at the least expense."

You will excuse me when I tell you I have prefaced my paper on cultivation with notes borrowed from history, and some remarks from better informed persons than myself. I trust the heading of my paper will not mislead some of our young members to think my object is to teach them to farm without capital, if so they will be disappointed. Cultivation

is the art of tilling and managing land. The history of a nation celebrated for wealth and power is in every way intimately connected with cultivation; the soil may be said to be the true riches of a country. In ancient, as well as in modern times, nations have increased in wealth, power, and importance, just in proportion as they cultivated the soil. Commerce and manufactures are, no doubt, powerful resources for multiplying the wealth, and greatness of a nation; but then, I think I may say they never have, nor ever can flourish until the cultivation of its soil has reached a certain degree of perfection. In the earliest ages of the world it is not

probable that man made himself much acquainted with a culture of the soil; whilst the inhabitants of the earth were few and thinly scattered over its surface, hunting and fishing, with the addition of fruit, &c., afforded ample provisions; but as mankind increased, they turned their attention to cultivation, to supply their wants with a more certain subsistence. The first attempt at cultivation was, probably, by the use of the spade, which was evidently used prior to the plough. We read Adam himself was placed in the midst of a garden to keep and till it; his sons, after the expulsion from Paradise, cultivated the ground; and, in after-times, the rise and progress of cultivation appears to have improved, so as to supply the increasing wants of mankind. The Greeks were an ingenious and literary people, and were the first who taught the cultivation of the soil as a science. The Romans, as well, held agriculture in the highest estimation; their senators and generals often worked at the plough when their services were not required elsewhere. In the present age the cultivation of the soil takes a prominent place in the history of a country, as institutions to stimulate production, and honours to encourage talent and discovery have long been and are bestowed amongst the nations in Europe. In Persia the husbandmen are yearly admitted to the presence of royalty, and in China the emperor performs once every year the task of holding the plough; thus, by example, showing that no man ought to be ashamed of being a farmer. In several countries of Europe the cultivation of the soil is taught, as one of the most useful branches of education; and history tells us, when nations have become exhausted by wars, governments have given encouragement to this science, as the only means of recruiting the permanent resources of the country; and perhaps it would be well if our neighbours that have caused within the last few weeks so much bloodshed and misery should, after this, turn their attention to this humble employment. I think I may say an example of this may be found amongst the acts of our own Governments in days passed by. Sometimes in a state of comparative depression rather than one of prosperity may be looked to as favourable to permanent improvement. Necessity is said to be the mother of invention. The best cultivators have often been made from the poorest soils, whilst many farming such soils as require little more than mowing, ploughing, and sowing, manifest an indifference, and sometimes an aversion, to improvement. Now, gentlemen, if we take a glance at the ancient and modern practices of cultivation and implements of husbandry, some idea may be formed of the advancement of the science. I have said, no doubt cultivation was first commenced by spade husbandry; there are some even now who would persuade us it can be done to some profit. Chemical science has thrown much light upon the subject of soils and manures as well as the effect of atmospheric influences upon our soils, and the consequent necessity of deep and shallow ploughing, according to the circumstances. Our forefathers commenced their instruction by recommending alternate fallows. I well remember one or two poor heavy land farms, where the plan was adopted furthest from the homestead. The last half century has worked a revolution in grazing and farming. Our martial neighbours can boast of their Sniders, Chassepots, and needle-guns as engines of destruction: we can rejoice over our steam-draining, steam-ploughing, and steam-threshing engines, assisting us in developing the products of the soil. The art of cultivation differs materially from any other art practised by man. Man can prepare and sow, whilst the bringing up and the bringing to maturity remains in the hands of an ever wise and indulgent Providence. We have known some foolish enough to wish for a wet harvest or a bloody war. We had the first in 1860. The last, I think we have had to perfection in 1870. Have we really received any benefit from either? I fear not; but I do think the last few years the seasons have been somewhat favourable for our operations in this neighbourhood, although, I fear, not for very light land occupations. That knowledge is power, is certainly applicable to the business of the farm. Knowledge is a capital of the greatest value in the absence of more available advantages. There is no class who rely more on their own skill than the farmers; we must admit there are many of us who have not acquired a thorough knowledge of our business. In these days of modern or rather model farming, we must always be acquiring fresh knowledge; it cannot be said that the cultivation of our soils has yet been brought to that degree of perfection which it is capable of reaching.

In a business point of view the intention is to obtain the greatest possible amount of produce from the soil, and the farmers object is to raise it at the least cost to afford him the greatest profit. In this a tenant may be assisted materially by his landlord allowing useless pollard trees and fences to be removed, and suitable buildings and yards arranged for all grazing purposes. Half the rent of a farm may be lost for the want of proper accommodation. Good farm-yard manure, well-prepared, is the farmer's best friend. I am fully convinced, let what may be said to the contrary, that really good farming cannot be maintained without good grazing. Our forefathers' chief wealth consisted in cattle, and our dependence must be, in a great measure, upon cattle also. How can we enrich the soil better than with good substantial manure? Manufacturers and their agents will dispute it, but sound practical farmers will not. I am convinced the more cattle we can keep the better it will be for us, directly or indirectly. Of course it requires discretion and judgment in buying and selling at the proper time. The English nation is a large meat-consuming community; for some years past, in spite of all the imports of foreign cattle, meat has realised a fair remunerative price. I remember saying to a sheep-grazing farmer in Hadleigh some 15 years since, "You keep a large flock of sheep, and feed them at a heavy expense." His answer was, "We can't make meat too fast when it will fetch 8s. per stone." As something above that price has been realised of late years, I think the same remark will apply now. I am not one of those who would say, "Sheep pay best, or beasts pay best"; I would say, keep all you can fairly of each; keep them well, and should they at the year's end not show so favourably upon your balance-sheet as you could wish, you will have the consolation of hoping for some better results from the manure heaps they have manufactured. Now, gentlemen, I have not recommended a small expenditure per acre to produce the largest amount of value from the soil at the least expense. Farming under the most economical principle possible is expensive, and requires close application and good management. I think steam-power has in some measure cheapened our labour, and also relieved the labourer from some of his most laborious work. Steam ploughing, I am convinced will become more general, and with much better results than were by many anticipated. Reaping and mowing machines, with their improvements, are more in favour, and have this year more than realised the anticipations of those that employed them, and will ultimately become as necessary an implement as the corn drill. I was very pleased this harvest in seeing one of Burgess and Key's two-horse reapers, with one man only to drive, laying the whole field in even sheaves in workman-like manner ready for tying. Thanks to science for these modern appliances. When we can reconcile ourselves to the general use of them, I believe they will cheapen labour and assist to increase the value of our produce. You have already heard able papers from some of our most intelligent and practical members, upon the waste of force in farming operations, economy in the keep of farm horses, deep and fleet draining, &c. I shall not enter upon these matters. The chief object of my paper is to enforce the necessity of breeding stock, &c. Good grazing in connection with our modern cultivation, as far as my own experience goes, has been satisfactory, and I think there are many of our members who expend a large sum for stock and feeding stuff who will admit they have received a fair return for their outlay. We have heard £10 an acre as a fair outlay upon an occupation, and many no doubt think they manage very well with that sum. I would not go so far as our friend Mechi, and say £20 would be much better, but I would urge upon our young members the necessity of breeding stock and grazing as a means to increase their profits and improve the land; always bearing in mind the producing man is the man for his country, and the man who will ultimately receive the best return upon his capital.

The CHAIRMAN said Mr. Vince had referred to steam cultivation, and he would produce for their inspection some beet roots which he was told were the result of deep cultivation. Mr. Hitchcock then placed upon the table four roots, two of extraordinary dimensions and two much smaller, and also some of the subsoil, which, he said, was unmitigated clay. The beet came from Mr. Campbell's, Basket Park, near Faringdon, Berks, the large ones having been taken from the bottom of the field, where the soil was less tenacious, but all were grown upon pure clay. On the

same farm there were 1,300 acres of roots, as good as those he had produced. He (the Chairman) was at the farm on the previous day, and saw two engines of 30-horse power each, tearing up the land to the depth of two feet. It was sugar-beet farming, and not a system that they could well follow. The beet was not for making sugar with, but to make spirits, therefore the distillery was more taken into consideration than the farm. Beet was also used to feed a great number of cattle and sheep, there being at the present time 1,500 bullocks and 5,000 sheep on the farm. The proprietor sold 50 fat bullocks, and from 300 to 400 sheep by auction every week. He (the Chairman) thought they must all thoroughly agree that deep cultivation was the thing for roots.

Dr. WHITE said the specimen of subsoil produced had plenty of carbonic acid in it. It was partly dolomite, which was a mixture of limestone and magnesia.

The CHAIRMAN said he did not think there was any limestone in the soil, as they had in that neighbourhood to cart material for the roads a distance of 40 miles, whereas they might use limestone.

The SECRETARY read a telegram he had received from Mr.

Duncan, stating that he would give a prize of £10 to the grower of beet whose roots were the richest in sugar; the roots to be tried to weigh not less than 2lbs., and to be judged by density of juice in an average of 6 roots.

It was agreed that the Secretary should write to Mr. Duncan, thanking him for the offer, and ask him by what time the roots must be sent in.

Dr. WHITE said he had seen the steam plough at work on Mr. Hitchcock's land, but he thought there was a great loss of power in only having one grubber to two engines.

Mr. VINCE said if any man could invent a means of two grubbers being worked at once with any state of efficiency he could soon get a patent.

Mr. HUSTLER asked Mr. Vince's opinion upon the four course system of farming.

Mr. VINCE said as regards the shift of farming, the tenant farmer could not say much about that. Many of them were tied to the four-course shift, although, perhaps, they would like to alter the course a little. He thought they were often not forward enough in preparing their lands for mangolds; it ought to be done in the autumn. A person could not keep cattle unless he had roots for them.

NORTON FARMERS' CLUB AND EAST DERBYSHIRE AGRICULTURAL SOCIETY.

MEETING AT CHESTERFIELD.

At the twenty-eighth annual meeting of these united Societies the entries were fully as large as in former years, and considering the want of herbage during the drought, which has kept animals in poor condition, the stock was fully an average. Amongst the cattle, the dairy cows were a very good class; the heifers were rather poor; but the stirks much better. The first cow-calf, and the first bull-calf were good. The sheep were a superior show. There were also some good pigs. The older draught horses were a good class. Only three hunters faced the hurdles. There was good competition for the prizes for butter and cheese. The roots, for the season, were good, the only poor class being the cabbages.

PRIZE LIST.

JUDGES.

HORSES: J. Robinson, Grove Horse Repository, Mauchester; T. Rodgers, Wath-upon-Dearne.

CATTLE AND SHEEP: W. Tomlinson, Bradley Pastures, Ashborne; F. Smith, Ashborne Grange.

PIGS: J. Byrom, Penistone; H. Jenkinson, Unstone.

DAIRY PRODUCE: R. Wright, Chesterfield.

AGRICULTURAL PRODUCE: Messrs. Tomlinson and Smith.

CATTLE.

Bull.—First prize, £3, Mrs. Packman, Tupton Hall; second, £1 10s., J. Fletcher, Eckington.

Yearling bull.—Prize, £3, Mrs. Packman.

Cows.—First prize, £2, and second, £1, Mrs. Packman; third, 10s., J. Fox, Plesley.

A sweepstakes for pair of dairy cows in-milk or calf was awarded to Mr. Hopkinson, Woodthorpe, who showed against Mrs. Packman.

Heifer.—First prize, £2, J. Fox; second, £1, S. Lowe, Tupton; third, 10s., R. Crofts, Slitting Mill.

Stirk.—First prize, £2, J. Fox; second, £1, G. Cox, Elmton Park; third, 10s., M. Hopkinson.

Wye calf.—First prize, £1, W. Fowler, Whittington; second, 10s., W. J. Cawton, Park Hall.

Bull calf.—Prizes, £1, Mrs. Packman, and £1, S. Lowe.

SHEEP.

Long-woolled shearing ram.—Prize, £3, M. Scorer, Scarcliffe.

Long-woolled above a shearing.—First prize, £3, and second, £1 10s., R. W. Crawshaw, The Hagge.

Of any breed.—Prize, £2, G. Sampson, jun., Beauchieff.

Five breeding ewes.—First prize, £2, R. Croft; second, £1, M. Scorer.

Five theaves.—First prize, £2, M. Scorer; second, £1, R. W. Crawshaw.

Five theaves, Shropshires or Southdowns.—Prize, £3, J. Rooth, Stretton. Highly commended, G. Sampson.

Five ewe lambs.—First prize, £2, R. Crofts; second, £1, Mrs. Renshaw, Bank House, Staveley.

PIGS.

Boar of the large or middle breed.—First prize, J. B. Gregory, Ravensnest, Ashover; second, C. B. Speight.

Boar of the small breed.—Prize, C. B. Speight.

Sow of the large or middle breed, in milk or in pig.—First prize, B. Hardy, Ashover; second, J. B. Gregory.

Gelt of the large or middle breed, in milk or in pig.—First prize, C. B. Speight; second, E. Holland, Grassmoor.

Sow or gelt of the small breed.—Prize, C. B. Speight.

Store pig.—First prize, C. B. Speight; second, C. Wright, Stonegravel.

Cottagers' pig, the owner not to occupy more than half an acre of land.—First prize, W. Clayton, Chesterfield; second, Conway, Chesterfield; third, G. Wilcockson, Chesterfield; fourth, W. Clayton.

EXTRA STOCK, &c.

Best pig, not exceeding six months old, fed on Littlewood's cattle spice.—Prize, timepiece value £5, J. Wright, Clay Cross.

Best pig in showyard under 18 months, fed on Littlewood's cattle spice.—Prize, a silver cup, B. Hardy, Ashover.

Best pig under one year old, fed on food seasoned with Simpson's cattle spice.—First prize, J. B. Gregory; second, L. Mountney, Bakewell; third, C. B. Speight.

DAIRY PRODUCE.

BUTTER.

First prize, £1 1s., Mrs. T. O. Hazard, The Herdings, Norton; second, 10s., Mrs. Blanksby, Hardwick Inn; third, 5s., Mrs. Ewing, Tupton.

CHEESE.

Cream.—First prize, £1 1s., W. J. Cawton; second, 10s., Mrs. W. Whetton; third, 5s., Mrs. T. O. Hazard.

Ordinary cheese.—First prize, £2, B. Hardy, Ashover; second of £1, M. Hopkinson.

AGRICULTURAL PRODUCE.

Swedes.—Prize, G. Sampson.

Common turnips.—Prize, J. Rooth.

Mangolds.—Prize, R. W. Crawshaw.

Cabbage.—Prize, W. Blanksby.

HORSES.

Hunter not less than three years of age.—First prize, a silver cup and £5 5s., T. Berry, Sheffield; second of £2 10s., T. Kirk, Oak Mount, Sheffield.

Entire horse of the draught kind.—Prize, £5 5s., W. Whetton, Sutton.

Yearling nag.—First prize, £2, J. Bradbury, Unstone Hall; second, £1, J. Wilcockson, Brampton.

Two-year-old gelding or filly, of the nag or riding kind.—First prize, £2, Mr. Hoyalnd, Wingfield; second of £1, T. Heywood, Chesterfield.

Three-year-old gelding or filly of the riding or nag kind.—First prize, £2, J. J. Crofts, Staveley; second of £1, G. Wetton, Brimington.

Roadster from 14 to 15½ hands high.—First prize, £3 3s., R. W. Crawshaw, The Ilagge; second of £1 1s., S. Burkitt, Chesterfield.

Harness horse, not under 15 hands.—First prize, £3 3s., W. Gaitskell, Duckmanton; second of £1 1s., E. Goodwin, Chesterfield.

Brood mare of the nag kind, with a foal at her foot.—Prize, £2, J. Rooth.

Yearling gelding or filly of the cart kind.—First prize, £2, J. Wilcockson; second, £1 1s., J. Fletcher.

Two-year-old gelding or filly of the cart kind.—First prize, £2, Mr. Fletcher, Owl Cotes, Heath; second of £1 1s., R. W. Crawshaw.

Three-year-old carting colt or filly.—First and second prizes, £2 2 and £1 1s., T. Ward, Intake. Highly commended: T. Marples.

Brood cart mare, with foal at her foot.—First prize, £3 3s., W. Rogers, Linacre; second of £1 10s., J. Bradbury, Unstone Hall.

Draught gelding or mare above three years old.—First prize, £5, T. Ward; second of £2, W. Lister, Greenhill Hall; third of £1, R. W. Crawshaw.

Pony, mare or gelding, under 14 hands.—First prize, £2, J. Martin, V.S., Chesterfield; second of £1, W. Stamford, surgeon, Tibshelf. Highly commended: J. Ewing.

HUNTINGDONSHIRE AGRICULTURAL SOCIETY.

MEETING AT ST. NEOTS.

For many years past the meeting of this Society have been migratory, and having been held alternately at St. Ives, Ramsey, and Huntingdon, this year came round again to St. Neots. Of horses the supply was good, and some really fine animals were exhibited. The same may be said of the breeding stock, Mr. Pawlett, Beeston, Bedfordshire, being always a great exhibitor. The show of sheep was small, not being nearly so large as at Huntingdon last year. Several classes did not fill. Pigs were indifferently represented; there were only five classes, and the entries were by no means large. The poultry show was likewise small, and much below the average.

PRIZE LIST.

HORSES.

Best stallion for agricultural purposes.—First prize, £15, J. Flintham, Somersham; second, £7, Mr. Battock, Hemingford Abbots.

Cart mare and foal.—First prize, a cup value £10, J. Warth, jun., Sutton, Isle of Ely; second, £3, J. Fryer, Chatteris.

Two-year-old cart gelding.—First prize, £4, and second, £2, T. and S. Fyson, Warboys.

Two-year-old cart filly.—Prize, £4, Mr. Wilkinson, Godmanchester.

Cart foal.—Prize, £2 2s., R. H. Ekins, Wennington.

Mare or gelding, above four and under five years old.—Prize, a cup value £25, Mr. Cheney, Gidding Grove.

Mare or gelding, five years old.—Prize, £10, D. Cooper, Spaldwick.

Mare and foal.—Prize, a cup value £10, J. Patterson, jun., Walesby.

Mare or gelding, above four and under five years old, not exceeding 15 hands 1 inch.—Prize, a cup value £10, J. Warth, jun.

Mare or gelding, above five years old.—Prize, a cup value £5, J. Topham, Crown Farm, Great Staughton.

Pony, not exceeding 13 hands high.—Prize, £2 2s., J. Warth, jun.

EXTRA PRIZE.

Mare or gelding, entered in either of the above classes, which shall jump in the best form.—Prize, a cup value £5, J. T. Blott, Basmeade.

CATTLE.

Bull, not under two years old.—First prize, £8, and second, £4, Mr. Pawlett, Beeston, Sandy, Beds.

Bull, under two years old.—First prize, £6, Mr. Pawlett; second, £3, P. Brown, Houghton.

Cow, of any age, having produced a calf within nine months.—First prize, £5, J. How, Broughton; second, £3, P. Brown.

Cow, of any age, in calf, or having produced a calf within nine months.—First prize, £5, P. Brown; second, £3, B. H. Rowell, Oldhurst.

Heifer, under three years old.—First prize, £4, J. How; second, £2, C. Hall, St. Neots.

Heifer, under two years old.—First prize, £3, J. How; second, £1 10s., Mr. Pawlett.

Steer, under three years old.—Prize, £5, Mr. Sisman, Buckworth.

Steer, under two years old.—First prize, £3, J. How; second, £1 10s., Mr. Sisman.

Pair of steers.—Prize, £4, Mr. Squire, Cross Hall, St. Neots.

EXTRA PRIZE.

Bull, to be kept in the district for 12 months.—Prize, a cup value 20 gs., Mr. Pawlett.

SHEEP.

LONG WOOLS.

Pen of 5 theaves, under two years old.—First prize, £4, and second, £2, Mr. Cranfield, Buckden.

Pen of five ewes.—First prize, £4, and second, £2, Mr. Cranfield.

Pen of five wether lambs.—First prize, £4, and second, £2, Mr. Cranfield.

Pen of five ewe lambs.—First prize, £4, and second, £2, Mr. Cranfield.

Pen of five tup lambs.—First prize, £4, and second, £2, Mr. Cranfield.

SHORT WOOLS OR MIXED BREEDS

Pen of three wethers, under two years old.—First prize £4, and second, £2, T. Topham, Staploe.

Pen of five wether lambs.—First prize, £4, J. Hall, Eynesbury; second, £2, R. Daintree, Woolley.

Pen of five ewe lambs.—First prize £4, and second, £2, F. Street, Harrowden.

PIGS.

Boar, of the large breed.—First prize, £3, J. Pashler, Great Catworth; second, £1 10s., Mr. Crawley, Waresley.

Boar of the small breed.—First prize, £3, Mr. Deacon, Oundel; second, £1 10s. to Mr. Squire.

Breeding or suckling Sow, of the large breed.—First prize, £3, Mr. Pashler; second £1 10s., Mr. Squire.

Breeding or suckling sow, of the small breed.—First prize, £3, Mr. Deacon; second, £1 10s., Mr. Squire.

Pen of three yelts.—Prize, £3, Mr. Squire.

ROOTS.

20 Swede turnips.—First prize, £1, Mr. Wood, Clapton; second, 10s., G. Day, St. Neots.

20 Green, white, or red turnips.—Prize, 15s. Mr. Squire.

20 Globe mangels.—First prize, £1, P. Brown; second, 10s., Mr. Sisman.

20 Long mangels.—First prize, £1, Mr. Sisman; second, 10s., Mr. Looker, Wyton Manor.

20 Carrots.—Prize 15s., Mr. Ekins, Wennington.

20 Kohl Rabbis.—First prize, £1, Mr. Looker; second, 10s., Mr. Sisman.

10 Cabbages.—Prize, 15s., Mr. Sisman.

20 Roots exhibited in classes 3 or 4.—Special prize, a cup value 5 gs., Mr. Sisman.

FIELDS AND FOLDS AT HOME AND ABROAD.

Rotterdam is a quaint old city, well worthy of a few hours' quiet survey; and, as there is not much to be seen, those few hours will suffice to see all. The most characteristic view of the whole is to be had from a tower of the High Church, the peculiarities of the place being at once observable from this vantage post. Of these the chief is the intersection in all possible directions of the streets by the numerous canals, or rather the twining and twistings of the great canal, the ramifications of which are so diversified as to give altogether a peculiar feature to the city: the canals take in point of fact the place of the streets of other cities, the real streets forming comparatively narrow strips on each side of the canal. The number of bridges is consequently very great; and these, when viewed from a lower level, form a feature in many cases picturesque and in all peculiar. The houses are very high as a rule, and, being nearly all built on earth which can scarcely be characterised as solid, many of them are off the "plumb," and that in some cases to a degree which is somewhat alarming to an on-looker who has been accustomed to the straight, erect structures built on more solid soils. In many cases the houses are built quite close up to the sides of the canals, and look as if they would some day inevitably topple over and splash into the waters below. In many, we may perhaps say the majority, of the streets skirting the canals, trees are planted, which give the charm to a city which they alone can give.

The view from the tower of the High Church gives on a clear day a very striking view of what may be called the exceedingly narrow limits within which are comprised the towns and districts of this little kingdom; indeed a good eye may take in the whole of it, and that by no great exertion of its seeing capabilities. To the south is seen the lower reaches of the lordly river the Rhine, about which so much has been written and said, and in praise of which the songs of Germany abound—a river at this point which, as it "drags its slow length" along in quiet and placid, or sluggish, style, is the very antipodes of that noble phase which it presents for miles away, where it dashes over the rocks of Schaffhausen, or runs swiftly through the pass of the Lurle, or washes the base of the vine-clad cliffs, the summits of which are capped by the ruins of the castles which make the upper Rhine such a charming river. But the lower Rhine, in its quiet placidity, is not a river by any means to be despised; its banks no doubt lack the features to which we have above alluded, but they possess charms to those fond of quiet rural scenery, abounding in much that is, if not picturesque, at least that is very pleasing. We are aware that it is the fashion amongst the English tourists to pooh-pooch the lower Rhine as a river all sailing upon which for sight-seeing is to be avoided, but on such fair acquaintance with it as frequent voyages upon it may reasonably be supposed to give, we can claim for it this—that it is at all events worth sailing down at least once. And if this is done by one of our readers on the strength of this statement, he will not be disposed to find fault with us for giving him the advice. All the more pleasure will it be if, to the interest which a true agriculturist will take in seeing much that is suggestive of rural life of a character somewhat diverse from that met with in our own country, he adds that interest which an artistic taste will throw around scenery which will remind him many a time in the course of a day's sail of our charming pictures of the old masters. He will see

many a production in real life of that which in their works he has long studied and admired. But to return to our view as obtained from the tower of the High Church of Rotterdam. Following the river up its banks, if banks they can be called, he will see the red piled houses and the prominent steeples of Dortrechtel (Dort), a venerable city, which with its old historical associations, and its fine buildings, and the beautiful sails which may be made on the borders of the river surrounding it, is well worthy of a visit. Turning towards the north-west he will see the railway shooting out in a straight "bee line" right off to the queer old town of Delft—once famous for its crockery—and still famous for the church in which repose the remains of some of Holland's heroes and great men. Further on the eye takes in the steeples of the still more famous town of the Hague, a charming toy town, which should be visited, not less for the art-treasures which are there to be met with, than for the pleasant trips which can be made in its vicinity. Amongst which may here be noted the watering place in the North Sea—the Baden-Baden of Holland. Further on you see the town of Leyden, famous for its university, and not less famous for its size and its heroic defence. Still further on the eye rests upon the buildings of Haarlem, famous for its huge organ, and still further on those of the regal town of Amsterdam; still sweeping round, the eye next rests upon the quaint fine old town of Utrecht, and nearer Rotterdam that of Gouda, celebrated for its cheese. Within this circle lies nearly the whole of Holland, and its principal cities.

The character of the country agriculturally may be seen at a glance, it is essentially meadow and pasture land, but such pastures! It does the heart of a staunch old farmer good to see the grass amongst which the cows luxuriate; it is suggestive of an endless flow of the finest milk, of supplies of the richest cream. But more of this and of cognate subjects as we proceed.

The chief characteristics of the towns of Holland are cleanliness and quiet, not but what we have seen dirty slums even there, and smelt scents not by any means suggestive of the "Sabean odour from the spicy shore" of which the poet sings. But cleanliness is without doubt the rule, cleanliness which does not content itself with the condition of interior but concerns itself equally with the exterior of the houses. Nothing, indeed, so clearly contrasts with the state of too many of the streets of our towns and the slovenly state of too many of the houses, especially of the lower classes, than the way in which cleanliness "inside and out" is looked after, and undoubtedly secured throughout the whole of Holland. There is certainly no stint of water, and still more certainly there is no stint in its use for cleaning purposes. The very streets are washed, and pavement scrubbed like parlour floors—the brass work is of the most brilliant, the paints of the purest. Quietness of the towns, with the exception of Rotterdam and Amsterdam, which are in many respects quite noisy and bustling enough, is another characteristic which cannot fail to strike the observant traveller. It is a "silence which may be heard," and which imparts to all around a sleepiness which is very catching, but which to one coming from the never ending push and bustle of our towns has a charm of its own. To the man who has been over-wrought, as is too often the case with many of us, a positive benefit is to be derived from the strolls through the great streets of the majority of Dutch towns—the strain is taken off the

mind, and it is allowed to go to rest as one dreamily saunters along. There is quite enough of historical interest attached to nearly all the towns to impart an intellectual rest, to keep the mind alive without taxing it in any way. But the true "draught of nepenthe" is to be drunk, so to say, when one steals through the country on board one of the canal boats or truckshuits which "run," we were going to say, borrowing a phrase from our own go-a-head vocabulary, but which we should rather say "creep" from town to town. We are quite aware that this mode of travelling is all too slow for the hurrying tourist to whom a railway is scarce quick enough, and to whom the object seems to be to get through or over a country as fast as possible, regardless of what he sees, or rather what he does not see. But to one who wishes to see the country in its true—which to our readers means its agricultural—aspect, to see the people, the houses they live in, the work they do, and what may be called the inner life of the villages, we would strongly recommend the tourist to devote at least two or three days to travel by canal boat. If the weather be fine, we know of no more delightful mode of conveyance; there is just spurt enough of motion to give the notion that progress is being made, yet not enough to dispel the dreamy drowsiness which to the overworked man is so delightful, and which is so well calculated to aid nature's recuperative powers. And as the gardens of the better class of houses almost invariably stretch down towards the canal, charming views of the inner lives of wealthy Dutchmen are often obtained. Gardens laid out with the richest profusion of shrubs, trees, and of the flowers for which the Dutch are so famous, are frequently passed; nor are views of lower life wanting, as the canals pass through the centres of the villages, forming indeed the highway, so that views of quaint old houses are often obtained. And every now and then a stage in the journey is reached at which the boat stops, and as these stoppages deserve the name they get—unlike the hurried minute or two we get at our halting places—the tourist has time enough to "liquor up" in some queer old smiddy of a drinking shop, in which more frequently than otherwise an "interior" view is obtained of house and housewife, which puts the artistically inclined traveller in mind of some rare old bits of Teniers. And last, although not least, in importance to the prudent man who wishes to get the maximum of pleasure or information at the minimum of expense, a consideration worthy to be considered, and so considered by all who are not of the class who have "more money than wit"—the cost of conveyance by truckshuit is low, almost ridiculously low. Taking everything into consideration for those who wish really to see what is worthy to be seen, we pronounce the truckshuit as the best conveyance to take in Holland. We have travelled through the country in all ways, and we maintain that those who travel only by railway, do not, and cannot, see Holland as it is, and the Dutch people as they are. Another pleasant mode of travelling to see the country is what we would call a gig: this is generally provided with a hood, by no means a convenience to be despised when the sun is pouring down its fierce rays, and not less so when a heavy shower falls. This is not the only kind of conveyance to be had; some indeed are so odd in build as to defy the powers of description of any maker of such vehicles as we have. Carriages can be hired at almost any village, and as the roads are generally good, a fair extent of road can be got over in a short time, with this great advantage, that you can pull up at any point, to examine closely what may strike you as worthy of examination, an advantage which the truckshuit does not afford you. The horses, as a rule, sent out with these conveyances are not much "crack on;" but they manage to get famously along, nevertheless, opposite as they are to the obese con-

dition which is supposed to be the characteristic of the well-built, broad-beamed Dutchman—a characteristic, by the way, we may name in passing, not so frequently met with in Holland as we would be led to infer from what has been written and said of them. In point of fact, we have seen greater numbers of "Dutch builds" in the human frame in Paris and France, than we have seen in Amsterdam and Holland, notwithstanding the popular notion of the "lean and lanky Johnny Crapaud."

From what we have already said it will have been observed that the chief towns of Holland lie in what Bob Cratchet called "a circle"; so that, setting out from Rotterdam, the traveller takes them all in, and can return to Rotterdam in the opposite direction from that in which he set out. Thus he may go from Rotterdam by way of Delft, taking thereafter the Hague, Leyden, Haarlem, and Amsterdam; thence to Utrecht and Gouda; and from Gouda back, if so he wills, to Rotterdam; or he may go first to Gouda, and thence round by way of Utrecht to Amsterdam, reversing the order in which the other towns are named.

For reasons, which may or may not be obvious, and which, after all, are of little moment, we purpose taking our readers in the last of the two named ways—namely, by Gouda—as the first point to be reached.

Nearly the whole of the land on both sides of the canal or railway from Rotterdam to Gouda is devoted to meadows and pastures, comparatively little being under cultivation, and that little devoted chiefly to rye and oats amongst the cereal crops, and colza and potatoes amongst the forage and root crops. The colza is grown chiefly for the seed, but is also used in its green state for forage purposes. It is usually sown in the month of July—if the crop is to be raised from transplanted plants—in a well-manured seed-bed. As soon as the stubbles are cleared the land is ploughed deeply, and the furrows—where the best cultivation is sought after—carefully laid up after with the spade. The plants are then transplanted from the seed-bed, in rows at distances from each other varying from twelve to sixteen inches, and at distances in the rows of twelve inches. If the season is early, and the plants have taken well, they are hoed before winter, the land being left as rough as possible; they are then left, and early in the spring again hoed, and a good feed may be sometimes obtained from it if peculiarly luxuriant and the season is early; it will after this shoot up rapidly and grow for seeding. If entirely used for forage, this will be done so early as to allow of the land being prepared for rye, oats, and potatoes. When in flower, the bright yellow appearance of the fields or patches of land—more frequently these than those—upon which it grows presents a fine contrast to the surrounding green lands, and give to the aspect of the country a cheerful look. When the crop is ready for harvesting, it is cut with the sickle, a long stubble being purposely left, upon which the cut crop is laid, and being thus well kept off the ground, it soon dries. When it is thrashed, the chaff from the seeds makes an excellent substance for mashes, and so does the straw if cut up small into chaff, although it is generally used for littering. Colza is, however, a much more important crop in the neighbouring country of Belgium, where, to be sure, the style of farming is very different, as we may hereafter see, from that carried out in Holland. There can be no doubt of this, that on light lands we could, by cultivating rape more largely than we do, add greatly to our stock of feeding or forage plants. Where good colza is grown there must also be good farming, another point in its favour. The land all the way up to Gouda is largely composed of peaty or mossy soil, as evidenced in the peats which may be seen here and there laid on land to dry, and in the dark sided pools of water; although there are parts where sandy soil is

abundant. The land is indeed, as a rule, of anything but a solid character; so far from this, that if a building or any great weight is to be erected, the first operation is that of piling. We saw a station shed in course of erection at Gouda, and the piling driven to secure the foundation showed the treacherous character of the soil, and the consequently costly character of the structure. Clover, generally the scarlet clover, is also cultivated as forage, for summer feeding. The winter forage consists almost entirely of hay, raised from the meadows. The crops are, as may be expected from what we have already said, generally heavy, as may be seen from the large and well-filled sheds or covered stacks attached to small, or what appear to be small farm-houses. The meadows are liberally top-dressed with manure, this being composed not only of farm dung, but of town refuse often carried a considerable distance in small boats, these being tracked along the water-ways or small canals, which are seen everywhere over the land. These are so numerous in the neighbourhood of Gouda, that the solid land lies between the canals in narrow patches; and it is a curiously suggestive sight to see, when one looks across the country in the direction of the water-ways, the strips of alternating green contrasting with the water-ways, and stretching far away into the distance where they seem to merge one into another. Not that the distinction between water and grass-land is always very marked, for so covered are some of the water-ways with green weeds, and that so closely, that it is difficult to see at any, even a short distance, which strip is land and which is water—only this, that the cattle grazing indicates certainly the one which is solid. These water-ways are frequently used to transport the manure to the fields; the boats are small, but their want of capacity is made up by the height to which the manure is piled up—so piled up, that many a time we looked out for a capsize. The manure for top-dressing the meadows is laid liberally on the meadow land, and with scrupulous care spread over the surface, special attention apparently being given to the breaking up of the lumps and giving as uniform a dressing as possible to the surface of the land. This care is well repaid in the magnificent crops with which, as a rule, the farmers of Holland are blessed. The distribution of the manure is aided by wheelbarrows

and sometimes by small oddly-shaped but handy four-wheeled waggons, in which the manure is taken from the boats and laid in heaps over the meadow.

The cows are kept out in the pastures night and day in the summer time, the milking being done three times a day. The "milk-maids" are a sight to see in the generally picturesque costumes in which they appear, and the scrupulous cleanliness of person and of dress; the same remark may be made of the vessels used. These are often of brass, and are polished till they reflect the rays of the sun like burnished gold; if of wood, they are bound with metal, iron or brass, hoops, which are also kept scrupulously bright, and contrast finely with the white wood, which also tells of the "elbow grease" which has been expended in cleaning it. Like the peasantry of Belgium, that of Holland take an especial pride in their utensils: they are often very costly, and are cleaned and burnished till they shine again, and are always placed in the houses in such conspicuous positions as to indicate the value placed upon them; they are the household gods and most devoutly worshipped. The milk is carried home in vessels suspended from the two ends of a pole which rests upon the shoulders of the milk-maid—a most convenient way of carrying. The cows, where supplies can be had, have distillery wash or dreg, this being given in large tubs, which are placed at convenient parts of the field. We have seen these frequently, especially on the other side of Rotterdam, in the neighbourhood of Schiedam, that place so celebrated for its fine distilleries.

The fields are by no means large, the strips of land in districts as at Gouda, where the water-ways are so numerous, indeed prevent this; in other parts, as in the polder lands, the fields are larger, and the water-ways less numerous. There are no fences, the water-ways—or dykes, as they are called—forming the divisions. To admit of access from one strip to another, and as forming in fact the roadways to the farm, bridges or boarded footways are thrown across the water-ways; and to prevent the animal crossing, when it is desired they should be confined to one strip of pasture, part of the roadway is movable or hinged, so that it can be lifted up, or one or two of the centre boards are taken out, thus preventing the animals from crossing till the hinged part—draw-bridge fashion—is let down or the planks put in place.

PENRITH AGRICULTURAL SOCIETY.

Notwithstanding the glut of local shows at this season, that at Penrith not only "held its own," but exceeded in many respects the achievements of former years. In the cattle class there were sixty entries, including some of the best breed of which these eminently breeding counties can boast. The bulls were a grand specimen of what enterprise can effect backed by capital and judgment, and no diversity of opinion existed as to the discretion of the judges in awarding the premier prizes. The aged Shorthorn bulls were a magnificent class. Mr. J. C. Bowstead, of Hackthorpe Hall, adding another to his well-earned laurels with his matchless Flag of Britain, a pure white, with splendid head, excellent fore-quarters, good gait, and elephantine but symmetrical proportions. The Emperor, for the two-year-olds, and Mr. Bowstead's British Banner and Flag of Britain had but little to contend against, excepting Mr. Hogarth's Saint Julian, promising a good future. Shorthorn cows and heifers were a very attractive show, three first prizes going to Sir G. Musgrave's celebrated herd. Mr. W. Lowth's premium of a ten-guinea cup was carried off by the first-prize bull above alluded to. Mr. Rickerby's Emperor, now for the first time shown, and for which a second prize was given in class 3, bids fair to hold a leading position at future shows. In the horse class there were 204 entries, and it was altogether a useful good show.

The agricultural geldings were not very numerous, but good of their class. Light horses were very well represented, and the hunting fillies were also much and deservedly admired. The sheep show was throughout a capital class, the Leicesters more particularly. The blackfaced sheep were also good in their class—indeed, the judges expressed an opinion that they had never seen better shown. Where there was so much excellence, it is almost invidious to particularize, but special mention should be made of the draughts from the flocks of Mr. Irving, of Shap Abbey, whose royal sheep was again successful, and had other favours showered upon him. There was, as usual several reversions of the decisions at other shows, and in no case more pointedly than in the award for the best border Leicester tup, which was given to Mr. J. C. Bowstead, of Hackthorpe Hall, whereas the same tup was only third at Templesowerby. Col. Rigg's tup in the same class was second both here and at Templesowerby. The show of pigs was not large, but it included some very good specimens of porcine excellence. Some reputable dairies were represented, the redoubtable Mrs. Dobson, of Williams town, and Mrs. Davidson, of Greengill, dividing the two honours, which included two pieces of plate presented by Mr. R. Tinkler, churn manufacturer. Messrs. Stalker, R. Tinkler, and Armstrong, of Penrith, made a large display of agricultural

implements; and Mr. Proud, of Carlisle, showed a collection of light fashionably-constructed vehicles. There was a small show of roots, by Mr. Ingledew, of Sewborrews, Mr. Wright, of Carleton, and Mr. Clark, of Penrith, but no prizes were offered. As a whole, the show was considered a complete success, notwithstanding the hesitation on the part of some to run the risk of encountering the prevalent disease which has happily not displayed itself with excessive virulence in the immediate neighbourhood of Penrith.

The following were the judges.—Shorthorn cattle, and pigs: Joseph Culshaw, Towneley Park, Burnley; Thomas Atherton; Nichol Milne, Fade side, Melrose. Leicester,

border-Leicester, and long-wool sheep: R. W. Cresswell, Ashby-de-la-Zouch, Leicestershire; Lambert, Elrington Hall, Hexham; John Wood, Stanwick Park, Darlington. Hunting and harness horses: Brumley, West Launcester; John Blackstock, Hayton Castle, Maryport. Agricultural horses: John Forster, Longtown; James Steepman, Roslin, Edinburgh. Blackfaced sheep: William Noble, Beekford, Bampton; Geo. Browne, Troutbeck. Butter: John Irving, Longmarton; John Shields, Kirkbythside. Inspectors of green crops: George Smith, Coekernouth; R. Hetherington, Park Hall, Silloth; Peter Crosthwaite, Keswick.—*Carlisle Journal*.

WIGTON AGRICULTURAL SOCIETY.

JUDGES.

HORSES.—Saddle and harness horses: Mr. Hall, Sedgfield, Durham; Mr. Fearon, Keele House. Cart horses: Mr. T. Marshall, The Howes, Annan; Mr. M. Teeuan, White Sands, Dumfries.

CATTLE.—Shorthorns: Mr. J. Unthank, Netherseales, Penrith; Mr. A. Haddon, Honeyburn, Hawick. Galloways: Mr. Kerr, Red Hall; Mr. J. Grierson, Brandedelys, by Crocketford.

SHEEP AND PIGS.—Mr. J. Belleirving, Whitehall, Lockerbie; Mr. J. Mackenzie, Burnhill, Dumfries.

P R I Z E L I S T .

CATTLE.

SHORTHORNS.

Bulls, calved previous to January 1st, 1868.—First prize, J. Todd, Mireside; second, J. Barnes, Barugh.

Bulls, calved in 1868.—First prize, J. Scott, Little Crosthwaite; second, J. P. Foster, Killhow.

Bulls, calved in 1869.—First prize, J. C. Boustead, Hackthorpe Hall; second, J. Nelson, Rash.

Bull calf, calved in 1870.—First prize, J. Lamb, Burrell Green; second, J. and J. Norman, Bridge Mill.

Cows or heifers in calf or milk, calved previous to 1868.—First prize, J. Todd; second, R. B. Hetherington, Park Head.

Heifers, calved in 1868.—First prize, T. Dalzell, Hollius; second, T. Dalzell.

Heifers, calved in 1869.—First prize, J. Gunson, Sandwith, Whitehaven; second, J. P. Foster.

Pair of heifer calves, 1870.—Prize, J. Todd.

Pair of steers, calved in 1869.—First prize, J. Cowen, Curthwaite; second, J. Clark, Wampool.

Cup, value 30 guineas, for the best Shorthorn bull of any age.—Prize, J. Lamb.

Twenty guineas for the best Shorthorn cow or heifer of any age.—Prize, R. B. Hetherington.

Shorthorn bulls above 12 months, and not exceeding 36 months old.—First prize, J. C. Boustead, Hackthorpe Hall; second, J. Scott, Little Crosthwaite; third, T. Donald, Sanden House.

Bull of any age.—Prize, J. Fisher.

GALLOWAYS.

Bulls, calved previous to January 1st, 1868.—First prize, J. Fisher, The Knells; second, J. Graham, Parcelstown.

Bulls, calved in 1868.—First prize, R. Peat, Stone House, Seaville.

Bulls, calved in 1869.—First prize, J. Johnson, The Green; second, J. Thirlwall, Whittriggles.

Bull calf, calved in 1870.—Prize, J. Fisher.

Cows or heifers in calf or milk, calved previous to 1868.—First prize, J. Graham; second, J. Graham.

Heifers, calved in 1868.—First prize, J. Graham; second, W. Harrison, Westfield House.

Heifers, calved in 1869.—Prize, J. Graham.

HORSES.

SADDLE.

Brood mares.—First prize, I. W. T. Fyler, Hefleton, Dorsetshire; second, T. Baxter, Bromfield.

One-year-old filly.—First prize, T. Baxter; second, G. Moore, Whitehall.

Two year old filly.—First prize, W. F. Wilson, The Gale; second, J. Robinson, Bowness.

Three-year-old filly.—First prize, H. Railton, Snittlegarth; second, G. Ruddick, Arkleby.

One-year-old colt.—First prize, T. C. Thompson, Kirkhouse; second, T. J. Steel, Southerfield.

Two-year-old colt.—First prize, Sir Wilfrid Lawson, Bart., Brayton Hall; second, J. S. Steel, Laythes.

Three-year-old colt.—First prize, L. Potts, Wigton; second, G. T. Carr, Silloth.

Brood mare, calculated to breed hunters, with foal at foot.—First prize, I. W. T. Fyler; second, T. Baxter.

HARNESSES.

Brood mare.—First prize, J. Jennings, Thornby; second, T. Morton, Longburgh House.

One-year-old filly.—First prize, J. Nicholson, The Bank; second, J. Jennings.

Two-year-old filly.—First prize, S. Stamper, Waverton; second, J. Bowley, Warthole Guards.

Three-year-old filly.—First prize, C. and J. Armstrong, Carlisle; second, J. Thirlwall, Whittriggles.

One-year-old colt.—First prize, G. H. Head, Rickerby; second, R. F. Irving, Torpenhow.

Two-year-old colt.—First prize, T. Baxter; second, Sir W. Lawson.

Three-year-old colt.—First prize, R. H. Watson, Bolton Park; second, T. Baxter.

CART.

Brood mares.—First prize, T. Bell, Townfoot, Brampton; second, G. Little, Heads.

One-year-old filly.—First prize, G. Little; second, W. Atkinson, Greenrigg; commended, J. Williamson, Torpenhow.

Two-year-old filly.—First prize, W. Little, Whittriggles; second, Mrs. Little, Bownes Hall.

Three-year-old filly.—Prize, Mrs. R. Carruthers, Highfield Moor, near Carlisle.

One-year-old colt.—First prize, G. H. Head, Rickerby; second, R. Barnes, Laythes.

Two-year-old colt.—First prize, W. Atkinson; second, Mrs. Little.

Three-year-old colt.—First prize, S. Stamper, Waverton; second, J. W. Black, Longburgh.

Cart horse or mare from 3 to 8 years old, *bona fide* the property of a tenant farmer.—Prize, T. Bell, Townfoot Farm.

SWEEPSTAKES.

Pair horse or mare.—Prize, R. and J. Little, Guards.

Colt or filly foal for saddle.—Prize, H. Railton, Snittlegarth.

Colt or filly foal for harness.—Prize, A. Hayton, Border Cottage.

Cart colt foal.—Prize, J. Ostle, New Cowper.

Cart filly foal.—Prize, R. Barnes, Laythes.

Pony of any age, not exceeding 13 hands 2 inches high.—Prize, R. H. Watson, Bolton Park.

Hackney, of any age.—First prize, H. Railton; second, R. Feddon, Thursby.

Hunter.—First prize, R. H. Watson; second, G. Holliday, Mawbray Hayrigg.

SHEEP.

LEICESTERS.

Tups of any age, to be approved stock getters.—First prize, J. Todd, Mireside; second, J. Todd.

Shearling tups.—First prize, J. Hetherington, Moorrow; second, J. Todd.

Three ewes that have reared lambs this season.—First prize, J. Todd; second, W. Roper, Ling.

Three gimmers.—Prize, J. Todd.

BORDER-LEICESTERS.

Border tups of any age.—First prize, T. Bell, Whitehead Hill (Town Foot, Brampton); second, J. P. Forster, Killhow.

Shearling border tups.—First prize, T. Bell; second, J. P. Foster.

Three pure border ewes.—First prize, J. P. Foster; second, G. F. Statter, Broomhill.

Three border gimmers.—First prize, J. P. Foster; second, G. F. Statter.

LONG WOOLS.

Tups of any age.—First prize, W. Norman, Hall Bank; second, W. Norman.

Shearling tups.—First prize, W. Norman; second, W. Norman.

Three ewes that have reared lambs this season.—First prize, W. Norman; second, W. Norman.

Three gimmers.—First prize, W. Norman; second, W. Norman.

MOUNTAIN.

Mountain tup.—First prize, A. Parker, Nether Row, Caldbeck; second, A. Parker.

Shearling tup.—First prize, A. Parker; second, A. Parker.

Five mountain ewes, having reared lambs this season.—

First prize, A. Parker; second, A. Parker.

SWEEPSTAKES.

Pair of gimmer lambs of any breed.—Prize, W. Roper.

Tup lamb of any breed.—Prize, W. Norman.

Ewe of any breed.—Prize, W. Norman.

PIGS.

Boar of the large breed.—First prize, J. Robinson, Wigton; second, T. Hodgson, Longnewton.

Boar of the small breed.—Prize, T. Hodgson.

Sows in pig or mild of the large breed.—Prize, J. and J. Norman, Bridge Mill.

Sow in pig or milk of the small breed.—Prize, R. B. Hetherington, Park Head.

GREASLEY AND SELSTONE AGRICULTURAL SOCIETY.

MEETING AT MOOR GREEN.

The annual exhibition of the Greasley and Selstone Agricultural Society took place at Moor Green, and though it was not quite so well attended as on many previous occasions, yet it excited considerable interest amongst the inhabitants of that locality which the Society embraces within the scope of its operations. Some very good cattle were exhibited; but, owing to the drought for which this season has been so remarkable, and also to the foot-and-mouth disease having been so prevalent, they were neither so numerous nor of so fine a quality as in years gone by. The show of roots, particularly of mangold wurtzel, was very creditable. Everything considered, though the swedes have suffered very much from the insects with which they literally swarm. The judges were S. Field, of Farnsfield, W. Machen, of Linby, R. Watson, of Scarrington, and W. Ladtkin, of Lutterworth. The following is a list of the prizes awarded:—

HORSES.

Horse adapted for hunting purposes.—First prize, — Baldwin, Bulwell Hall; second, S. T. Jackson, Watnall.

Cart mare with foal at her foot.—First prize, H. Alcock, Linby; second, — Annable, Watnall.

Cart foal.—Prize, H. Alcock.

Two-year-old cart gelding or filly.—First prize, E. Godber, Hucknall; second, Barber, Walker, and Company.

AGRICULTURAL.

Pair of horses adapted for agricultural purposes, that have ploughed at the match, to be shown in harness.—First prize, E. Godber; second, J. Winson, Watnall; third, — Braithwaite.

HACKS.

Hack or roadster.—First prize, S. T. Jackson; second, J. Widdowson, Hucknall.

BEASTS.

Cow in milk, that has had a calf since April 1st, 1870.—First prize, H. Alcock; second, J. C. Musters, Annesley.

In-calf cow, stating the time of calving.—First prize, H. Alcock; second, H. Alcock.

Heifer under three years of age, calved or in calf.—First prize, Colonel Holden, Nuttall; second, T. Edge, Strelley.

Beast under two years old.—First prize, J. C. Musters; second, T. Edge.

Beast under one year old.—First prize, T. Edge; second, J. C. Musters.

Bull two years old and upwards.—First prize, J. C. Musters; second, H. Alcock.

Bull under two years old.—First prize, J. Widdowson; second, E. Godber.

SHEEP.

Three long-wooled ewes, having reared a lamb, and having again been or intended to be put to the ram.—First prize, H. Alcock; second, H. Alcock.

Three long-wooled theaves, having reared a lamb, and having again been or intended to be put to the ram.—First prize, — Annable; second, — Annable.

Five long-wooled ewes or wether lambs.—First prize, H. Alcock; second, H. Alcock.

Long-wooled ram of any age above a shearling.—Prize, H. Alcock.

Long-wooled ram lamb.—First prize, — Evans, Moor Green; second, — Evans.

Short-wooled ram of any age.—First prize, — Mellows, Papplewick; second, — Mellows.

Three short-wooled ewes, having reared a lamb, and having again been or intended to be put to the ram.—First prize, — Mellows; second, — Mellows.

Three short-wooled theaves.—First prize, — Mellows; second, — Mellows.

Five short-wooled ewes or wether lambs.—First prize, — Mellows; second, Rev. J. L. Prior.

PIGS.

Boar.—First prize, — Mellows; second, — Musters.

Breeding sow, pigged or in pig.—First prize, — Evans; second, J. C. Musters.

Gilt, pigged or in pig.—First prize, J. Widdowson; second, J. Widdowson.

ROOTS.

Crop of Swedish turnips, four acres and upwards, contiguous.—First prize, — Annable; second, T. Day, Nuttall.

Crop of Swedish turnips, one acre and under four.—First prize, H. Alcock; second, J. Widdowson.

Crop of mangold wurtzel, three acres and upwards.—First prize, Colonel Holden; second, T. Day.

Crop of mangold wurtzel, one acre and under three.—First prize, J. Widdowson; second, H. Alcock.

THE DERBYSHIRE AGRICULTURAL SOCIETY.

MEETING AT DERBY.

The show was, on the whole, one of the best the Society has ever had. The classes were well filled, and some of the animals shown of high character. The dairy cows, shown in fours, in pairs, and in single animals, were very good, as were the Shorthorn bulls, the best of which would take a position at a Royal Show. The sheep were inferior, and Derbyshire farmers would do well to look to their short-wools. The pigs were not numerous, but with some good specimens amongst them; and the horses, as a whole, as encouraging a show as the Society has yet had. Fifteen makers of cheese entered into competition, and some five or six of the lots were excellent in quality. The whole of the competing cheese was of the flat or thin variety. The show of wheat, both white and red, was very superior; the barley very good, but the oats not of that first order of excellence, nor were the entries at all numerous. Notwithstanding the exceptional dryness of the season the exhibition of roots was remarkably good. The entry of implements was not considerable. Several makers who had intimated their intention to be present did not put in an appearance, and with very few exceptions the specimens did not display features of novelty. Mr. Murray, of Elvaston, exhibited his models of a cheese factory working plant, for which a silver medal was awarded at the Walsall meeting of the Staffordshire Society last week, and again at this meeting. J. and G. Haywood, of Derby, sent a collection of implements by leading manufacturers; W. and J. Ratcliff, of Derby, exhibited a large and varied collection of implements. Thompson and Upton, of Derby, showed, amongst other things, a new horse-gear works, in which all the wheels are enclosed in a cast-iron case, which has the advantage of keeping the works free from dirt; Mellard's Trent Foundry Co. had a stand, the most noticeable article on which was the new patent revolving mould board plough—an American invention, which the patentees and licensees predict will effect a revolution in ploughing; and Bell Brothers, of Dean-street, Oxford-street, London, exhibited their washing machines.

The judges of farms report that—"After carefully going over the several farms entered for competition, we award the first prize to Mr. Robert Sybray, of Alderwasley. His farm comprises 110 acres arable, and 113 acres of pasture, and does great credit to Mr. Sybray. The second prize we award to Mr. Matthew Walker, of Stockley Park, a farm of 110 acres arable, and 150 pasture; great credit, and if supplemented by a better class of pasture land, would make it a first-rate occupation."

PRIZE LIST.

JUDGES.

CATTLE: Mr. Murray, Elvaston; Mr. Dicken, Mansfield.
AGRICULTURAL HORSES: Mr. G. Woolhouse, Wellington; Mr. Spencer, Loughboro'.
HUNTERS AND HACKS: Mr. Corbet, Farmers' Club; Mr. Colton, Newark; Mr. Bland, Newark.
SHEEP, LONG-WOOL: Mr. T. Tomlinson, Atlow; Mr. J. Lynn, Stroxtou.
SHORT-WOOL AND PIGS: Mr. Hall, Wilne; Mr. Coxon, Freeford.
GRAIN AND ROOTS: Mr. G. Wheeldon; Mr. Sybray.
CHEESE: Mr. S. W. Cox; Mr. Etches.
BUTTER: Mr. Barber.
WOOL: Mr. T. Tomlinson; Mr. J. Lynn.
IMPLEMENTS: Mr. Bosworth; Mr. Bullock; Mr. Abel.
VETERINARY SURGEON: Mr. Cowlishaw, Derby.

CATTLE.

Four cows for dairy-purposes, belonging to members keeping more than 20 cows.—First prize, £10, and silver cup value 10 guineas, M. T. Hopkinson, Woodthorpe; second, £5, G. J. Mitchell, Newton Mount; third, £2, M. T. Hopkinson, Woodthorpe. Highly commended: J. Hodgkinson, Allestree. Commended: T. C. Smith, Birdsgrove.

Two cows for dairy-purposes, belonging to members not keeping more than 20 cows.—First prize, £5, E. Vale, Rose Hill, Litchurch; second, £3, W. Worthington, Newton Park; third, £3, E. Vale. Highly commended: Dr. Hitchman.

Shorthorn cow, having calf.—First prize, £5, J. Fox, Pleasely; second, £3, E. Vale; third, £2, R. Ratcliffe, Walton Hall. Highly commended: J. Hodgkinson. Commended: W. S. Woodroffe, Normanton-on-Soar.

Pair of heifers under three years old.—First prize, £5, R. Ratcliffe, Walton Hall; second, £3, W. T. Cox, Spondon Hall; third, G. J. Mitchell, Newton Mount. Highly commended: G. Thomas, Littleover. The class commended.

Pair of in calf heifers, belonging to a tenant-farmer dairying not less than 12 cows.—First prize, £3, M. T. Hopkinson, Woodthorpe; second, £2, G. J. Mitchell; third, £1, J. Foster, Thulston. Highly commended: W. J. Matthews, Repton.

Pair of stirks, under two years old, best adapted for dairy-purposes, belonging to a tenant-farmer.—First prize, £3, R. Ratcliffe; second, £2, G. J. Mitchell; third, £1, J. Fox. Highly commended: T. Yates, Sapperton.

Shorthorn bull, two years old and upwards.—First prize, £5, and silver cup, Mrs. Packman, Tupton Hall; second, £3, T. Robinson, Burton-on-Trent. Highly commended: G. Bryer, Markeaton Park. Commended: T. Yates, Sapperton, and W. S. Woodroffe, Normanton-on-Soar.

Yearling Shorthorn bull.—First prize, £5, and a silver cup, R. Blackwell, Tansley; second, £3, J. Rose, The Ash; third, £2, M. Walker, Stockley Park. Highly commended: J. Raynor, Markeaton.

Bull calf not exceeding twelve months old.—First prize, £3, R. Ratcliffe, Walton; second, £2, Mrs. Packman; third, £1, J. Raynor.

Four rearing calves.—First prize, £2, S. Robson, jun., Melbourne; second, £1, H. Leeke, Holbrook.

Fat ox or steer of any breed.—First prize, £5, F. Ratcliff, Cliff House, Burton Cross; second, £2, W. T. Cox. Highly commended: G. J. Mitchell. Commended: J. Evans, Alport.

Fat cow or heifer of any breed.—First prize, £6, and a silver cup value £5, W. T. Cox; second, £4, W. T. Cox; third, £2, J. Faulkner, Bretby.

HORSES.

Stallion for agricultural purposes, two years old and upwards.—First prize, £5, J. Nix, Alfreton; second, £3, J. Borrows, Stanley.

Brood mare and foal for agricultural purposes.—First prize, £5, T. Travis; second, £3, T. Orme, Ilton; third, £2, R. Marples, Kedleston.

Cart foal.—Prize, T. Orme, Ilton.

Two year old gelding or filly for agricultural purposes.—First prize, £4, A. Tomlinson, Stenson; second, £2, A. Tomlinson; third, £1, E. Thacker, Ambaston. Highly commended: T. Bullock, Egginton.

One-year-old gelding or filly for agricultural purposes.—First prize, £4, J. Vickers, Wellington; second, £2, J. E. Griffin, Thulston. Commended: J. E. Griffin; F. Tomlinson, Stuthwood; and J. Vickers, Wellington.

Pair of horses for agricultural purposes.—First prize, £5, J. Rose, The Ash; second, £3, W. Radford, Thulston; third, £2, J. Hawksworth, Barlow.

Brood mare and foal best suited for breeding hunters and hacks.—First prize, £5, W. Parker, Alvaston; second, £3, T. H. Smith, Ambaston.

Hack or harness horse above four years.—First prize, £5, T. B. Worthington, Derby; second, £2, H. Boden, Ednaston.

Highly commended: T. Ward, Dalbury Lees. Commended: H. Boden, Ednaston.

Gelding or filly, of the value of £50, not thoroughbred, above three and under four years of age.—First prize, £5, J. Pegge, Littlelover; second, £2 10s., M. Andinwood, Weston Grange.

Gelding or filly above two and under three.—First prize, £3, G. J. Mitchell; second, £2, W. W. Woodward, Stanton-bridge.

Cob not exceeding 14 hands.—First prize, £3, the Earl of Harrington; second, £2, H. Flower, Derby.

Hunter, four years old and upwards, following the hounds hunting in Derbyshire.—First prize, £5, and a silver cup value £5, S. Robson, jun., Melbourne; second, £5, G. Wheeldon, Derby; third, £2, A. Hubbersty, Brackenfield; fourth, £1, T. H. Smith, Ambaston. The class commended.

EXTRA STOCK.—Highly commended: The Midland Railway Company, for a dray horse.

SHEEP.

LONG-WOOLS.

Five breeding ewes having had lambs in 1870.—First prize, £3, F. Dean, Kirk Ireton; second, £2, S. Wade, Mickleover; third, £1, R. Johnson, Kirk Ireton.

Five theaves.—First prize, £3, A. Bryer, Quarndon; second, £2, R. Johnson, Kirk Ireton; third, £1, J. Pegge, Littlelover

Five ewe lambs.—First prize, £2, C. Mellor, Atlow; second, £1, W. Riley, Boulton.

Ram of any age above a shearing.—First prize, £4, Fred. Dean, Kirk Ireton; second, £2, R. Johnson, Kirk Ireton; third, £1, R. Johnson.

Shearling ram.—First prize, £4, R. Lee, Kniveton; second, £2, R. Lee; third, £1, R. Johnson, Kirk Ireton. Highly commended: R. Johnson. Commended: F. Dean.

SHORT-WOOLS.

Five breeding ewes having had lambs in 1869.—First prize, £3, W. Baker, Moor Barns; second, £2, W. Baker; third, £1, C. Smith, Kirk Langley. Highly commended: J. Rose, The Ash.

Five theaves.—First prize, £3, W. Baker; second, £2, J. Rose, The Ash; third, £1, C. Smith, Kirk Langley.

Five lambs.—First prize, £2, W. Baker; second, £1, J. Rose. Commended: C. Smith.

Ram of any age above a shearing.—First prize, £4, W. Baker; second, £2, W. Wood, Holly Bank; third, £1, J. Rose. Commended: C. Smith.

Shearling ram.—First prize, £4, W. Baker; second, £2, W. Baker; third, £1, T. Robinson, Burton.

Lamb.—First prize, £2, W. Baker; second, £1, C. Smith. T. Rose, The Ash, showed six rams in this class, which were highly commended.

Pen of five fat wether sheep, of any breed, not exceeding 22 months old.—First prize, £3 3s., J. Rose; second, £2, W. Sale, Smisby.

PIGS.

LARGE BREED.

Boar of any age.—First prize, £2, M. Walker, Stockley Park; second, £1, J. B. Gregory, Ashover.

Sow of any age.—First prize, £2, J. B. Gregory, Ashover; second, £1, M. Walker. Highly commended: T. Yates, Sapperton. Commended: M. Walker.

Three breeding pigs of one litter, not exceeding 7 months

old.—First prize, £2, M. Walker; second, £1, M. Walker. The class highly commended.

SMALL BREED.

Boar of any age.—First prize, £2, and second, £1, J. Poyser, Burton-on-Trent.

Sow of any age.—First and second prizes, M. Walker. Highly commended: J. Gregory, Chellaston. Commended: J. Faulkner.

Three breeding pigs of one litter, not exceeding seven months old.—First prize, 2, J. Gregory; second, £1, G. J. Mitchell.

Pig, the property of an agricultural labourer.—First prize, £2, J. Morley, Thulston; second, £1, S. Bosworth, Chaddesden; third, 10s., T. Bosworth, Brethy.

Extra.—M. Walker, highly commended.

ROOTS.

Six roots of mangold wurtzel, to be taken from a crop of not less than two acres.—First prize, £1, J. Greatorex, Sretton; second, 10s., W. Stretton, Brizlincole.

Six swedes, to be taken from a crop of not less than two acres.—First prize, £1, J. Nuttall, Chaddesden; second, 10s., W. Stretton.

Six turnips, to be taken from a crop of not less than two acres.—First prize, £1, J. Falkner; second, 10s., M. Audinwood, jun.

Six ox cabbages, to be taken from a crop of not less than one acre.—First prize, £1, J. Greatorex; second, 10s., Wm. Stretton.

CHEESE.

Cheese of not less than 1 cwt.—First prize, £5, M. Walker, Stockley; second, £3, J. Rose, The Ash; third, £2, J. Carrington, Croxden Abbey. Highly commended: C. Bosworth, Dishley; S. Burchell, Cotton; A. Bryer, Quarndon; J. Harrison, Brailsford.

BUTTER.

Milk butter (not less than 6lbs.)—First prize, £1, J. Wood, Spondon; second, 10s., A. M. Mundy, Shipley.

Milk butter (not less than 6lbs.), made by the daughter of a member.—First prize, T. Hancock, Dale Abbey; second, 10s., J. Greatorex.

WOOL.

Three fleeces of long wool.—First prize, £2, R. Johnson, Kirk Ireton; second, £1, C. Bosworth, Dishley.

Three fleeces of short wool.—First prize, £2, J. Rose; second, £1, G. J. Mitchell.

GRAIN.

Red wheat.—First prize, £1, J. Greatorex; second, 10s., J. Pegge, Littlelover.

White wheat.—First prize, £1, J. Greatorex; second, 10s., J. Greatorex.

Barley.—First prize, £1, J. Faulkner, Brethy; second, 10s., G. J. Mitchell.

Oats.—First prize, £1, and second, 10s., J. Greatorex.

IMPLEMENTS.

Selection of implements for agricultural purposes.—First prize, £3, and a silver medal, J. and G. Haywood, Derby, for Howard's new horse-rake, and Howard's improved double-furrow plough; second, £2, and a silver medal, Ratcliff, Derby; third, £1, and a silver medal, Thompson and Upton. Highly commended for portable farm boilers, Bell, Brothers.

LEDBURY AGRICULTURAL SHOW.

JUDGES.—P. Turner, The Leen, Pembroke.

J. Bennett, The Park, Ross.

W. Price, The Vern, England's Gate.

PRIZE LIST.

CATTLE.

Two-year-old heifer of any breed, in calf or with a calf.—First prize, silver cup value £5 5s., J. V. Mutlow; second, Mrs. Bishop, Pegs Farm.

Pair of two-year-old heifers.—First prize, F. Ward, Putley; second, F. Ward.

Six best yearling heifers or steers (of either sex).—First

prize, silver cup value £5 5s., J. V. Mutlow; second, J. V. Mutlow.

Best bull of any age.—Prize, £5, R. D. Cooke, Hollens.

Aged bull.—First prize, J. Sparkman, LittleMarele; second, Rev. J. Hopton, Canon Froome.

Two-year-old bull.—First prize, M. E. Hiatt, Bosbury; second, J. Sparkman.

Yearling bull.—First prize, R. D. Cooke; second, J. V. Mutlow.

Pair of two-year-old steers.—First prize, T. Edy, Frith; second, T. Edy.

Pair of yearling steers.—First prize, J. Hickman, Mainestone; second, Mrs. Bishop.

Yearling heifer.—First prize, J. Loveridge; second, F. Ward.

Fat cow, heifer, or ox.—Prize, E. Pritchett.

Cow or heifer in calf or with a calf.—First prize, R. D. Cooke; second, Mr. Drinkwater, The Farm.

Cow or heifer for dairy purposes, in calf or with calf, of any breed.—First prize, J. V. Mutlew; second, W. Hartland, Preston Court.

SHEEP.

Ram.—First prize, T. Hartland, Bromesberrow; second, J. Hickman.

Yearling ram.—First prize, J. Hickman; second, J. Hickman.

Pen of five store ewes, long wool.—First prize, C. Badham, Stonehouse; second, C. Badham.

Pen of five store ewes, short wool.—First prize, R. Mason, Hazle; second, Mrs. Bishop.

Pen of five yearling wethers.—First prize, Lady Emily Foley; second, R. Mason.

Pen of five yearling ewes.—First prize, Lady Emily Foley; second, F. Ward.

Pen of five lambs, shorn.—Prize, W. Smith (Arnolds).

Pen of five lambs, unshorn.—Prize, J. V. Mutlow.

PIGS.

Boar pig.—First prize, J. V. Mutlow; second, J. V. Mutlow.

Breeding sow.—First prize, T. Edy; second, J. V. Mutlow. Pen of five pigs under six months old.—Prize, J. Hickman.

Pig shown by a farm labourer.—First prize, T. Jones, Preston; second, T. Green.

HORSES.

Cart mare and foal.—Prize, G. Weston, Messington.

Nag mare and foal.—Prize, J. Hickman.

Three-year-old cart colt.—First prize, W. Smith (Arnolds); second, T. Hodges.

Two-year-old cart colt.—First prize, T. Haywood, Hill Top; second, Rev. J. Hopton.

Yearling cart colt.—First prize, J. V. Mutlow; second, Rev. J. Hopton.

Three-year-old hackney colt.—First prize, J. Sparkman; second, Rev. W. G. Lyall, Castle Froome.

Two-year-old hackney colt.—First prize, Major Peyton; second, C. Badham.

Yearling hackney colt.—Prize, Rev. W. G. Lyall.

EXTRA STOCK.

To be divided at the discretion of the judges, £10: To Mr. Pritchett, for four fat oxen, £2; J. Hickman, for eight heifers, £2; R. Mason, for six two-year-old steers, £1 10s.; T. Hartland, for six heifers, £1; R. Mason, for 20 store ewes, £1 R. Mason, for 20 yearling ewes, £1; T. Haywood, for two-year-old cart colt, 10s.; R. Mason, for ten yearling wethers, 10s.; and J. Sparkman, for five pigs, 10s.

CUMBERLAND AND WESTMORELAND AGRICULTURAL SOCIETY.

MEETING AT BRAMPTON.

There was a good show of agricultural horses; and the same may be said of light horses. Shorthorn cattle were not numerously represented, but Mr. Torr said the quality was good. There was a commendable entry of sheep and pigs.

JUDGES.

SADDLE AND HARNESS HORSES.—N. Miln, Foldon Side; J. Borthwick, Monkway; J. Wilson, Woodhorn Manor, Morpeth.

DRAUGHT HORSES.—B. Spraggon, Nafferton; D. Dobie, Tinwald Park.

SHORTHORNS.—W. Torr, Aylesby Manor; M. Stephenson, jun., Fourstones.

GALLOWAY CATTLE.—R. Swan, The Brae, Dumfries; R. Smith, Lady Land.

LEICESTER LONG-WOOL AND DOWN SHEEP.—Mr. Aitchison, The Rock; Mr. Borton, Barton House; Mr. Sanday, jun., Holme Pierpoint.

CHEVIOT AND BLACKFACED SHEEP.—Mr. Archibald, Stowe; Mr. Elliot, Hindhope.

BUTTER.—Mr. Wood, Carlisle; Mr. Beattie, Longtown.

PRIZE LIST.

HORSES.

Mare with foal at her foot, for breeding hunters.—First prize, — Baxter, Bromfield; second, A. Wannop, Geltside.

Mare in foal, for breeding hunters.—First prize, T. Jefferson, Hallfist, Scaleby, Cumberland; second, T. Mark, Durdar House, Carlisle.

Four-year-old gelding for hunting.—First prize, Messrs. Thompson, Kirkhouse, near Brampton; second, W. Armstrong, Kendal.

Four-year-old filly for hunting.—First prize, Messrs. Thompson; second, G. Coulthard, Lanercost.

Three-year-old gelding for hunting.—First prize, J. Brown, Howgill, near Lanercost; second, J. Bell, Halton Lea House, near Haltwhistle.

Three-year-old filly for hunting.—J. P. Law, Cross Hill, Irthington; second, R. Brough, Rye Close, Irthington.

Two-year-old gelding for hunting.—First prize, J. S. Steel, Lathes, Kirkbride; second, Messrs. Thompson.

Two-year-old filly for hunting.—First prize, J. Milburn, Wraguire House, Carlisle; second, J. Brown.

One-year-old colt for hunting.—First prize, Messrs. Thompson; second, T. Gibbons, Burnfoot.

One-year-old filly for hunting.—Prize, Mr. Baxter, Broomfield.

Mare with foal at her foot, for breeding carriage horses.—First prize, T. Morton, Longburgh House, Carlisle; second, G. Hoadley, Wetheral Abbey.

Mare in foal, for breeding carriage horses.—First prize, J. Fawcett, Scaleby Castle; second, H. N. Fraser, Hay Close, Penrith.

Three-year-old gelding suitable for harness.—First prize, R. Stockbridge, West Cliff, Carlisle; second, T. Jefferson.

Three-year-old filly suitable for harness.—First prize, T. Morton, Longburgh House, Carlisle; second, A. Harding, Kinnion Hills, Lanercost.

Two-year-old gelding suitable for harness.—First prize, Mr. Baxter; second, Rev. W. Dacre, Irthington.

Two-year-old filly suitable for harness.—First prize, R. Brough, Rye House Close, Irthington; second, J. Reay, Prior Rigg, Irthington.

One-year-old colt suitable for harness.—First prize, J. Waugh, Mosspetteril, Haltwhistle; second, W. Phillips, Smithsteads, Lanercost.

Mare with foal at her foot, suitable for breeding agricultural horses.—First prize, T. Bell, Townfoot, Brampton; second, J. Dobinson, Throp, Gilsland; third, J. Lamb, Burrell Green, Penrith.

Mare in foal, for breeding agricultural horses.—First prize, H. N. Fraser; second, J. Lancaster, Laversdale; third, J. Lamb.

Three-year-old gelding for agricultural purposes.—First prize, W. Phillips; second, T. Bell.

Three-year-old filly for agricultural purposes.—First prize, Mrs. Carruthers, High Field Moor, Irthington; second, T. & J. Hodgson, Little Strickland Hall, near Penrith.

Two-year-old gelding for agricultural purposes.—First prize, T. Milburn, Headswood, Irthington; second, Mrs. Gibbons, Rosetrees, near Longtown.

Two-year-old filly for agricultural purposes.—First prize, J. Fisher, Knells, near Carlisle; second, J. Graham, Parcelstown, near Westlinton, Carlisle.

One-year-old colt for agricultural purposes.—First prize, Mrs. Gibbons; second, G. H. Head, Rickerby, Carlisle.

One-year-old filly for agricultural purposes.—First prize, T. Gibbons; second, J. Pigg, Cocklet Hill, Kirklington.
Pony, not exceeding fourteen hands high.—First prize, J. Lamb; second, J. Little, Whitehill, Scaleby.

Pair of horses for agricultural purposes.—First prize, T. Gibbons; second, R. & J. Little, Guards, near Gretna.

Colt foal by a thoroughbred horse.—First prize, A. Wannop; second, Rev. W. Dacre.

Filly foal by a thoroughbred horse.—Second prize, T. Morton.

Foal for agricultural purposes.—Prize, J. Graham, Warwick Land, Nichol Forest.

Hackney, rising five years old and upwards, not exceeding fifteen hands, and to be brought into the ring mounted.—First prize, J. Casson, Burgh-by-Sands, Carlisle; second, B. Spraggon, William's Wyke.

CATTLE.

Shorthorn bull, three-year-old or upwards.—First prize, Messrs. Coulthard, Smith, and Bell, Brampton; second, J. C. Bowstead, Hackthorpe Hall.

Shorthorn bull, above two and under three years old.—First prize, A. Metcalfe, Ravenstonedale, Kirkby Stephen; second, J. Creighton, Scotby.

Shorthorn bull above one and under two years old.—First prize, J. C. Bowstead; second, J. Hogarth, Julian Bower, Kirkbythore.

Shorthorn bull under one year old.—First prize, J. Lamb, Burrell Green, Penrith; second, J. J. Hetherington, Middle Farm, Brampton; third, J. Lamb.

Shorthorn cow, which must have had a calf within the twelve months previous to the day of show, and must be in-calf or milk at the time of show.—First prize, R. B. Hetherington, Park Head, Silloth; second, W. Lambert, Elrington Hall, Haydon Bridge.

Shorthorn cow or heifer, under four years old, which must have had a calf within the twelve months previous to the day of show.—Prize, A. Metcalfe, Ravenstonedale, Kirkby Stephen.

Shorthorn heifer above two and under three years old.—First prize, Sir G. Musgrave, Bart., Eden Hall; second, T. Dalzell, The Hollins, Whitelaven.

Shorthorn heifer above one and under two years old.—First prize, A. Metcalfe, Ravenstonedale, Kirkby Stephen; second, Sir G. Musgrave.

Shorthorn heifer under one year old.—Prize, J. Smith, Coat Hill, Brampton.

Shorthorn bull of any age.—First prize, Messrs. Coulthard, Smith, and Bell; second, J. C. Bowstead.

Shorthorn cow or heifer above three years old, which must have had a calf within twelve months previous to the day of show, and must be in-calf or milk at the time of show.—Prize, R. B. Hetherington, Park Head, Silloth.

Shorthorn heifer above two and under three years old.—Prize, Sir G. Musgrave.

Shorthorn heifer not exceeding two years old.—Prize, A. Metcalfe.

Medal, A. Metcalfe.

Society's Challenge Cup, A Metcalfe.

GALLOWAYS.

Bull above two years old.—First prize, J. Fisher, Knells, Carlisle; second, J. Graham, Parcelstown, West Linton.

Bull under two years old.—Prize, J. Johnstone, The Green, Longtown.

Bull calf under twelve months old.—Prize, T. Watson, Burnfoot, Haltwhistle.

Cow in-calf or milk.—First prize, G. Lowes, Chesters, Haltwhistle; second, J. Graham.

Cow or heifer under four years old, which must have had a calf within twelve months previous to the day of show.—First and second prizes, G. Lowes.

Heifer above two and under three years old.—First prize, J. Graham; second, W. Armstrong, Tarn End, Milton.

Heifer above one and under two years old.—First prize, J. Mounsey, Dovecot, Walton; second, W. Armstrong.

Cow or heifer above three years old.—Prize, G. Lowes, Chesters, Haltwhistle.

CROSS-BREDS.

Polled bullock above two years old.—First and second prizes, G. Lowes.

Polled Heifer above two years old.—Prize, G. Lowes.

Polled bullock under two years old.—Prize, G. Lowes.

Polled heifer under two years old.—First prize, Messrs. Hyslop, Denton Hall, Brampton; second, G. Lowes.

SHEEP.

Aged blue-faced Leicester tup.—First prize, J. Irving, Shap Abbey; second, J. Hogarth, Julian Bower, Kirbythore.

Shearling blue-faced Leicester tup.—First prize, Mrs. Winter, Low House, Haltwhistle; second, W. Sisson, Temple-sowerby.

Three blue-faced Leicester ewes which have reared lambs this year.—First prize, W. Sisson; second, J. Todd, Mireside, Aspatria.

Three blue-faced Leicester gimmer shearlings.—First prize, J. Todd; second, T. Sisson.

Border Leicester tup.—First prize, T. Bell, Townfoot, Brampton; second, W. Lambert, Elrington Hall, Haydon Bridge.

Border Leicester shearling tup.—First prize, G. G. Lee, Land Ends, Haydon Bridge; second, T. Bell.

Border Leicester ewes which have reared lambs this year.—First prize, J. Watson, Gelt Hall, Castlecarrock; second, G. G. Lee.

Pen of Border Leicester Gimmer shearlings.—First prize, J. Watson; second, J. J. Hetherington, Middlefarm, Brampton.

Aged long-wool tup, not being a Leicester.—First prize, W. Norman, Hall Bank, Aspatria; second, J. Irving, Shap Abbey.

Shearling long-wool tup, not being a Leicester.—First and second prizes, W. Norman.

Three long-wool ewes, not being Leicesters, which have reared lambs this year.—First and second prizes, W. Norman.

Three long-wool gimmer shearlings, not being Leicesters.—First and second prizes, W. Norman.

Aged Down tup.—First prize, Capt. Thompson, Kirkhouse, Brampton; second, W. Parker, Carleton Hill, Penrith.

Shearling Down tup.—First prize, Capt. Thompson; second, W. Parker.

Pen of Down ewes which have reared lambs this season.—First prize, J. Carrick, Flosfield, Wigton; second, W. Parker.

Pen of Down gimmer shearlings.—First prize, J. Carrick, second, W. Parker.

Aged black-faced tup.—First prize, H. Thompson, Lamperts, Gilsland; second, F. Moscrop, Butterburn, Gilsland.

Shearling black-faced tup.—First prize, Messrs. Dodd, Hopehouse, Falstone; second, F. Moscrop.

Three black-faced ewes.—First prize, J. Irving, Shap Abbey; second, H. Thompson, Lamperts, Gilsland.

Three black-faced gimmers.—First prize, H. Thompson; second, J. Irving.

Aged Cheviot tup.—First prize, J. Johnstone, Capple-gill, Moffat; second, J. Johnstone, Bodesbeck, Moffat.

Shearling Cheviot tup.—First prize, J. Johnstone, Capple-gill; second, J. Johnstone, Bodesbeck.

Three Cheviot ewes.—First and second prizes, J. Graham, Wyliesyke, Gilsland.

Three Cheviot gimmer shearlings.—First prize, J. A. Johnstone, Archbank, Moffat; second, J. Graham.

PIGS.

Boar of the large breed.—Prize, J. Hetherington, Crosby, Carlisle.

Boar of the small breed.—Prize, R. and J. Little, Guards, Gretna.

Sow pigs of the large breed, of any age, in-pig or milk.—Prize, J. C. Bowstead, Hackthorpe Hall, Penrith.

Sow pig of the small breed, of any age, in-pig or milk.—First prize, G. Foster, Wetheral; second, Rev. W. Dacre, Irthington, Brampton.

Pig belonging to a cottager, labourer, or artisan.—First and second prizes, C. Bendle, Brampton; third, J. Whitfield, Lillies House, Laversdale; fourth, R. Carruthers, Laversdale, Irthington.

BUTTER.

Best basket (5lbs.)—Miss Wannop, Brunstock; second, Mrs. Wannop, Wallhead, Crosby-on-Eden; third, Miss Dobinson, Throp, Gilsland; fourth, Mrs. Storey, Wallhead, Crosby-on-Eden.

Best firkin of butter.—First prize, Mrs. Dobson, Solmaine, Walton; second, Mrs. Graham, Red Hill.

STAFFORDSHIRE AGRICULTURAL SOCIETY.

MEETING AT WALSALL.

The show of cattle was inferior to that of many former years, especially in the number of entries. The obvious reasons are—first, the exceptional dryness of the season; and, secondly, the prevalence of the foot-and-mouth disease, which has had the effect in all parts of the country of deterring owners of valuable animals from incurring the risks attending gatherings of this description. At the same time there was a good proportion of really prize animals exhibited. With regard to the dairy stock, it may be stated that, with one exception, the whole of the six bulls exhibited were good animals; but, so far as the pairs of dairy cows were concerned, it must be pointed out that only one pair were in true dairy condition, the remainder being so burdened with fat that the judges withheld the second prize. It is not at all unlikely that when exhibitors see that judges insist upon dairy cows being shown in their proper condition the competition in this class will be increased. There was not a single entry in the class of in-calf heifers in pairs not exceeding two years old, and only two in the next class of heifers under two years old, but these latter were all fine animals. In the class of fat cattle there were only five entries. The competition for the first prize was very close between the Shorthorn cow of the Marquis of Anglesey and Lord Hatherton's Hereford ox; and the latter was the favourite with the public.

In Leicester sheep only one class showed more than two entries, and therefore the competition was little more than nominal. The remaining specimens of the longwool breeds were respectable, but not remarkable in point of quality. The entries of Shropshire sheep were, as was to be expected from the greater favour with which the breed is regarded in the county, much more numerous.

The show of pigs was one of the best ever made at the meetings of the Staffordshire Society; but still Mr. T. Walker carried nearly all before him. He secured a medal and no less than five out of eight first prizes, besides one or two minor distinctions.

The show of horses for hunting and hackney purposes was not, taken as a whole, of the superior character one might have reasonably expected at a meeting of a Society which includes within its district four good packs of foxhounds, and under whose auspices such handsome prizes are offered. The classes were somewhat differently arranged to last year. For weight-carrying hunters Lord Hatherton offered a prize of £20 and the Walsall Committee one of £10, and for these prizes there were five competitors. Both prizes were awarded to Mr. A. Harrison, of Edgbaston; the first for his chestnut Rob Roy, up to most weight, and the second to his brown horse Mulatto, which showed a deal more breed, style, and action, but was not quite up to the weight. The light-weight hunters were decidedly the best of the lot, the three noticed horses especially being very superior animals. The £25 offered by the gentlemen of Mr. Meynell Ingram's Hunt only attracted a moderate class; and mares with foals at foot, suitable for breeding hunters, were below the mark with the exception of the first prize animal. There were only two entries in the class for mares in foal best suited for hackney purposes, and neither call for special remark. The hackneys, though a larger class, were not as a rule superior animals, and the same remark applies with even more force to the cobs, which were an indifferent lot. The horses for agricultural purposes were less meritorious, and only attracted an entry of 22, all told. By far the best class was that for entire horses, in which some good animals were exhibited. Mr. M'Lean's handsome prize of £25 was taken by a fine, powerful animal, Crown Prince, belonging to Mr. Enston, Warwick, who came on accredited with honours from other meetings; and Mr. J. Manning's Champion, also a very good horse, was second.

The show of thick cheese was moderately good, but the quality was not by any means equal to that of the thin cheese exhibited. In this latter class there were 15 entries as against five only in the former. There was a very fair show of butter. The roots, considering the season, were remarkably good.

There were some capital mangolds, and the quality of the swede turnips was surprising after the long drought of the past summer. The kohlrabi in Mr. Fleming's first prize collection was exceedingly fine. The potatoes also were very good. The show of grain was exceedingly good, the white wheat especially, the prizes offered for which excited the most competition, being of superior quality. Barley and oats only had three competitors each, but the prize samples were good as regards colour and size.

JUDGES.

SHORTHORNS AND FAT CATTLE.—Savidge, Sarsden, Chipping Norton; H. Lowe, Comberford, Tamworth.
 SHROPSHIRE SHEEP AND PIGS.—T. Mansell, Ercall, Wellington; J. Hardy, Kinner Hill, Stourbridge.
 DAIRY COWS AND LEICESTER SHEEP.—F. Smith, Ashborne Grange; — Stevenson, jun., Sweptstone, Ashby-de-la-Zouch.
 HORSES.—Agricultural: — Wright, Hollington, Longford; J. Ward, Kiddemore, Brewood.
 HUNTERS: W. T. Stauley, Leamington; H. Corbet, Farmers' Club, London.
 CHEESE.—S. W. Cox, Derby; H. E. Emberlin, Leicester; J. Daniel, Burton-on-Trent; T. H. Smith, Clifton, Ashborne.
 IMPLEMENTS.—J. J. Rowley, Rowthorne, Chesterfield; R. Craven, Uttoxeter; — Brewster, Bulderton, Middle Salop; W. Cover, Bryanote, Stafford.

PRIZE LIST.

CATTLE.

SHORTHORNS.

Bulls.—First prize, £10, and the Society's silver medal, Rev. W. Sneyd, Keele Hall, Newcastle (Ironmaster); second, £5, S. Burchall, Catton, Burton-on-Trent (Grand Duke of Essex). Highly commended, T. Hands, Cauley, Coventry (Lord Lavender).

Yearling bull.—First prize, £10, and silver medal, W. Bradburn, Wednesfield, Wolverhampton (White Satin); second, £5, W. Sneyd (Prince Patrick).

Bull calf.—First prize, £5, W. Sneyd (Lord of the Manor); second, £2 10s., R. Ratcliff, Walton Hall, Burton-on-Trent.

Cows.—Prize, £6, R. Ratcliff.

In-calf heifers, in pairs, not exceeding three years old.—First prize, £6, W. Sneyd; second, £4, T. Hands. Highly commended, R. Ratcliff.

Heifers, in pairs, under two years old.—First prize, £3, R. Ratcliff; second, £3, T. Hands. Highly commended, C. Stubbs, Preston Hall, Penkridge.

ANY BREED ADAPTED FOR DAIRY PURPOSES.

Bulls.—First prize, £10, and silver medal, W. Loverock, Horninglow, Burton-on-Trent (Duke of Sutherland); second, £5, T. Nash, Featherstone, Wolverhampton (Nimrod). Highly commended, T. Nash (4th Duke of Claro); commended, J. Booth, Shenstone, Lichfield (Radford).

Cows, in pairs.—Prize, £10, T. C. Smith, Birdsgrove, Ashbourne.

Heifers, in pairs, under two years old.—First prize, £4, W. Bradburn (Ammonia and Moss Rose); second, £2, J. Brawn, Bosses, Shenstone, Lichfield.

FAT CATTLE.

First prize, silver cup, £10, the Marquis of Anglesey, Beaudesert, Rugeley (Shorthorn cow); second, £5, Lord Hatherton, Teddesley Hall, Penkridge (Hereford ox).

SHEEP.

LEICESTER OR OTHER LONGWOOLS.

Ram.—First prize, £5, R. Johnson, Kirkireton, Wirksworth; second, £3, R. Johnson.

Shearling ram.—First prize, £5, and silver medal, R. Johnson; second, C. Mellor, Atlow, Ashborne. Highly commended, R. Johnson and C. Mellor.

Ram lamb.—First prize, £3, R. Johnson; second, £2, R. Johnson. Highly commended, C. Mellor.

Breeding ewes, pen of five.—First prize, £3, R. Johnson; second, A. Bryer, Quarndon, Derby.

Shearling ewes, pen of five.—First prize, £3, R. Johnson; second, A. Bryer.

Ewe lambs, pen of five.—Prize, R. Johnson.

SHROPSHIRE.

Ram.—First prize, £5, W. Baker, Moorbarns, Atherstone; second, W. Wood, Holly Bank, Burton-on-Trent. Highly commended, the Earl of Bradford, Weston, Shifnal.

Shearling ram.—First prize, £5, and silver medal, J. Coxon, Freeford, Lichfield; second, C. Stubbs. Highly commended, W. Wood; commended, W. Baker.

Ram lamb.—First prize, £3, J. Stubbs, Weston, Stafford; second, £2, W. Stubbs, Stockton, Stafford. Highly commended, Rev. E. Creswell, Seighford, Stafford.

Breeding ewes, pen of five.—First prize, £5, J. H. Bradburne, Pipe-place, Lichfield; second, £3, W. Baker. Highly commended, C. R. Keeling, Penkridge.

Ewe lambs, pen of five.—First prize, £3, W. Baker; second, £2, J. Coxon. Highly commended, C. Smith, Kirk Langley, Derby.

PIGS.

Boars of a large breed.—First prize, £3, M. Walker, Stockley, Anslow, Burton-on-Trent; second, £2, H. Tomlinson, Blithford, Rugeley. Commended, T. Bantock, Merridale, Wolverhampton.

Breeding sow of a large breed.—First prize, £3, M. Walker; second, £2, H. Tomlinson, Rugeley. Highly commended, T. Bantock, Wolverhampton. Commended, M. Walker.

Boar of a small breed.—First prize, £3 and silver medal, M. Walker; second, £2, J. T. Poyser, Burton-on-Trent.

Breeding sow of a small breed.—First prize, £3, and second, £2, M. Walker. Commended, Rev. W. Sneyd, Newcastle.

Boar of the Berkshire breed.—First prize, £3 and silver medal, R. Wyatt, Stafford; second, £2, Dr. J. D. Hewson, Stafford.

Breeding sow of the Berkshire breed.—First prize, £3, the Earl of Bradford; second, £2, Dr. J. D. Hewson. Highly commended, R. Wyatt.

Pen of not less than three pigs, same litter, of a large breed, above three and under six months old.—First prize, £3, and second, £2, M. Walker.

Pen of not less than three pigs, same litter, of the Berkshire breed, above three and under six months old.—Prize, £3, the Earl of Bradford.

HORSES.

FOR AGRICULTURAL PURPOSES.

Entire horses (open to the United Kingdom).—First prize, £25 and silver medal, W. Euston, Claverdon, Warwick (Crown Prince); second, £15, J. Manning, Orinbury, Wellingborough (Champion). Highly commended, R. Orange, Bellington, Morpeth, Clydesdale (Conqueror).

Mare and foal.—Prize, £8, R. Swale, Saredon, Wolverhampton (Madam).

Two-year-old gelding or filly.—First prize, £5, E. Tongue, Aldridge, Walsall (The Drummer); second, £3, W. Masfen, Norton Canes, Cannock, Stafford. Highly commended, W. S. Tavernor, Ubbertley, Stoke-on-Trent (Bell).

Yearling gelding or filly.—First prize, £5, J. Hawksworth, Barton Fields, Derby (Darling); second, £3, T. C. Ball, Prestwood, Ellastone, Ashborne. Highly commended, J. Hawksworth (Boss).

FOR HUNTING PURPOSES.

Hunting horse or mare, equal to 15 stone.—First prize, £20, A. Harrison, Metchley, Edgbaston (Rob Roy); second, £10, A. Harrison (Mulatto). Commended, H. Morris, St. Thomas, Stafford.

Hunting horse or mare, equal to 12 stone.—First prize, £15, T. H. Walwyn, Doveridge, Uttoxeter (Princess); second, £5, B. Gilpin, Longford, Cannock. Highly commended, A. Harrison (Sultan).

Class 39.—First prize, £15, C. A. Pratt, Shenton, Nuneaton (Flirt); second, £10, C. Stubbs, Preston Hill, Penkridge (Sandon). Commended, J. S. Clay, Branstone, Burton-on-Trent.

Mare with a foal at foot, suitable for breeding hunters.—First prize, £6, T. W. Gardom, Butterton Park, Newcastle (Brazenose); second, £4, the Stonetrough Colliery Company, Lawton, Cheshire (The Fawn).

Mare in foal or with foal at foot, best suited for hackney or

roadster purposes.—First prize, £6, Lord Hatherton (Fanny); second, £4, J. Coxon.

Hackney mare or gelding, not exceeding 15 hands 2 inches.—First prize, £6, F. James, Aldridge, Walsall (Topsy); second, £4, F. James (Punch).

EXTRA STOCK.

HORSES.—Medals to Lord Hatherton (harness horse), T. A. Negus, Lynn, Walsall (dray horse).

SHEEP.—Medals to C. Smith, Kirk Langley, Derby; J. Coxon; R. M. Wright, Coppenhall, Staffordshire.

PIGS.—Medal to M. Walker.

CHEESE.

Thick cheese.—First prize, £9, T. Woolf, Standon Hall, Eccleshall; second, £6, T. Simon, Ternhill, Market Drayton; third, £4, T. Ashcroft, Walford, Eccleshall; fourth, £2 10s., C. Byrd, Littywood, Stafford.

Thin cheese.—First prize, £9, M. Walker, Stockley, with special prize for best cheese in yard; second, £6, J. Carrington, Croxton, Uttoxeter; third, £4, J. Smith, Spon Farm, Alton, Cheadle; 4th, £2 10s., J. Hawksworth, Barton Fields, Derby. Commended, W. Smith, Rangemoor, Burton-on-Trent; H. Tomlinson, Blithford, Rugeley; Mrs. Ward, Gravely Bank, Uttoxeter.

Thin cheese.—First prize, £10, M. Walker; second, £5, S. Burchall, Catton, Burton-on-Trent. Highly commended, J. Carrington; Mrs. Ward; J. Smith. Commended, J. Hawkeswood, Barton, Derby; W. T. Carrington.

BUTTER.

First prize, £3, F. H. Yates, Great Burr, Birmingham; second, £2, W. Masfen; third, £1, Mrs. Bond, Draycott, Cheadle. Commended, J. T. Poyser, Stapenhill, Burton-on-Trent; The Stonetrough Colliery Co.; J. Booth, Shenstone; E. Rowley, Norton Canes, Stafford.

CORN.

White wheat.—First prize, £2, J. Greatorex, Stretton, Burton-on-Trent; second, £1, R. H. Masfen, Pendeford, Wolverhampton. Commended, J. Greatorex.

Red wheat.—First prize, £2, J. Greatorex; second, £1, W. T. Carrington.

Barley.—First prize, £2, J. Greatorex; second, £1, R. H. Masfen.

Oats.—First prize, £2, J. Greatorex; second, £1, R. Masfen.

AGRICULTURAL ROOTS.

Ox cabbage.—Prize, £2, J. Greatorex.

Late potatoes (any variety).—Prize, £2, W. W. Pearce, Measham, Atherstone. Highly commended, G. Fleming, Groundslow, Stone; W. T. Carrington.

Collection of roots (not less than three varieties).—Prize, £3, G. Fleming. Highly commended, J. Greatorex; T. Bantock, Merridale House, Wolverhampton.

IMPLEMENTS.

SILVER MEDALS to J. T. Mackall, Union-street, London, for general joining; J. Perkins, Yoxall, for plough with steel breast; T. Corbett, Shrewsbury, for single plough, and for double-action turnip-cutter; Richmond and Chandler, Salford, for chaff-cutter; G. Murray, Derby, for a model of working plant for cheese factory on American principle; T. Bradford and Co., London and Manchester, for "vowel A" washing machine; Southwell and Co., Rugeley, for combined sheep-rack and trough; Gower and Son, Market Drayton, for 12-foot broadcast machine for clover and ryegrass, with double box to keep the seeds separate; Ball and Son, Northampton, for plough with lever neck; Lambert Brothers, Walsall, for stand of pumps, steam and water fittings, and wrought-iron tubes; W. S. Underhill, Newport, Salop, for double plough, and for five-horse steam-engine; Robey and Co. (Limited), for eight-horse single cylinder steam-engine; S. Corbett and Son, Wellington, for root-pulper; Woods, Cocksedge, and Warner, for two-horse gear; Mellard's Trent Foundry (Limited), Rugeley, for double-roller oil-cake breaker. Money prizes (20s., unless otherwise stated): J. Barnes, Shenstone, Howard's patent iron plough, Ransome and Sims' iron plough, Ball and Son's nine-tined cultivator; J. Perkins, on expanding horse-hoe; T. Corbett, two-horse-gear and one-horse cart; J. Le Butt, Bury St. Edmunds, corn screen; G. Ball, Rugby, carts (2 prizes); Southwell and Co., improved plough, and double or Cheddar cheese-press; Gower and Son, coulters corn-bill; Ball and Son, waggon (40s.); Mellard's Trent Foundry, horse-power gear, seven-tined cultivator, and patent churn.

WEST TEVIOTDALE AGRICULTURAL SOCIETY.

The annual exhibition of this society took place in the Loch Park, Hawick. The weather was fine, but the attendance was limited. The display of stock, though including first-class animals in some departments, was on the whole very meagre. In the class of cattle, the quality was good; the prize Ayrshire being as pretty a little animal as ever graced a show. In the class of Leicester sheep, some well-known prize-takers of former years did not put in an appearance, but Mr. Wilson, who has lately turned careful attention to this department, made up for the absence of many. In the Cheviot class, always the leading feature of this show, the competition was numerically below the average, but the quality for the chief premiums was good.

JUDGES.

CHEVIOT SHEEP.—Mr. Scott, Gilmansclueich; Mr. Elliot, Hartwoodmyres; and Mr. Shortreed, Attonburn.
CATTLE, LEICESTER SHEEP, AND HORSES.—Mr. Amos, Earlside; Mr. Scott, Hawford; and Mr. Swan, Bush.

PRIZE LIST.

CATTLE.

Shorthorn bull.—First prize, Messrs. Ayres, Hallrule; second, Mr. Amos, Earlside.

Shorthorn milch cow, in regular milk at the time of the show.—First prize, Mr. Wilson, Midshields; second, Mr. Turnbull, Burnfoot.

Ayrshire cow, calved after 1st January last, and in regular milk when shown.—First prize, Mr. Hadon, Honeyburn; second, J. Henderson, hind, Honeyburn.

Shorthorn quey, two years old, calved subsequent to 1st January, 1868.—First and second prizes, Mr. Turnbull.

Shorthorn quey stirk, calved subsequent to 1st January, 1869.—First and second prizes, Mr. Turnbull.

SHEEP.

LEICESTERS.

Best tup, of any age, shearing excepted, to be used within the district for the ensuing season.—First prize, Mr. Haddon; second, Mr. Selby, Hassendenbank.

Best pen of five gimmers.—First prize, Mr. Wilson; second, Mr. Selby.

Best pen of five ewes.—First prize, Mr. Wilson; second, Mr. Selby.

HALF-BREDS.

Best pen of five ewes.—Prize, Mr. Wilson.

Best pen of five gimmers.—Prize, Mr. Wilson.

CHEVIOTS.

Tup of any age, to be used in the district for the ensuing season.—First prize, Mr. Aitchison, Linhope; second, Mr. Grieve, Skelfhill.

Two tups, two years old, to be used in district.—First prize, Mr. Grieve; second, Mr. Aitchison.

Two shearing tups, to be used in the district.—First, Mr. Oliver, Howpasley; second, Mr. Turnbull, Falmash.

Pen of five ewes, from the hill.—Prize, Mr. Paterson, Chapellhill.

Pen of five ewes, without restriction.—Prize, Mr. Grieve.

Pen of five gimmers or shearing ewes.—Prize, Mr. Oliver.

Pen of five ewe-lambs, from the hill, lambed after 11th April last, bred by competitor.—Prize, Mr. Grieve.

HORSES.

Mare for breeding draught horses, with foal at foot, bona fide the property and in the possession of any member of the Society from 1st January last.—First prize, Mr. Fenwick, Northouse; second, Mr. Paterson.

Two-year-old draught colt or filly, belonging to a member of the Society, and having been his property for six months previous to the show.—First prize, Mr. Aitchison, Winningtonrigg; second, Mr. Forsyth, Ashybank.

Draught mare or gelding, above three years old, belonging to the exhibitor.—First prize, Mr. Wilson; second, Mr. Blythe, Whitriggs.

THE FLAX EXTENSION ASSOCIATION IN IRELAND.

The bi-monthly meeting of the council of this association was held in Dublin, Mr. J. W. Mc'Master in the chair.

The Secretary, Mr. Andrews, read the following report for September. At the last meeting of the council of this association, which was held in July, a very full and satisfactory report of the Irish flax crop was presented, and which, in accordance with the resolution then passed, was printed and extensively circulated. Subsequent reports received from farmers and scutch-mill owners corroborate the favourable statement then made regarding the anticipated produce per acre; but, owing to the hot weather which occurred when a large portion of the crop was on the grass, the quality has in some instances been injured. A circular, in consequence, was issued, recommending farmers to keep their flax in stack for some time before scutching it, with the object of remedying, to some extent, the injury which had been done. Early in the month of August your secretary made a short tour through some of the flax districts in the county of Donegal. The places visited were Stranorlar, Donegal, Mount Charles, Letterkenny, Ramelton, and Lifford. Owing to the favourable season, the flax crop was exceptionally good. In some localities the culture is not done with much care, and the preparation of the fibre is indifferent; but this is likely to be remedied, as the farmers are becoming more willing to receive advice and guidance as to the management of their flax crop than formerly. On the 10th of last month the return of acreage under flax in Ireland was received from the Registrar-General, an abstract of which was promptly printed and circulated among the local, English, and Scotch trade. This return showed a decrease in the area appropriated to flax in every province except Munster, which exhibited a marked increase. The Munster flax markets, which were arranged by this association, have contributed to produce this result—having been attended during the past two seasons by buyers from northern spinning firms; and it is hoped the same support will be rendered this season at the markets already fixed, of which circulars have been issued. Delay has, in some instances, occurred in the erection of scutch mills, to which aid was given by this association, arising from the difficulty of arranging for the sites. In one instance, owing to this cause, a contemplated mill had to be abandoned for this season. New applications for assistance towards proposed scutch mills will be submitted this day for your consideration, and the necessity is pressing for scutching accommodation in the districts where these mills are projected. Scutchers have been engaged and sent to the south and west, and further applications have been made, which are being attended to. In every case the engagements have been made by the week. The introduction of skilled northern scutchers into these localities is of paramount importance to flax growers. The Belgian scutching machine, moved by hand-power, to which allusion was made in last report, has been tested, and found to clean flax admirably; and, from the lightness of the handles, the quantity of tow made is now reduced to a minimum. With the application of horse power to maintain the requisite speed, this machine would be invaluable to flax farmers. A hand-breaker has also been received from Belgium, which would be of advantage in districts where hand-scutching is practised, and would be a great improvement on the mode by which flax is at present broken in these districts. From the simplicity of its construction it is inexpensive. It is intended shortly to issue query slips, with the view of obtaining the necessary information, to arrive at an approximate of the average yield per acre, this season, of the flax crop in Ireland.

Resolutions were passed confirming the several loans to scutch-mills alluded to in the report, and a cheque was signed in payment of grants to scutch-mills, sanctioned at the present meeting, and also at the meeting held on the 21st July last.

THE NEW REGULATIONS FOR THE INSURANCE OF FARMING STOCK.

[The following is a full report of the meeting, of which we have already given the chief points.]

A meeting of the Norfolk Chamber of Agriculture was held at Norwich, Mr. C. S. Read, M.P., the President, in the chair.

The CHAIRMAN called upon Mr. T. Brown to open the discussion.

Mr. BROWN said: Doubtless many of you have received a circular from the directors of the office in which you insure your property against fire—a circular that with kind, almost paternal care, instructs you as to the amount at which you must insure your property and how you shall insure it. Perhaps I had better read one of the circulars, but before doing so, I would notice the capricious manner in which they have been issued. Say there are four farmers in a village; in one case three out of the four shall have received a circular; in another two of the four shall have received one; and in a third case but one of the four. I know an instance of three brothers, two living in one parish and the other in the parish adjoining; all insure in the same office, through the same agent; one has received a circular and the other two have not. Again, some persons received the circular quite three weeks ago, others but a day or two since, and many others have not received one at all. I will not trust myself to speak of the shortness of the notice, but will now read the precious document:

“Norwich Union Fire Insurance Society,

Surrey-street, Norwich, 15th August, 1870.

“DEAR SIR,—The continuous bad results of farming stock business have led the Fire Insurance Offices to consider how far they may be obviated by increasing the amount of the insurance to the value, and by ceasing the practice of grouping in one or two sums so many different objects of insurance. The result of the deliberation is, that the offices have all agreed only to renew their farming stock policies on the understanding that if a fire occurs, and it turns out that a farmer is not insured up to three-fourths of the then value of his *agricultural produce*, the office will be only liable to make good such proportion of the damage as the sum insured bears to the full value. In your case if the amount you now insure proves equal to three-fourths of the entire value, the condition will not apply; but if you consider the amount is below three-fourths, you will please yourself whether you increase your insurance, or prefer a settlement (in the event of loss) under the above conditions of proportion.

“In future you will find the notice duly incorporated in your receipt.

“With regard to the insurance of different items of risk in one sum, the office has decided in all new policies to divide the insurance into three heads, viz.:

“1. Agricultural produce, inclusive of growing crops, also hops, seeds, roots, fruit, wool, cheese, cider, artificial and other food for cattle, and manures, grown on, or to be used upon the farm, but not including hops and grain undergoing any process of drying.

“2. Implements and utensils of husbandry worked by hand or horse-power, only on the said farm, for which not more than £40 shall be paid for loss on any one article, unless especially mentioned.

“3. Live stock on the said farm, for which not more than £40 shall be paid for loss on any one animal, unless specially mentioned.

“No increase of rate is proposed by the offices, except under special circumstances.

“I am, dear sir, yours truly

“SAMUEL BIGNOLD, Secretary.”

Fearful that we should not quite understand the circular, they have been kind enough to explain it for us in a memorandum:

“Every policy under which agricultural produce and farmings stock are insured, will hereafter be subject to the following special condition:

“If the sum insured on agricultural produce, either separately or in one amount with other property, shall, at the breaking out of a fire, be less than three-fourths of the value

of all the property insured in that amount, then this Company shall be liable only for such a proportion of the loss sustained as the sum so insured shall bear to the total value of all the property to which such sum applies.”

Then they give us an illustration:

“A farmer insures his agricultural produce and farming stock for £300, and at the breaking out of a fire the value of the property amounts to £400, the sum insured, therefore, being three-fourths the value of the property, the whole amount of loss up to £300 will be payable.

“But if the value of the property be over £400, say £500, then the office will only pay such proportion of the loss as the sum insured bears to the value of the property, viz., three-fourths; and similarly in any other case where the sum insured is less than three-fourths the value of the property at the time of fire.”

That is to say, if a person insures for £1,000, the value of his property when a fire occurs being £3,000, should he sustain a loss of £600 the office will only pay £200. To further illustrate the matter. We will suppose that the insured occupies a farm of 1,000 acres of average land. The value of his property when he insures will probably be about £8,000. To entitle him to recover from the insurance office the full amount of loss he may sustain by fire he must insure to the amount of three-fourths of the value of such property—that is, £6,000. If he insures for £4,000, he will be entitled to but one-half his loss; if for £2,000, he will be entitled to but one-fourth. I now proceed to analyse the £8,000. I will assume the value of the corn and hay crop to be £4,000; the value of the implements and utensils of husbandry, exclusive of steam machinery, to be £600; and that of the live stock to be £3,400. Again, I will assume that the value of the sheep on such a farm amounts to £2,000. Now, the risk of loss from fire on sheep is next to nothing; therefore that item of one-fourth may be fairly struck off. The risk of loss from fire on the horses, cattle, and implements may be represented by £1,000; therefore the total risk by the office would be £5,000. Now, if such be, as I believe it to be, a fair representation, are we to be told that to entitle such an insured person to recover the full amount of loss he may sustain by fire that he must insure for £6,000? Why the idea is preposterous! I say that in the case which I have assumed an insurance of £2,000 is ample. And I will tell you why. I have shown that the risk of fire at the time of insurance only amounts to £5,000; before Christmas that risk will be reduced at least one-third—say to £3,000; by Lady-day it will be reduced three-fourths—say to £1,000; and by the 1st of June, just before the hay crop is secured, it will probably be reduced to £500. Therefore, an insurance of £2,000 would represent more than the average risk, and yet we are informed that to entitle such an insured person to recover the full amount of any loss he may sustain by fire he must insure for £6,000. Note the moderation of these directors—they don't propose any increase of the rate of insurance; they only say that in the case which I have assumed, and in which I think I have shown that an insurance of £2,000 is ample—that you must insure for £6,000, the amount of premium payable at the present rate being on £2,000, £5, and that on £6,000 being £15—an increase of only 200 per cent! I would ask who are these directors? Are they gentlemen versed in the law, are they merchants, are they manufacturers, are they brewers, are they persons conversant with agricultural affairs, or are they gods, that they thus issue their mandates? I very much mistake you, gentlemen, if you will submit to, if you will not spurn, such arrogant dictation. But I am told, and that by an intelligent and much respected agent of an insurance office in this county, that these directors do not mean what they say, that they only mean their circular to apply to agricultural produce—that is, to the hay and corn crop. I am afraid the dictum of this gentleman would not hold good in a court of law—but supposing him to be correct in his reading, all I desire to say is that it is a pity these directors did not attend school long enough to enable them to

explain their meeting. I well recollect these directors—these would-be dictators—issuing an instruction to their agents to the following effect: That steam machinery must at the time of insurance be insured to its full value, and that such insurance must be reduced yearly twenty per cent., that is, if the value of such machinery was £300, it must first be insured to that amount; the second year the insurance was to be £240, the third year £180, the fourth £120, the fifth £60, and the following year it would be uninsurable, although the machinery, if kept in good repair, might be nearly as valuable as when first insured. Now it strikes me that the instructions which many of us have received betrays the same degree of arrogance and incapacity as the circular to which I have just alluded. These directors say that the insurance on farming stock does not pay. If that statement is correct, and I will assume that it is, although a short time since they gave us a bonus on such insurance—if such statement is correct, then I say their legitimate course is either to increase the rate of such insurances generally, or, what would be a far better course, to vary the rate according to the risk. Now the risk on a farm, say in West Norfolk, where the corn is stacked in the field on which it grows, is much less than where the whole corn crop is collected in a stackyard, as it is in some of the fen districts. Therefore, I say, according to the risk so let the insurance be. In fine, I say to these directors vary your rate of insurance, increase your rate if the present rate does not pay, but don't attempt to dictate to us how much we shall insure, or how we shall insure it. Well, I have said that as this subject required but little explanation, so it appeared to me that our course of action respecting it was plain and unimpeachable. That course I take to be, in the first instance, the appointment of a committee. Should you agree with that course, and I believe you will, I presume the first step such committee would take would be to seek an interview with the directors of the Norwich Union Fire Office, they holding, I believe, the largest amount of insurances of farming stock of any office in the kingdom. If at such interview your committee should fail to convince these directors of the error of their ways, then I suppose your committee would counsel you to start an insurance company of your own. Much as I dislike companies of any kind, in such a case I shall be prepared, and I hereby pledge myself to take a full proportion of shares according to my means. Mr. Brown concluded by moving the following resolution: "That a committee of five members be appointed to take such action in the matter of the new Fire Insurance Regulations as they may deem necessary."

Mr. W. FLATT, who seconded the motion, said he considered that Mr. Brown had exhausted the subject, and expressed his concurrence in Mr. Brown's protest against the farmers being dictated to in the matter of how they should insure their produce, what amount they should put upon it, or anything of the kind. If the insurance on farming produce did not pay the offices—of course no man took business unless it paid him, though farmers unfortunately did so sometimes—let the rates be raised, for that was the fair way of proceeding. In West Norfolk, where he resided, corn was never found stacked anywhere but where it was grown, and if a man insured for three-fourths at the commencement of the harvest, or when his grain was stacked, it might be fair and proper to take an average, for the farmer would be fairly insured, and the offices ought to be satisfied. Farmers could not shut their eyes to the fact of this being a business transaction; and if the offices said: "We won't have you," then as a matter of course they must attend to their own interest, and do the best they could. Mr. Flatt trusted that the directors of the fire offices would yet see the error of their ways, retrace their steps, and so put the farmers into a fair position.

Mr. C. E. BIGNOLD said that the directors of the Norwich Union Fire Office would be the last persons to oppose Mr. Brown's resolution, because it was their wish to have an amicable understanding with the farmers, not only of Norfolk, but throughout the kingdom. While regretting that there was not one of the directors present to explain the matter, Mr. Bignold said he was certain that if the resolution were agreed to and a deputation of five gentlemen appointed to wait upon the directors of the Norwich Union Office, that that body would endeavour, as far as possible, to meet their views to the extent they were able. But it must be remembered

that the resolutions combined in the circular were not those of the Norwich Union Office alone—they were the resolutions of all the offices throughout the kingdom, founded on facts which Mr. Brown himself could not gainsay. A statement of ten years' working of all the fire offices in England showed for the first five years a bare profit, and for the last five years a positive loss, and that throughout the whole country. What course could the offices adopt except either raising the rate, and that largely, or to see that the farmers generally—he did not say those round about them—were insured more closely up to the value. It was proposed to raise the rate. That was carried with but two dissentients—two large offices—so it was felt that as the offices generally would not one and all raise the rate, that point must be dropped. The other point was then considered, and it was the most essential. Time was when farming stock was insured at 1s. 6d. per cent. The rate then went up to 2s., 3s., and 4s. Ten years ago, in 1859, the rate was raised to 5s. In each case, it would be observed, the rate was raised because the previous rate had not paid. There must be something wrong, then, in the mode of conducting the business, and, in inserting the average clause, the offices were endeavouring, if they could, to place the business on a fairer basis. Mr. Brown had said that the office asked him to insure on the supposition that his stock was worth £8,000. Now Mr. Brown had made a great mistake in his figures. If Mr. Brown's whole stock were worth £8,000, for the purpose of ascertaining 3-4ths the value on his agricultural produce, he must deduct £2,000 the value of his sheep, and £1,000 the value of his horses and implements, as on these he had the option of insuring any sum he liked, without the average clause being enforced—but with regard to the remaining £5,000 he must be covered up to 3-4th its value, unless he preferred his loss being settled under conditions of proportion. Mr. Brown himself has supplied an argument: he says, "I stack in the fields, and therefore I cannot lose more than £2,000 by any fire." But were the offices for a premium on £2,000 to undertake a risk in a half a dozen places? that would be palpably unjust.

Mr. BROWN: I did not say so.

Mr. BIGNOLD: You said it was so in West Norfolk particularly. All the offices asked was that gentlemen should insure up to such a fair value as would pay them. The directors of the Norwich Union could show them—he did not feel justified in doing it—that the farming stock business had cost the proprietors during the last ten years £4,000 a year—£4,000 a year had they paid more than they had received. It therefore stood to reason that something must be done, and what had been done he hoped was only fair and right. On reading the circular put before the Chamber he could not see how it said that farmers must insure 3-4ths on all their property, if it were divided. It said, "The result of the deliberation is, that the offices have all agreed only to renew their farming stock policies on the understanding that if a fire occurs, and it turns out that a farmer is not insured up to 3-4ths of the then value of his agricultural produce, the office will only be liable to make good such a proportion of the damage as the sum insured bears to the full value." How did Mr. Brown from that arrive at his conclusion?

Mr. BROWN: I am not bound to find the English.

Mr. BIGNOLD: But I have found the English. It does not say a word about implements and utensils in husbandry; it says especially, "agricultural produce." I trust that objection is sufficiently explained. Mr. Bignold again said that, with regard to insurance on live stock, every farmer could do as he pleased in the amount he placed upon it. Some gentlemen made a mistake in supposing that there was no risk upon live stock. This year the Norwich Union must have paid 200 different claims for losses of live stock by lightning; sometimes the amounts were £50, £60, or £70, though the majority of them were not of course more than £20. On the whole, this fact showed that there was a certain amount of risk in live stock. Mr. Bignold regretted that Mr. Brown had to complain that insurers in his district had not received their circulars; that was the fault of the agents to whom they had been sent to distribute, and then expressed his readiness to answer any questions.

Mr. R. ENGLAND: The offices do not require three-fourths of the value of the live stock to be insured?

Mr. BIGNOLD: Unless you insure it in one sum with your agricultural produce.

Mr. ENGLAND: You are at liberty to insure in any amount you please on implements and live stock?

Mr. BIGNOLD: Yes; any amount.

Mr. ENGLAND: And you only ask for three-fourths of the value of farm produce, hay and corn?

Mr. BIGNOLD: Certainly.

Mr. ENGLAND: From some conversation I have heard I was sure there was some misapprehension on this subject; and I am glad that Mr. Bignold has been able to explain the matter to us, for I think he has withdrawn a great part of the objection which farmers had to it.

Mr. R. SMITH inquired whether "agricultural produce," including growing crops, was meant to embrace roots.

Mr. BIGNOLD said most undeniably they were produce. The Norwich and Sun Offices were far more liberal than any of the others in their payments for losses on growing crops. The Norwich Union certainly would not take root crops and young wheat into consideration at the insurance on three-fourths value, and it was optional for a farmer to strike out the words so that growing crops should not be covered. He considered it was rather liberal on the part of the offices than otherwise.

Mr. SMITH said while the words remained the insurance must naturally be held in a court of justice to include roots; therefore they would come in as a proportion of the value of the produce of the farm. Unless "roots" are entirely struck out any office might say to the farmer that the insurance included the value of his roots as well as that of his corn.

Mr. BIGNOLD: Strike out the words.

Mr. BROWN: That won't bind the other offices.

Mr. BIGNOLD: But it would bind ours. There are very few offices which pay for growing crops at all.

Mr. SMITH: Is artificial food for cattle intended to be included?

Mr. BIGNOLD: I think decidedly that that is agricultural produce, and I do not see why you should not insure it up to a fair amount of value.

Mr. SMITH: I do not think you can find a single instance where danger arises upon a farm from artificial food for cattle as in the case of hay.

Mr. BIGNOLD: If you had your barns and warehouses burnt down you would find—

Mr. SMITH (interposing): But we do not keep artificial food in those places. It seems that for the sake of our corn and hay those things are to be added in. We might have £200 worth of cake, which would be no risk.

Mr. BIGNOLD: It would, if there was a fire.

Mr. SMITH: That £200 worth of cake would be added to the value, and we would have to pay a premium upon it just to make us safe with our growing crops which, perhaps, may be hay and turnips.

Mr. BIGNOLD: You have the opportunity of not being insured for it. If you wish to be covered for it it is only right you should be insured up to a fair proportionate value.

Mr. SMITH: It is very certain that as soon as harvest is over and we begin to thrash our corn we reduce the risk to the office very materially, and in the course of three months the risk is not more than one fourth of the whole.

Mr. BIGNOLD: Would you mind stating to the meeting the case you put to me outside.

Mr. SMITH: What was that?

Mr. BIGNOLD: You said supposing that you had value to the amount of £2,000 at harvest time and you did not choose to insure for three-fourths of that value; and that you insured for £1,000, and in the course of two months' time you had only £1,000 value instead of £2,000. Would you receive on the full amount? I say "Yes," because at the time the fire broke out you were fully insured—even more than three-fourths; but until the fire occurred you ran the risk to the same extent yourself. But that was optional. Mr. Bignold then remarked that farmers thought they were being treated differently to any other class. There was not an insurance on the books of any insurance office extending ever more than one place, without the average clause being inserted—what he might be allowed to call a pure and simple average clause. If the amount insured was equal to the full value the clause did not apply, but if a man insured for £19,000 what was worth £20,000 he was his own insurer for the remaining 20th as he had insured for only 19-20ths. The insurance offices gave farmers the boon of insuring up to three-fourths of the value, while everyone else must be insured up to the full value;

therefore, the farmers had an advantage of 25 per cent. granted them.

Mr. HOWARD TAYLOR said it seemed to him that the offices had been endeavouring in this circular to carry out a reform which was absolutely pecuniarily necessary to them; and there could be no doubt in the mind of any one who had at all acquainted himself with the very elements of fire insurance, that the farmers had up to the present time had exceptional advantages in insurance. But if that were so, he could not see why the offices should cause all those exceptional advantages to be transformed in future into exceptional disadvantages. It seemed to him that the offices had endeavoured to carry out an equal reform, but had not done so in a satisfactory manner. The main distinction between the insurance of house property and agricultural produce was that in the one case there was a constant value, and in the other a variable value. If a person did not insure his house up to the full value, he knew that for the difference between the insurance and the value he stood at his own risk; but when a person insured his occupation, it was for a different value every day in the year; and therefore it was impossible for him to ascertain directly what would be the value of the agricultural produce in any particular day in twelve months. In looking at the alteration suggested by the offices, it would be seen that, in order for a person to bring himself within the benefits of complete and entire insurance, he must be insured up to the value of three-fourths of the agricultural produce at a time when a fire took place. It was not three-fourths of the average value of a farm during the year, but it was three-fourths of the value when a fire occurred. Therefore, in order that the insurer should secure for himself the advantages of that insurance, he must keep his premium up to the maximum value of his property at any time in the year. There was another point in which the offices appeared to have subjected the insurers to exceptional disadvantages. They said to the farmer, "You must insure in three-fourths of your existing value"—that was what they intended—"but," they also said, "if you are not insured up to three-fourths of the value at the time a fire breaks out, the sum you shall receive shall be in proportion to the total value of the insured property." There, again, the farmers would be subjected to a disadvantage in the calculation of the amount to be paid as compensation. It therefore seemed to him that the clause in the circular had been framed without a due consideration of the variable value attending agricultural produce. If the committee proposed waited upon the directors of the Norwich Union, which course would no doubt have a commanding influence upon other offices, and pointed out this matter clearly, it would be almost impossible for them to maintain the position they had assumed. Although they were familiar with specific property, they were not so well acquainted with that which was variable.

Mr. BIGNOLD said there were three farmers on the board of directors of the Norwich Union, so the thing had not been done without the advice of practical men. He should be glad if Mr. Howard Taylor would explain how farmers had been treated in an exceptional manner. If a merchant insured bales of cotton in warehouses at Liverpool, he had to do so under the average clause; and cotton, surely, had a different value at different times in the year, just the same as corn. Many different species of merchandise varied more than corn. If a farmer insured at Michaelmas—and that was a general thing—he was almost certain to be insured for three-fourths during the whole year; and the Norwich Union Office, if it found that a farmer had endeavoured to the best of his ability to be covered up to three-fourths the value, would not take any advantage of him if he happened to be a trifle under.

Mr. J. EVERITT said that he was a shareholder in the Norwich Union Fire Office; but, at the same time, he had a large capital invested in the soil; and therefore it would be a suicidal act if he were to offer any observations which were calculated to depreciate or to do harm to the agricultural interest of the country. Taking a common sense, commercial view of this matter, it was absurd to suppose that a large office like the Norwich Union, or any other office in the kingdom, could go on *ad infinitum*, incurring considerable loss by one description of insurance. There was a considerable risk on all property; but he contended that there was greater risk upon farming produce, it being exposed to the dangers of lightning and incendiarism. There was a time when fearful losses were the result

of the latter cause. Then, again, they were exposed to the carelessness of their servants; the consumption of tobacco had increased tenfold, and almost every farm boy had now a pipe in his mouth. Further, he believed that he was stating a fact when he said that one of the greatest losses from fires arose from children innocently playing with lucifer matches. Having looked at the question carefully, as a practical man, he was of opinion that the insurance office was asking nothing unreasonable in fixing the rate of insurance for the whole produce of the farm at 5s. per cent. Perhaps three-fourths was rather above the value; but, as the directors were men of intelligence and moderation, he had no doubt a course would be suggested which would meet the views of the directors and of the agricultural body in general.

Mr. F. CLOWES wished to ask Captain Bignold whether, as the representative of the Norwich Union Office, he was able to give them any pledge as to what would be the future course with regard to the circular? He apprehended that the circular was not the dictum of the Norwich Union, but of many offices?

Mr. BIGNOLD: Precisely.

Mr. CLOWES: Therefore nothing could be come to until another meeting of that association in London, where the offices met and concocted and contrived the means of protecting the community by fixing the rates of insurances. When, a few years ago, he was the director of a fire office, he looked particularly into this matter, and the determination he came to was that insurances upon growing crops and the produce of the land of an inflammable nature would pay at 10s. per cent.; but then if the stacks were separated about the land they might be taken at another rate. Then, looking at the circular, he saw that the office had brought into three distinct classes not only the produce of the farm, but what was upon the farm. They might keep it so. In taking the produce of a farm at what was grown and harvested, there was a danger that might be taken at one rate, and the implements and live stock at other rates. For the live stock they might go down as low as 1s. 6d., and the implements they might take at something like 3s. 6d., and the other ranging at 10s., separated and divided where the stacks were set apart. Such was his proposition at the time. It was communicated to the association in London, but they ignored it; still he thought some such arrangement was desirable. Anyhow, let them get rid of the average clause, and have a rate which should be satisfactory to both parties. This great difficulty arose here, that the policy was not a floating policy; it was a fixed policy upon the farm.

Mr. BIGNOLD: It floats over the whole.

Mr. CLOWES: But still there were a variety of risks, and if they were separated in this way it was like the floating policies which were taken at a lower rate. For instance, in the insurance of cotton at Liverpool they took a floating policy over the whole.

Mr. BIGNOLD: At a shilling a month.

Mr. CLOWES: And some for a good deal less.

Mr. BIGNOLD: No, none; many higher.

Mr. CLOWES thought that if they were to devise some means of separating the produce the office might with advantage take a higher rate upon what was grown and harvested. He did not mean roots, because roots would take no mischief but what would burn. They might then cut the other rates down, and he was sure the office would be glad to insure the live stock at 1s. 6d. For his own part he would much rather do so than take the other risk at 10s. He hoped the committee would make some such suggestion as this to the office.

Mr. BIGNOLD agreed to a certain extent with what Mr. Clowes had said. It was impossible to get the other offices in London to agree to what he had stated. One of the things tried for was that if there was not a certain division between every stack a higher rate should be charged; but as two other large offices would not agree to it the thing could not be carried.

The CHAIRMAN: Would the Norwich Union Fire Office take the insurance on agricultural produce and implements without the live stock on the farm?

Mr. BIGNOLD: Certainly; but if you put the implements in the same item with the agricultural produce the implements would have to be subjected to three-fourths of the value, the same as the produce. If you look at the circular you will see it is so: "If the sum insured on agricultural produce, either

separately or in one amount with other property." You notice that the words "in one amount" show that if you insure £500 on dead farming stock that includes agricultural produce and implements.

The CHAIRMAN: I do not think Captain Bignold has answered the very forcible objection raised by Mr. Howard Taylor. Mr. Taylor did not say a word about the price of our agricultural produce, nor did he say a word about the quantity we grow. Of course we must have new policies every year, that is certain. Take a light land farmer this year; his crop of wheat is perhaps not worth £5. I hope that a kind Providence will bless him so next year that it will be worth £10. Then, Mr. Howard Taylor really put the matter in its true light. A farmer, directly after harvest, has, of course, an immense amount of inflammable stuff upon his farm, but just before the hay comes into the stackyard what has he? Hardly anything besides the straw, and perhaps a bit of old hay; nothing else in the shape of "agricultural produce." Therefore it is very difficult in properly arriving at what they are good enough to call "three-fourths" of the value. I think that the observations made by Mr. Everitt about smoking ought to receive attention in this Chamber, and that the subject is worthy of more consideration than has been given to it. The careless use of lucifer matches is no doubt the whole cause of all these disturbances between the insurance offices and the farmers. One insurance office has been good enough to send me a circular in which it says "children are permitted to play with lucifer matches in rickyards." Why, good gracious me! who permits? You know that accidents cannot be helped, but the careless use of lucifer matches are a source of more destructive fires than all other causes put together. I am quite sure that Captain Bignold will say that it is so in Norfolk; and I do think that one point which ought to be considered is whether there should not be some restriction put upon the sale of those lucifer matches which ignite upon anything. There is a safer kind of match, which ignites only on the box, and one never hears of a child taking a whole box of lucifer matches to play with—and if they were used I believe the risk would be materially diminished. I will just make one observation further—I particularly object to the way in which this circular has been put before us, and I object still further to the time. This meeting was held in London on the 10th of May. Our policies are all renewable on the 29th September. The Norwich Union Office has certainly dated their letter the 15th August, but some of us have not yet received a copy, and others only received one in the course of this week.

A MEMBER: I received mine this week.

Another MEMBER: I have not received mine yet.

The CHAIRMAN: Some of the offices in London, according to a letter which I have, say: "We are about to inform our agricultural friends of these new regulations." I may tell you this: I was a director of an Insurance Company in London; but things were managed in such a very nice manner that I knew nothing about this until I received this notice from the Norwich Union Fire Office of these new regulations. I need not say that as soon as I saw that, I resigned my seat on the Board, because I did not wish to be made a puppet of, nor did I wish to run the risk of being had up before the Lord Mayor, and committed to prison, if some discontented shareholder finds that the Society does not flourish quite so well as he expected. I should like to inquire of Captain Bignold whether it is the insurer who has to ask this long list of questions—eleven in all, but they are compound questions which would lead to about 30, more or less—the poor unfortunate agent?

Mr. BIGNOLD: The poor unfortunate agent.

The CHAIRMAN: I am very glad indeed that the farmers have not to ask them. Some of those questions are ridiculous. I have before me some put by a London Office—the Norwich Union does not go quite that length—and one is, "Is the insurer popular with his labourers?"

Mr. BIGNOLD: That is a very material point.

The CHAIRMAN: You will next have this, "If a manufacturer, what are his politics, and is he popular with the mob?" Captain Bignold has told us that fire-insurance does not pay.

Mr. BIGNOLD: Not generally, we don't say that.

The CHAIRMAN: I make this challenge to Captain Bignold—and I have pretty good authority for it—Fire insurance on farm produce in Norfolk does pay. I do not say that it does pay all over the kingdom; but I say that it does pay in Norfolk, and I challenge the directors to prove that it does not.

Why should we be made to pay for the shortcomings of other counties? There was a time when there was a vast amount of incendiarism in Norfolk. Happily that time has gone by; but incendiarism still exists to a certain extent in other portions of the kingdom. I do not say a word about that, because the poor farmers cannot help it more than we can. But in most other counties the whole of the agricultural produce is grouped in most beautiful fantastic ricks all round the premises. The "Royal Farmers" Office say, "We have just had to pay a loss in which there were 27 stacks destroyed." Now I will ask you whether such a thing as that could by any possibility happen in the largest farm in Norfolk? Of course it could not. Therefore I say that we in Norfolk have no right to bear this infliction, but that everybody should be insured according to the proportion which he takes. Let us have varying rates. For my part, I have arrived at the conclusion that nothing shall ever insure my live stock. Mr. Clowes says he would insure it for 1s. 6d. per cent. I would not insure it at 3d. per cent. What risk is there? Perhaps some stupid pig may run his nose under a rick and get smothered; or some cocks and hens, but they are not taken into account, I believe—

Mr. BIGNOLD: There would be some cackling if they were not paid for.

Mr. EVERITT: What about horses in the case of fire in a stable?

The CHAIRMAN: Well, occasionally you may have a horse destroyed. Let any practical farmer go round his premises at Michaelmas and value his live stock. I am only a small farmer, occupying 400 acres of land. I shall be sorry indeed for anyone in the month of October to come and pay me £2,500 for my stock. Do you think that there is any risk whatever upon sheep? They may occasionally be killed by lightning; and, as to bullocks, I wish we had an insurance against pleuro.

Mr. BIGNOLD: We nearly had an insurance against pleuro the other day.

The CHAIRMAN: I think the insurance companies have treated the farmers particularly bad as regards time. They have not given us time to establish a Mutual Insurance Company, which, perhaps, would be a bad thing for us; but at the same time I would rather be a shareholder in such a company than have this injustice inflicted on the agricultural interest. And I would say this: Weren't we laughed at and scoffed at in the year 1843, when we established the Hail Storm Insurance Company, and is that such an extremely bad speculation? I believe not; and I also firmly believe that if a body of farmers would undertake mutually to insure each other, they would take such legitimate precautions that a premium on fire insurances at 5s. would be a very profitable investment.

Mr. BIGNOLD remarked that he thought they could hardly complain of the office not having given them sufficient time to establish an association against them, but, nevertheless, he assured them that the desire of the directors was that they should have sufficient notice. With regard to the establishment of a Mutual Insurance Office, if they took that course, he did not think they would find the profits to be much; but, on the other hand, he believed it would share the fate of one established some time ago. Pray let them try; but, at the same time, the Norwich Union would be sorry to lose anyone who insured with them. The question as to whether a man was popular with his labourers he regarded as an important one, because no less than 25 per cent. of the losses sustained by fire arose from incendiarism, and if a man had the reputation of being harsh to his labourers and of ill-treating them, that might be an important element as tending to incendiary fires. With regard to what the chairman had said as to his not having answered Mr. Howard Taylor, the chief point in that gentleman's observations was that the farmers were being treated in an exceptional manner. He (Mr. Bignold) was at a loss to see how this was, because the office asked the farmer to insure up to three-fourths, or to have an average clause, whereas in every other case a man had to insure up to the full amount, so that the farmer had the advantage by 25 per cent.

A MEMBER asked if tramps were not the cause of most of the incendiary fires?

Mr. BIGNOLD said that most of the losses incurred through tramps came under the head of accidental fires.

The CHAIRMAN said that if they looked at the calendar of

any Norfolk assizes, they would see that almost all incendiary fires were caused either by tramps, by some one for a lark, or by some pleasant individual who wanted to get transported. As far as regarded the labourers themselves, whether a man was a hard or very generous master? was a question that ought not to be put by an insurance office.

Mr. BIGNOLD: We don't put such a question. I am only defending others who do.

In answer to Mr. BROWN, who regretted the observation of Mr. Bignold as to its not being likely the office would give them sufficient notice to enable them to form a Mutual Insurance Office,

Mr. BIGNOLD remarked that the directors never dreamed of such a thing being possible, and that they had given five weeks' notice, the non-delivery of the circulars being entirely the fault of the agents.

A MEMBER remarked that Mr. Bignold was mistaken if he supposed farmers would be put down now as they were twenty years ago.

The resolution was then adopted unanimously; and on the motion of Mr. CLOWES, seconded by Mr. J. EVERITT, the following gentlemen were appointed the committee: The President, the Vice-President, Messrs. T. Brown, B. Bond, and W. Flatt.

The CHAIRMAN said that he was sure the Chamber were much obliged to Mr. Bignold for attending there, and for the courteous explanations he had given.

On the motion of Mr. EVERITT, seconded by the Rev. J. L. BRERETON, a vote of thanks was accorded to Mr. Bignold, who, in acknowledgment, said that the Norwich Union Office insured eleven millions of farming property in the kingdom, and they would very much regret not to remain at the top of the tree.

The meeting then terminated.

An adjourned meeting of the Norfolk Chamber of Agriculture was held, Mr. C. S. Read, M.P., in the chair, to further consider the question of the terms upon which insurances of agricultural produce are required to be effected in future by the principal insurance companies.

A committee appointed to confer upon the subject with the directors of the Norwich Union Fire Insurance office reported: "Your committee are informed by the directors that the conditions requiring agricultural produce to be insured up to three-fourths of its full value apply only to all manures, food for cattle, &c., produced or used upon a farm; and that it is competent for a farmer to insure his corn and hay crops to the exclusion of roots, food, manures, and other items. In the event of a fire only the particular produce insured would be taken into account in estimating or valuing the loss. The directors declined to amend or withdraw the circular issued by them. They also informed the committee that a reasonable amount, having due regard to the total value, can be insured on implements and also on live stock, such reasonable amount being in their opinion not less than one-third of the value thereof; and that if such reasonable amount were insured, any amount, not exceeding the amount insured, would be paid in full without any limitation or restriction, beyond the usual one that not more than £40 will be paid for any article or animal unless specially mentioned. Your committee pointed out that the foregoing terms were a radical change in the system of farm insurance, that farmers were entitled to due notice thereof, and that as they had not had such due notice your committee suggested a renewal of Michaelmas policies on the old system for a reasonable time to enable a committee of farmers to meet the directors and endeavour to arrange terms which would be satisfactory to both parties. The directors, while admitting the insufficiency of notice declined to grant any extension of time, but advised that insurances should be effected on their terms, adding that there would then be a whole year for farmers to consider the matter."

Mr. GERARD DAY proposed that a fresh insurance company should be formed.

Mr. C. E. BIGNOLD, assistant secretary of the Norwich Union Office, stated that that office had insurances of agricultural produce to the amount of £2,000,000 in Norfolk. For several years the profit realised on this amount of business had been only £900 per annum, and for the last five years there had been a positive loss.

The CHAIRMAN said the directors of the Norwich Union appeared to wish Norfolk farmers to pay for the shortcomings of the insurers of other districts. Farmers ought to have a heavy policy from July to December, and a light one from December to July. They could not insure under an average clause without a great deal of trouble and an immense amount of injustice, and, therefore, he for one would not so insure.

After a good deal of conversation the proposition for the formation of a fresh insurance company was withdrawn, but the Chamber adopted a resolution to the effect that it regretted that the directors of the Norwich Union had thought fit to adhere to the average clause system which the Chamber conceived to be unfair to the agriculturists of Norfolk.

The proceedings then terminated.

ECHOES FROM THE AUTUMN MEETINGS.

WARWICKSHIRE.

At Leamington, Mr. T. HORLEY said: We must feel that we are exceedingly fortunate in having such a nobleman as Lord Leigh as lord-lieutenant of the county. He is always foremost in every charitable movement which is started, and he has always shown himself ready and willing to alleviate the sufferings and better the condition of the working classes. As a landlord he is a noble example. Since the last meeting of the society, his lordship has given his tenants the privilege of killing ground game on his estate. I am quite certain that neither his lordship nor his friends will ever find legitimate sport interfered with by reason of the concession he has made. But Lord Leigh has done yet more for his tenants; he has promised compensation for unexhausted improvements carried out on his estate; and, if that act should lead to the establishment of a good practical system of Tenant-Right in the county, it will be a great thing for Warwickshire. I must also speak of the liberality of another landed proprietor of the county—Mr. Mark Philips—who has intimated his intention to return to his tenants the whole of the rent of land upon which they had grown wheat, which would amount to about 25 per cent. of the aggregate payments. That is a noble and generous act, and one showing that Mr. Philips takes a deep interest in the welfare of his tenantry. It has been mentioned in connection with the prize offered by the High Sheriff of Oxfordshire for the best cultivated farm at the last meeting of the Royal Society, that in Lincolnshire they have a Tenant-Right, which was attended with the best effects. It has tended to create enterprise among farmers, and if the same thing were adopted throughout the country, then the whole country would participate in the good which has unmistakably resulted in Lincolnshire. It will be a red-letter day for Warwickshire when we have a practical Tenant-Right in vogue. Referring to the condition of the agricultural labourers, I must say I believe no system of education will do good unless the labouring classes have good dwellings to live in. Nothing will do more good to the farmers or their servants than providing on the farms suitable dwellings for the latter class, with good gardens, and all near to their work. I also hold that the landlords should not carry on the practice of having large preserves of game. It would be productive of much good if they would remove a large quantity of the hedgerow timber from their fields. If a few of these things were brought about, we should no longer hear of the farms in Lincolnshire and Northumberland being in a better state than those in Warwickshire and other counties, but there would be a better state of things throughout the whole country.

Mr. C. N. NEWDEGATE, M.P., said: I was glad that Mr. Horley congratulated the meeting upon the decision of the Lord-Lieutenant that he would upon his estate allow compensation for unexhausted improvements. I am a half-bred Lincolnshire man, and for more than 15 years, in all my agreements with my tenants, there has been a clause that binds my estate to give them compensation. That system of agreement has been the foundation of the success of agriculture in Lincolnshire which now surprises even Scotland itself. I will not touch on all the observations that have been made with respect to agriculture; but when Mr. Horley says "Fell more of the hedgerow timber," I must call to his attention the admitted fact that in the counties where there is the least hedgerow timber they have suffered most from the drought, and that it is an ascertained fact that in Egypt there were no showers about Cairo till they planted rows of poplars. As we have experienced a period of unexampled drought, I doubt the policy of felling the hedgerow timber round grass land. I

have in this drought watched the state of things in the park at Arbury, and I have found that where there have been trees and shelter there has been more natural pasture this season than I have seen anywhere else. I think, therefore, that what Mr. Horley recommended should be qualified to the felling of hedgerow timber where it stands between arable fields; and this even may require further qualification, for I am convinced a great mistake has been made in Leicestershire, where the hedgerow timber in the fences which separate pasture land has been cut down. I think the recommendation of Mr. Horley needs the qualification I have mentioned. I am an old member for the county, but I am a young farmer; yet this year I have tried an experiment I would like to mention. I was the first to propose and give a prize for draining, as a member of the Rugby Agricultural Society, and I do not regret it; but, happening to have a level meadow this year with a spring in it, I stopped up my drain, and I think I had more pasture there than all my neighbours. I admit that that is an experiment to be tried with caution, but if it be done wisely where there are springs you will be able to withstand the drought of such a season as this.

Mr. C. M. CALDECOTT said: If I had the fortune of our noble Lord-Lieutenant, and possessed the quantity of land which he possesses, I think I should also be inclined to give my tenants the privilege of shooting hares and rabbits on the farms they occupy. I have a small farm at home, with about 300 acres, occupied by one tenant, and on that farm I have shot eleven hares in three years. I have been out three days this year, and saw one hare on the farm. I do not take particular credit to myself for not being a strong preserver of hares against my tenants. As to Mr. Mark Philips, a better man never lived; and if I, like him, had £30,000 a year and saw my tenants in difficulties, should I not help them? Mr. Horley has lifted up these two landowners as if there were no others like them in the county. I object to this, and I will not have it. I quite agree with him that a landlord ought to think of his tenants, and what is best for them in the way of helping himself by helping them, and by giving good houses to the labourers, and all that; but it is not to be a one-sided arrangement, it must be worked all through; everybody must have the same feeling—the inferior towards the superior, and the equal towards the equal. There must not be one man set on high, and people say "There's none like him!"

Mr. SMITH, of Bibury, Oxon, said hedgerow timber was a source of great injury to tenants. At a time like the present, when such great demands were made on the land, the soil should be made the most of. One of the greatest drawbacks to the tenant was the over-preservation of ground-game. In whatever district he lived, if the farmer was much over-run by ground-game, he could not make the best of his land. He hoped to see the day when, like Lord Leigh, landlords would give up ground-game to their tenants. Landlords would then have as good sport as at present, and that without the expense of so many gamekeepers. Every tenant-farmer would be a keeper of his landlord. If, on the contrary, they had no share of the sport, when they saw men lurking about their fields they might be inclined to look another way, saying, "They are not going to rob me, but to take the robbers off my land." While, on the other hand, if they had a share in the sport, they might seek assistance and arrest the suspected characters. Rabbits were the worst of vermin, and their over-preservation was unnatural. He had had an interview with Sir Michael Beach, who asked him, "What do you require us to do?" He replied, "All we wish you to do is to set a good example. We wish

you to legislate as you please; but we are now come to ask you to allow your tenants to destroy rabbits and course hares." He had given that permission for the last two years. It was said that every pheasant cost a guinea, while its market value was only 3s. 6d.

Lord WARWICK, the President, said: I hope you will excuse me for saying one or two words with respect to the discussions which have been held during the speeches this evening. I do so in good part, and with the best feeling. It is my earnest wish to hear from all practical men their practical opinions on farming, on stock, and on what may advance the interests of agriculture. I think, as President of this Association, it becomes me to say that we have a little too much wandered into points which are likely to create differences of opinion and discussions which are hardly fitting for a meeting like the present (Hear, hear, from Lord Leigh). If there were no other places where they could be discussed, I should say let us discuss them with all that good feeling evinced by my friend Mr. Caldecott. But you must remember that there is a Chamber of Agriculture, to which these matters more especially belong. I hope you will nearly all agree with me that if we introduce these matters, which are somewhat personal, and which almost require a reply, or if we get into the discussion of such questions, there may be certain disagreements which we should wish to avoid, and which no one who looked forward for a moment would wish to encourage.

Lord LEIGH: I may be permitted to say a few words in reference to the matters alluded to by the noble President. I must say that I most entirely and completely agree with what has fallen from my noble friend. I regret that my name has been more than once mentioned by my friend Mr. Horley and others in reference to the game question. I must say that I perfectly agree with my noble friend the Earl of Warwick, that it is far better to avoid the introduction of such questions as the excessive preservation of ground game, referring them to the Chamber of Agriculture, which is the medium for their consideration. My private feelings led me to see that it would be better for me to give up ground game to my tenants, and I did so for that reason. But I never expected it would pass beyond my own tenantry. It got into the newspapers, and it has been to me a source of annoyance, as it appeared as if I wished to dictate to my neighbours. I am satisfied that the good feeling of every landlord in Warwickshire would, if he could, induce him not to have an excess of game. I am equally convinced that if my noble friend the president thought game was doing any injury to his tenants, he would use his discretion as to the manner in which it should be remedied. It is a question between landlord and tenant, and one which should not be introduced at these assemblies. If the tenant has anything of which to complain, let him state his grievances to his landlord—but do not let him come here and quote Mr. A. or Mr. B. as examples of giving up their ground game. It has been to me a source of great annoyance to hear my name frequently mentioned in connection with this subject. I hope tenants will speak out to their landlords, and not introduce such discussions at festive gatherings like the present.

NORFOLK.

At Wayland, Mr. MAYHEW said: Besides the difficulties of feeding his stock, the farmer had had other difficulties to contend with, and he was afraid there were yet more in store for him. During the last few years they had experienced very adverse seasons. There was a time when the light land farmer by well and judiciously applying his money could meet with some encouragement, but now, however much skill and energy he brought to bear in the farming of light soils the result was not that which he might reasonably expect. Possibly these adverse circumstances in the long run might be attended with benefit. It might, perhaps, put them on a sounder basis. In the first place no doubt it had a strong tendency to do away, in the successful cropping of the soil, with ground game, or, more properly speaking, vermin. He was sure they would all agree with him in thanking the noble president for having taken the initiative in destroying these pests to the farmer. It was true that in the course of time Parliament might enforce the suppression of them, but their noble president had anticipated this, and had acted wisely in taking the initiative. He thought they would also concur with him that the rents of the light lands were not exactly genuine. They had been put up to an extreme degree

by what he might term outside men, men who were not brought up in practical farming, and who imagined that if they could get hold of a light land farm it would be nice to gallop a horse across the farm, so that they had been induced to come and give more for that land than it was absolutely worth. This put a practical man in a very difficult position, especially when the seasons favoured that description of land, but he believed the last few seasons had shown that the practical men who were willing to give a fair rent, and to give no more, were the men in whom alone they could trust.

Lord WALSHINGHAM said: With respect to ground game, that was always a difficult and moot question, and he had never heard it discussed without its being qualified by the statement that it was very wrong, and people ought not to be allowed to have too much ground game. But who was to decide between too much and too little? A man when he took his farm inquired and ascertained from his neighbours what amount of ground game the landlord was in the habit of keeping, and if he was dissatisfied he need not take up the lease, and had better go to where there was no game. It was a question which rested entirely with the landlord and the tenant, and one with which the law could not deal. As to theoretical men paying more rent than practical men, the landlord tried to get as practical tenants as possible, and if men turned out not to be practical, it was no fault of the landlord. There might be non-practical men get hold of farms; but, as a rule, he believed the farmers of Norfolk were practical men, and knew the value of land just as much as the landlord, and would never give more than it was worth, unless, indeed, he happened to be a man not of strong mind and unable to judge for himself. If they had a horse to sell, they tried to make as much of him as they could; and if they asked a price they could not obtain, it was proof positive that the value put upon the horse was more than it was worth. It was a matter of agreement between landlord and tenant between buyer and seller. Referring again to the question of ground game, the noble lord said that the tenant would have a right to complain of his landlord if he kept up more game than he had been in the habit of keeping up before he let the farm; but if the conditions and circumstances under which he took it remained the same, he could not see on what ground any complaint could be made.

LINCOLNSHIRE.

At Halton Holgate, Mr. J. H. M. MUNDFY said he was nearly the oldest on the roll of the magistrates of this county. He hoped they might so adjust the justice of the country, which had been placed in the hands of the magistrates of England, that they might not be reduced to that position which prevailed in most other countries, where justice was conducted by a paid magistracy. They were, perhaps, not always quite so conversant with the intricacies of the law as paid magistrates might be, who would be selected from the legal profession; but they had their magistrates' clerks—men of uprightness and integrity—to whom they could appeal with every confidence in any legal difficulty, an advantage which assisted them to do what was just and right.

Mr. HEANLEY, in responding for "Success to Farming and Grazing," said it took a clever man to farm at a profit, much more to graze at a profit. Under the present régime, with a European war, they were not to have wheat above 47s. per quarter, and cake was costing £13 per ton. As a practical man his advice was "farm as well as you can." He recommended the use of artificial manures, the necessity of having sheep on a farm; and with a European war, wheat instead of being at four guineas had come down below 50s., which they must try to make up for by growing a greater quantity. The next thing he could recommend was consideration for the labourer, and that he should be paid in proportion to his labour. Mr. Mundy had given them a little speech on the administration of justice in the county of Lincoln. He (Mr. Heanley) contended that they had spent too much in prison building in this county, and they had got so Radical as to think we ought to have a paid magistracy. They could not take two men opposed to each other before a justice and both win the case, and when the investigation was before a clergyman what was the result? Why, the man who lost declared he would never go to church any more, and became a dissenter. There was already plenty of dissent, and he hoped we should always have an Established Church in the realm, but he did not think in

this county of Lincoln the law could be administered without going to the clergy, because there were not enough country gentlemen for the task without them. If it was an undeniable fact, then, that the man who went before a clergyman and lost his case turned dissenter, it was time we had stipendiaries.

Mr. THOS. DRING (Claxby) followed. He thought that to ensure prosperity it needed the united efforts of the owner, occupier, and labourer. There was a great deal to do which it would require those three interested to carry out to the greatest advantage, but when he looked back he admitted there had been a very great deal of prosperity in the country. Not only farms, but whole parishes now grew more than double the quantity of every description of crop that they did 40 years ago; yet, whilst there had been that prosperity in agriculture, the farmers may not have made much by it. There were three things that had been very valuable to occupiers—namely, steam thrashing machines, reaping machines, and artificial manures. All these had been productive of great benefits. Artificial manures produced great turnip crops. If it had not been for the use of reaping machines they would almost have been beaten, but with them they got in the harvest just when they ought to do. A reaping machine, in fact, was one of the best things a farmer could have. There was another thing or two that had also tended to the prosperity of agriculture. Landowners or their representatives had not only been considerate for their tenants by building them warm sheds, &c., but had built good cottages for the labourers in the neighbourhood of their work, and copied the best specimens of dwelling that could be found; but he could not see the use of allowing a tree to grow on a space worth say 2s. a year, which at the end of a century produced 30s. He thought there might be a great advantage gained by improving fences and grubbing up trees. There were also a great many other things he could name that would be a benefit to agriculture. They should have sheep from the best flocks, and cattle from the best herds, and get the most they could out of the soil by endeavouring to grow more than their neighbours. Another thing was, that on these occasions of ram shows, he should be glad if the breeder could vouch that there were no sheep amongst them fed on anything but green food for the last six months. If kept on grass food they would be leaner, fewer sheep would fall lame when they got them at work, and there would be more work in them. Mr. Vessey's sheep were this year in better condition for work than he had ever seen them. They were fat enough, but not too fat, and those who had hired them would be better satisfied than if they were so very fat.

Mr. C. M. MUNDY differed *in toto* with Mr. Heanley when he said stipendiary magistrates would be preferable to the unpaid. He had found inconsistencies in the administration of justice committed not only by stipendiaries, but by the greatest judges of the land. It had been his duty to serve on the Grand Jury at Lincoln Assizes, and he had observed that it made a great difference in the sentence passed upon a prisoner in respect to the person who represented her Majesty as the Judge of Assize. He had seen judges sitting with their backs to one another in Lincoln Castle when one had given fifteen months' imprisonment and the other fifteen years' penal servitude for the same offence. It was impossible for magistrates to make as much difference as that. Then the stipendiary magistrate would entail great expense, which would fall on the ratepayers. Take for instance this district. Suppose they had a stipendiary magistrate for Louth, Horncastle, Spilsby, and Alford; he could not do more than those four places in a week, and a man could not be found to do them under a thousand a-year. [Mr. Heanley: He could do them for a deal less.] No doubt they could get a man to do it, but not the class of man that was necessary. A man of the calibre of a County Court Judge would not take the several divisions of Louth, Horncastle, Spilsby, and Alford, under a thousand a-year. And if that would be the cost of these four petty sessional divisions it would be an expensive matter for all the divisions in the country. The justices did not get many thanks for what they did, but in ninety-nine cases out of a hundred they did their duty to God, to their fellow creatures, and to their neighbours. When the country parishes should become so affluent as to have many thousands of pounds to throw away, then it would be soon enough to discuss the question of a paid magistracy. But then they would do away with one of the objects for which country

gentlemen live here. There would be only two or three more things which induce gentlemen to reside here that they could be deprived of, and if they abolished them one by one they would find them going away to a foreign country to spend their days in a finer climate than that of Lincolnshire. He had been born here, and he hoped to live and die here amongst his friends, and to live as a country gentleman should do. But it was a great mistake on the part of those who would try to do away with those inducements which made it worth while living amongst them. If everything was made unpleasant here for the country gentlemen they would find a more pleasant place to live in.

At Aylesby, Mr. JOHN TORR said he thought that success in agriculture had been attained by the indomitable perseverance, self-denial, and pluck of the tenantry of England. He did not pretend to be well up in the statistics of Lincolnshire, but to illustrate his argument he would say that no part of the country could boast of a greater increase in the value of land or in improvement of stock than that county. He had heard that Limber Magna had once let for half a crown an acre. It was not Lord Yarborough who raised its value from 2s. 6d. to 35s. an acre, but the cultivator of the soil. He made these remarks *ad captandam*, and said that if they were to toast the landlords, let them also toast the tenants.

Mr. C. NAINBY said, with regard to the improved position of this county and other counties in agriculture, he agreed that it was the industry and intelligence of the farmers that had brought it to such a position, still it could only be arrived at by a mutual confidence and understanding between landlord and tenant. The two landlords whose names had been brought forward co-operated with their tenants, and their motto was "Live and let live." They had one great difficulty to contend with in bringing the land to a high state of cultivation, and that was the miserable return it brought them. He kept working hard, but found he could get but little together. He tried to keep his farm up to a respectable standard, and perhaps he gave what land he had of his Lordship's a better chance than his own. But if they had many more years like the last it would make a great difference. He had been unable to get anything for himself. He lived loyally, but it had not been his fortune or misfortune to take a wife, and he had no incumbrances. Yet his returns were very small. He thought therefore that those gentlemen who had the start of him, and had families to look after, must be better managers than himself.

Mr. WILLIAM TORR said: I return you my earnest thanks, not as a ram breeder, but as a friend who is glad to see you at his board. It makes little difference to me whether you come here to take my sheep or not, but I have the satisfaction—which is something at my time of life—of saying I have shown you some very good ones, and that cannot be denied. If you are satisfied, I am the more pleased. I believe this, that farmers may be thought by some to have no more intelligence than the clod they cultivate, but they have in their heads as good sense as any class in her Majesty's dominions. They have integrity of purpose, and when called upon are ready. My friend has so thoroughly enunciated the position between landlord and tenant that it leaves me nothing to say. I should hardly have expected so good and sensible a speech from him. I have had a long experience as a farmer, and have found out that if a tenant pays his landlord, and spends as much as a green-grocer in a town, he would have little left for his family. But if a farmer is not rich, it is a long time before you can break him. He will grunt long and grunt well, but he has never grunted so well as during the last three years. You have lost your money from a succession of bad seasons, during which the higher a man farms and the more land he cultivates the greater is his loss. I have no idea of a man farming and saving, and doing no good to those who may come after him. I think every man ought to live fairly and farm well; and farm so that something may come after him. From 1860 to 1861 was a disastrous year in farming, but 1868, 1869, and 1870 were the worst, and those who farmed on the Wolds must have been last year's rent out of pocket, for their farms have made them nothing. I say it guardedly. Look at last year, when wheat and barley did not exceed three quarters to the acre. Where could you get your profit after paying labour? This year things look improving, and we shall not lose so much as we have done. Yet there is

nothing to be said against the landlords. But it is a bad time for landlords to raise rents. I say that guardedly. The tenant farmers of this country form a most respectable body of men, and if they have no knowledge of chemistry to help them, they have a deal of practical knowledge, but they might learn chemistry to boot. Let us move together and stick to each other, "and let the devil take the hindmost."

BUCKINGHAMSHIRE.

At Aylesbury, Mr. DISRAELI said: I hope, although this has been a very trying year to my constituents and the agricultural world generally, I may venture to state that the termination of your labours has not been altogether so unsatisfactory as it once promised or rather menaced to be. I believe we shall all agree that the harvest is a good harvest, and even in the light lands in which I live the wheat harvest is one of which I am not ashamed; barley is not so plenteous as it might be, but it is of excellent quality. It is of that brightness which our maltster loves ("hear, hear," and a laugh), and I think we shall be able to place it in the market with confidence in those with whom we deal. No doubt we have all suffered terribly in the expectations which we entertained respecting the root crops, but the late rains have been most beneficial, and although I cannot flatter myself so far as to suppose that the bulbs will expand at this late season of the year, still there is no doubt there will be a large quantity of green stuff which will be valuable food for the winter. And on this subject, looking to the unexpected drought which has prevailed this year, I would advert to one point, and one point only, to which I wish to call your anxious attention, and that is to make provision for a better supply of water for the cultivation of the soil. Where I have lived I have never built a cottage without making tanks, and I have introduced tanks among all the old cottages as far as I could manage to do so, and during the trying times you have lately experienced it is difficult to express what a mitigation of suffering of the population generally, especially on the table lands on the top of the Chiltern Hills, has been produced by these tanks. I think it is well for the agricultural world to consider whether that principle should not be pursued still further, and for my own part I cannot see why every farm, especially in those districts where there is a want of water, should not be furnished with a reservoir. I hardly know anything more striking than the great waste of surface water, and when I remember the intense suffering, not only of the peasantry, but of the cultivators of the soil, this year from the want of water, I think the time has come when we ought to consider whether greater use might not be made of that surface water which now is entirely wasted. It seems to me that if the habit were introduced of establishing reservoirs, very great advantage might be obtained, and under the difficult circumstances of years of drought like the present very great benefit might accrue.

Mr. J. K. FOWLER said that he had just received a telegram stating that the rinderpest had broken out among the Dutch cattle. The Government, to meet the question of preventing the importation of the cattle plague into this country, had made an Order in Council, prohibiting the importation of stock from France, but France wants now every animal she could get, and it was from Holland and the other countries in the rear, not in front of the armies engaged in warfare, that the prohibition should be applied to. If the representatives present would see that this frightful scourge was not allowed to be brought into this country again they would be thankful, and the British farmer would not, in the words of Mr. Disraeli, be appalled!

CHESHIRE.

At Sandbach, Lord DE TABLEY, in giving "Success to the Cheshire Agricultural Society," said a very grave question had arisen as to the future of this Society. He thought, in short he took it for granted, that the presence of all the gentlemen he now addressed proved that they felt an interest in the Cheshire Agricultural Association. The question was, should the county association go on or not? The result that day had been promising, and he thought if they held together and increased their subscriptions, and infused a little new blood into the affair, they might continue their existence as a county association. He had alluded to a sister society—the

Manchester and Liverpool. With that association they must come to an understanding, either for friendship or perhaps the contrary. He had great confidence in the result of the meeting to-day. He hoped the county association would hold together, and it was with great satisfaction that he proposed its continued success. He could not sit down without alluding to two or three facts which Mr. Tollemache would have more ably brought under their notice had he been present. It was only right that Cheshire farmers should know the exact position in which they stood, in order not to discourage them, but to stimulate their exertions. Mr. Tollemache had sent him a statement of the importation of American cheese, which showed that from 1865 to 1869 there had been an increase in the importation of nearly a hundred million hundredweights of cheese. In 1865 the total foreign cheese imported was 853,277 cwts., and last year it was 979,189 cwts. Still he (Lord de Tabley) thought there was no cause for discouragement, for with a large increase of population in this country, there were additional ways of disposing of farm produce; while as to quality, he did not think foreign cheese would ever beat a good Cheshire. Poor cheese might find a difficulty of sale, but good Cheshire would never be beaten. Improve the make of your cheese, then, he would say, and beat the foreigner out of the field.

Mr. R. DUTTON, said: Notwithstanding the wishes of Mr. Latham, Mr. Mainwaring, and other gentlemen who wanted them to come under the shadow of a much greater body, he could not help thinking that it would not be to their credit if one of the first agricultural counties in the kingdom were not able to maintain one large county association. He was quite certain that they could maintain one, but, in order to do it they must all be prepared to allow for each other's peculiarities; must try, should he say, to make wider their sympathies, explain their opinions, and be willing to bring in from distant parts that which made the Manchester and Liverpool the commanding society it was. If his young friends would take the advice of an old man who had watched the proceedings of that society from its commencement—for he had been a member from the first, and had not been absent from one dinner, and could only say he was forcibly impressed by the absence of many of the originators of the society, but that must not divert them from the greater object they should have in view—they would all try to do what they could to make the society more efficient, and to do that they would take lessons from a somewhat more powerful rival. They must put aside self-conceit and somewhat narrow notions—for he did not pretend to say that farmers were not a little selfish, with a tendency to monopolise—and try and throw open some of the classes, for if one thing would strike them more than another in connection with the Manchester and Liverpool, it was the good stock they brought from all parts of the kingdom. They brought first-class stock from the east, the west, the north, and the south; and hence he thought one of the first things for them to do was to make their show-yard more attractive. Taking into account the area, the subscription list of the Manchester and Liverpool was not larger than theirs, and therefore what he strongly urged upon them was to offer prizes, open to the competition of the whole of the kingdom. Let them have the best bull, whether it be Lady Pigots, Mr. Brierley's, or any other; let their Cheshire farmers see them, and see if they could not take a leaf out of the books of others. Not only so, but he would have a champion prize for cheese, open to the whole of the kingdom, so that they could get makers to send from Somerset and Scotland, and let them try to find out how the cheese was made there with a view to adopting the methods. There were other points too which required a little ventilation. He would have premiums as now limited to the sphere of the Society's operations, but in addition to all-comers' prizes, he would make a distinction between those who made a living by agriculture and those who did not. He did not hardly like to see Lord Crewe competing with dairy farmers, and though his lordship was fairly beaten, and it was his (Mr. Dutton's) honest opinion that a better pair of cows was in the possession of a dairy farmer than those belonging to the Right Hon. Lord Crewe, still he thought a large landowner like his lordship should not compete with tenant farmers. However, such was the case, and he (Mr. Dutton) thought that the parties competing for a specific purpose in this direction should be those making a living mainly by farming. Then he would press it upon their

judges that in giving the prizes for the best dairy cow or best pair of dairy cows, they should not give them to those with a tendency to lay on fat. It did not follow that the cow in the best condition was the best dairy cow. It might produce excellent stock, and yet not be a good milker. Therefore he would instruct their judges to give their attention to the qualities the cow possessed for the dairy, and if they liked to give prizes to the best cow irrespective of that, they could do so. The other day a cow, which was unquestionably the best animal, was shown against other dairy cows; but after considerable hesitation the judges, he being one, decided that they could not give the prize to that cow and made a note in their book that though they considered it the best in the yard, not being the best dairy cow, they did not consider it was entitled to the premium. There was one more question which everybody seemed inclined to shirk, but upon which he had spoken out more than once, this was in regard to the stallions and brood mares. He considered that, whatever their merits in other respects, if they were not perfectly sound they should not be allowed to take prizes. They would laugh at a judge who gave a prize to an unsound cow or an unsound bull. He knew that sometimes an unsound horse came into their possession, and that they got the jeers and taunts of every horse-dealer, who would ask, "What do you want for your screw?" And he must say that to give a premium to an entire horse which was unsound—he did not say this with any specific reference to what had been done—was to do a positive injury, and to hold out an encouragement to the horse to travel throughout the length and breadth of the country, propagating unsound horses. As to mares, he knew the common notion was that when a mare was unfit for sale the best thing to do with her was to make a breeder of her; but he held that no man, be he farmer or gentleman, would act wisely in putting an unsound brood mare to the horse when the probability was that in five cases out of seven she would propagate her own unsoundness; and therefore he thought there should be a footnote inserted under the premium for horses, requesting the judges to withhold premiums from entire brood horses which in their opinion were unsound. Proceeding to the farm premiums, he told them candidly that sometimes when money was expended upon a farm it was not taken into consideration whether that money would be wisely and profitably expended. He did not think it was good policy to expend 20s. in one direction with a prospect of getting no more than 18s. back. Many a man spent money on unnecessary improvements, for unless money expended gave a return of five per cent. a man was not a good farmer, although his land might be clean, free from thistles, and nothing wrong in the fences. There was a saying that a man who caused two blades of grass to grow where only one grew before was a benefactor to his race; but a man ought not to expend capital without a fair and reasonable prospect of getting interest for it. If they would give the matter serious thought they would see there was something in what he said. There was one remark made by the Hon. Wilbraham Egerton in reference to the great education question which he (the speaker) would not like to pass over. The future of the country depended upon the success of the education movement, and he felt confident that if, with all due respect to their sectarian influences, they would sink them and combine to extend education on the basis of the Bible, it would be one of the most successful measures ever brought forward. Let them drop sectarian bitterness, because if they did not, it would be a perpetual blanch, and instead of happiness and goodwill, the existing breach caused by their differences would be widened.

Mr. JAMES DAPLIN said in breeding many farmers lost time. They were all well aware that from three to four years horses were very unsaleable, owing to casting their teeth, being bad in their coats and out of condition. Therefore this was the time he would put a young sound mare to the horse. The fourth year it would have a colt, and at the back end of the year they would have a colt worth from £10 to £12, and the mare better in appearance by £10 or £15. This plan would not preclude the young mare with a colt at her foot doing the work of an old horse. He did not think any man should put an old mare to the horse. How many times did they hear the remark when a colt happened to be awkward-looking, and not what was expected, "I will never send my mare to that horse again;" and at the same time perhaps it was not the horse's fault. If they put old mares to the horse

they need not be astonished to see colts with lop-ears, bad necks, bad hocks, their tails turned, with ring-bones, side bones, and one foot over the other! But if they would take the line he had directed they would see the advantages of it.

Mr. PEDLEY said the few observations he had to make had reference to a department which he conceived to be the most important in the show of a Cheshire Agricultural Society—that in which the cheese and butter were shown. So far as his own knowledge extended over the past history of that society he did not think there had been any cheese to equal it, and it was only justice to the society to say it far exceeded the show of cheese in connection with the Manchester and Liverpool Agricultural Society. The richness of the quality and the pureness of the flavour was as near approaching perfection as it could be, especially in those cheese taking first and second prizes. He believed they had not only done justice to his friend Mr. Aston, but that he was richly entitled to the award. It had been suggested by his (the speaker's) colleague that the person who obtained the first prize should be under the obligation of giving a detailed account of the process of making the cheese, and that every person taking a first prize should give a written account of the production of it, for the benefit of members of the society and others, with a view to improving the quality of cheese generally; and he was quite sure that if the quality of cheese was equal to the majority of that shown, they would hear nothing about American cheese. There might be, perhaps, on the part of some a feeling of jealousy, and perhaps selfishness—a fear lest their monopoly should be interfered with, but it was his conviction that if, as his coadjutor had suggested, the quality of cheese was improved the consumption would be increased; and personally he could say that, if he could obtain cheese like that made by Mr. Aston, where he sold 50 tons now he could sell 100. His own experience, and no doubt theirs was too, that when he got a good cheese on the table it disappeared very much quicker than a poor one.

Mr. J. ASTON said when he entered his cheese for exhibition he was not at all sanguine about taking a prize, still less of securing the cup, but he assured them he was very pleased he had been successful. For a number of years he had taken great interest in cheese-making, and in his humble way had put forth efforts so improve the quality of cheese generally. That their staple commodity would compare favourably with that of many other counties and surpass that of most of them no one who had given attention to the subject would deny. Still they ought not to rest satisfied because more equally fine in flavour. For the last two or three years he had been labouring to secure rich fine flavour with a small amount of labour, and the prize awarded to him that day proved that he had to some extent succeeded. But he would not rest satisfied; he sought to attain to a higher standard of perfection. As a desire had been expressed on the part of some that a short account should be furnished of how the cheese was manufactured, he would just say that their present plan was a combination of two methods—the Cheshire and the Cheddar. In the process they made use of scalded whey, and entirely dispensed with skewering. They had also dispensed with rubbing and greasing during the time the cheese were ripening for market. No pressure was applied at the time of making, or until about two days afterwards. After the curd had been broken up the heat was increased to 160, and the whey drained off; they ground the curd and vatted it. The cheese was put into a moderately heated oven, where it remained till the following morning. It was then taken out and left in a warm part of the press-house for twenty-four hours without being turned: was kept in this room for three or four days, when it was rubbed over with warm grease, put into calico caps or binders, and continued so till sent to market. He acknowledged he had not furnished the details, but only a few particulars—but he would be happy to communicate all he knew as to how rich fine flavoured cheese were made with a small amount of labour. He would just say, before sitting down, that the results of his somewhat new mode, were highly satisfactory to himself.

Mr. G. W. LATHAM said that credit was due to Mr. Aston for what he had said about the making of cheese. He believed he spoke the sense of the meeting when he said if all was put down that he had said, it would put cheese making in a new light. They would observe from his account that instead of crushing out the curd, he applied heat, having found out that the flogging and beating system was not so good as gentle pressure. As to

the method of not violating the curd, but simply applying heat to the whey that had run from it, it was one which commended itself to their good sense, and he was not in the least surprised that Mr. Aston had got a prize. If Mr. Aston published a fuller account of the process in the papers, it would be of great benefit to them all. Mr. Dutton had referred to himself and others, who were wishful that that society should come under the shadow of a larger body. Now no man in the world was more ready to assist that society than he (Mr. Latham) was. The only question he had in his own mind was whether they would not do more good by being affiliated to that larger society than they were doing at the present time. But depend upon it the Cheshire Society would do good if they could get to know the processes and experiments of the successful competitors. Still he could not help feeling that the question would arise some day, not only to them but to the newly-born society in East Cheshire, the Wirral, Altrincham, and Manchester and Liverpool, whether these should not all combine to form one great north-western agricultural society, which might include Staffordshire, Cheshire, Lancashire, and part of Yorkshire.

STAFFORDSHIRE.

At Walsall, at the Judges' dinner, Mr. J. BRAWN introduced the customary discussion on agricultural topics by adverting to the present and future supply of animal food. About 30 years since Sir Robert Peel introduced his measure for the free importation of foreign cattle, the object of that measure being to reduce the price of butchers' meat. The price of butchers' meat had, however, gone on increasing at intervals until the present day, for the simple reason that while foreign stock had been introduced free, foreign diseases, of which previously they had had no knowledge, had been introduced also. The somewhat insignificant proportion of 4½ per cent. of cattle had been introduced from foreign countries, and 5 per cent. of home products had been lost by diseases which were imported at the same time. In consequence of this the consumers of food had not in the least possible degree benefited by the importation of foreign cattle. The remedy he suggested was that all imported cattle should be slaughtered at the port of debarkation. English agriculturists did not fear the importation of animal food, cooked and encased in tallow; but they did fear the live animal, which brought disease into their herds and loss to the farmer, and deprived the consumer of a considerable portion of his food.

Mr. R. H. MASEFIELD agreed with some of Mr. Brawn's remarks, but with regard to another part would be disposed to sit on the opposition benches. If the remarks had been made seven or eight years ago, then there would have been sufficient data to show that the imported diseases had caused more loss by the destruction of the flocks and herds than had been gained by the introduction of the food; but he was disposed to think that the introduction under Sir Robert Peel's Act had been a great advantage during the past five or six years, and with proper restrictions, which they, as producers of food, had a right to expect, might continue to be of advantage. He would leave this topic, however, to refer to one or two things which he regarded as desiderata to make the position of the agriculturist what it should be. The first was a good and equitable agreement between landlord and tenant, and another was that they should not let the increase of local taxation press more heavily on them than they were given to understand would be the case at the time it was imposed. The last subject he referred to because he had more than once been told that the tenant farmer had nothing to do with paying the rates. If, however, the tenant farmer, on making his calculations, found that he had to provide from 2½ to 5 per cent. annually for what might be termed the good-will of possession, and afterwards it crept up to 7 or 8 per cent., as it frequently did, it was as much a question for the tenant as for the landlord. With regard to the burdens brought by recent legislation, they had no right to grumble at the amount they were called upon to pay. The making of the county rates was, however, mainly in the hands of those who had an interest in the soil, and as the tenant farmers had never had an opportunity of curtailing the expenditure of those rates, they had a right to complain, or, at all events, to express their opinion about it. Two of the things they had no right to complain about were, first, the abolition of the turnpike gates, and, next,

the educational rate. Nevertheless, the turnpike system, he had always contended, threw the burden upon the right shoulders. And as to the education measure, which he did not exactly like, while he was not prepared to condemn it to the extent that some had done, he contended that education was as necessary for the agricultural labourer as for the man engaged in any of the trades of the country, particularly as the introduction of costly machinery into farming operations rendered the employment of men of intelligence and skill necessary. It was, therefore, apart from any question of philanthropy, to the interest of the farmer to see that his labourers were educated. As, however, the education of a child was received for good or for no purpose, just according to the example he found set him at home, he considered that in giving education to the children before they had provided the parents with comfortable homes in which to bring them up decently, they were beginning at the wrong end. If they provided this, then they might expect a good return for the two investments—the good education and the good home. As to the game question, there was no man who had a greater horror than himself of being game-eaten; while at the same time no man had a greater horror of the question being taken up and used as political capital, as it had been by certain persons during the last twelve or eighteen months. It would be in his power to single out certain gentlemen, and he need not go many counties distant to find them, who had spoken very liberally upon this question for political purposes, but whose actions would not bear reflecting upon, their tenants suffering more from game than the tenants of any other landlords in the county. If there was one thing more than another that agriculturists had to complain of it was the introduction of a third party as a tenant of game after the landlord or his agent had selected a tenant with sufficient capital to stock the farm and farm it properly. No tenant would object to his landlord shooting over the farm, but it was not to be expected that there could be any old associations brought to bear between the tenant and the holder of the shooting—perhaps a man who had made money as a merchant—who trampled over his turpits, and almost invariably left his gates open.

At the annual dinner the Chairman, Lord HATHERTON, said, in Staffordshire they ought to have 133,000 acres under cereal crops, and if by science they so improved the implements of husbandry as to raise but one peck additional per acre, that would add 32,520 bushels to the annual food products of the country, and at 5s. per bushel that would be worth £8,312. Then with regard to pasture. They had in the county 348,000 acres of pasturage; and if they could keep but one more sheep per hundred acres than formerly—and a good farmer would not think much of that—the result would be 3,480 additional sheep, worth £6,960. Thus by a slow, yet a sure process, they would gradually develop the resources of the country. He could scarcely speak upon the subject of agriculture without alluding to the great drought which had so seriously affected the farming interest this year. Persons told them that the dryness of the late season had arisen from the system of thorough drainage. But they could not accept that explanation when they reflected how small was the area of country which was put under thorough drainage, and especially when compared with that of the ocean by which they were surrounded. They could not dive into the secrets of nature, for they were guarded by a kind Providence; but they could tell how to cultivate the ground so as to meet diverse circumstances. Now, wherever he had seen a crop of turnips this year on light land it had been the result of deep autumn cultivation. The ground in autumn was so dealt with that it received and retained the winter moisture, and when the seed was deposited in it in the spring the seed germinated without the assistance of those spring showers which never came to the relief of the farmer this year. He had seen it stated by an eminent agriculturist that barley crops were to be secured by deep autumn cultivation, and although he (the Chairman) saw many objections to such a course, he was not above trying experiments. There would be the loss of the value of the manure, which the sheep folded upon the ground would give to it. They would lose, too, the advantage of removing the sheep from pasture to fallow, which was a great advantage to their feet, and the advantage of clearing their pastures for a time of sheep so as to renew the herbage. Still, for the sake of agricultural improvement, he was willing to make the experiment; and if he was spared until their next

exhibition he would tell them the result. Before dismissing the subject of agricultural improvements, he would express his satisfaction at witnessing the revival so general throughout the country of the old custom of harvest thanksgivings. They heard and read of their being celebrated not only in rural but in town districts, showing that there was a feeling abroad that the gifts of Providence in the fruits of the soil were an advantage confined not to the agriculturists alone, but extending to the community at large. There was a question mooted at the Society's table last year which did not meet with much approval—the Irish Land Bill. If he alluded to it now at all, it was simply to express a hope that they would never in this country require any legislative interference between the English landlord and the English tenant, even upon the vexed question of game. All that was required was a simple, short, and fair agreement between landlord and tenant, with liberal covenants, and a covenant as to unexhausted improvements,—in case of outgoing tenancy. There could not be any difficulty about unexhausted improvements, because he thought that building and draining were the work of the landlord; and when he could not do it the tenant ought to be able to go to the landlord or his agent, and come to an understanding as to how he was to recoup himself for those improvements in case he became an outgoing tenant. There should be a liberal covenant with regard to unexhausted value of manure in the soil. He held that with regard to that the tenant had a Tenant Right. It had been suggested that an arbitrator should be appointed for the county between landlord and tenant. He did agree with that suggestion, because he did not think that any arbitrator could be so appointed who would have the confidence alike of landlord and tenant. The best plan he thought was the custom which obtained in this and other counties, by which each appointed his own arbitrator, and the arbitrators appointed a referee, whose decision was final. As great interest attached to the subject he might be expected to say something upon game; but it was difficult for a landowner, a sportsman, and a game-preserver, to deal with such a topic. Nevertheless, if anything he could say should add at all to the force of what others had said in other quarters upon the subject, he should not be sorry that the matter had been broached. He deprecated in the strongest terms that modern system of cramming an estate with game to the great detriment of the land. Observe, however, he did not object to a moderate quantity of game, particularly if there was not much ground game; because he was convinced that there were very few tenant-farmers who would object to see an owner of the soil enjoying at times a day's sport. It was no argument to him to say that when a farmer came upon an estate where much game was preserved that he knew what to expect before he came. When a tenant bargained to look after trees, or to find a team occasionally for his landlord, that might be so, and he could do it; but there was something indefinite in the matter of game, and the tenant very naturally found more game kept than he expected when he took to the farm. He hoped that those gentlemen who indulged in the great slaughter of game in these days, and which could not be called sport, would see the necessity of curbing their inclination to that pursuit, or public opinion would become so strong that they would be obliged to do so. Next year there would be no meeting of that society as it would be eclipsed then by the meeting of the Royal Agricultural Society at Wolverhampton. He was sorry to learn that the funds required to carry out that, seriously speaking, great undertaking were not yet equal to the requirements. He thought that the suggestion of the committee at Wolverhampton that the gentlemen composing the Boards of Guardians in the country should form local committees in aid of the Central Committee deserved every support, for though the show was to be held at Wolverhampton it was no less an honour and a utility to the whole county.

Mr. BRAWN said: Agriculture, they were told some time ago by the President of the Board of Trade, was in so robust a state of health that the old lady believed that something was going to happen to her. But the President of the Board of Trade was not an authority in agricultural matters, and if they appealed to those who were better acquainted with the old lady they would tell them that she, like many other old women of whom we heard some-times, enjoyed very bad health. She was extremely susceptible of extreme heat and excessive moisture. At the present time she was almost prostrated by

the excessive heat. A few years ago those who took upon themselves to be the instructors of agriculture—and they were not a few—called upon the British farmers to drain their land. They did drain their land, and now they were told by the members for North Warwickshire that they had committed a mistake. The senior member for North Warwickshire spoke of the advantages he had gained by choking up his drains, and the junior member had expressed his belief that they had drained the land too much. Opinions something similar to this had been expressed that evening. He would not on any account say one word that would affect the judicious draining of land, but there was one system of drainage which had proved most disastrous to agriculture, and that was that continuous and unceasing drain upon the British farmer's pockets. It was a very important fact that the population, wealth, and pauperism of this country had increased to a very considerable extent, but that neither wealth, population, nor pauperism had increased in the slightest degree in purely agricultural districts, and yet the payments which agriculturists were called upon to make in support of the poor, for the punishment of crime, and for the protection of the population, had doubled within the last ten years, and in very many instances amounted to about one-third of the farmer's income. The British farmer complained, and how was it proposed to remedy the evil? It was proposed to take one-half of the burden from the tenant-farmer, and place it upon the landlord. He would ask them, as reasonable men, what this would do for agriculture? Agriculture was properly described, a short time ago, as a great donkey, carrying two heavily-laden panniers; and it was proposed to lighten his panniers by taking part of the burthen out of one pannier and placing it in the other. What, he asked, would that do for the comfort or equilibrium of the donkey? He would respectfully impress upon their representatives in Parliament that what they required for the relief of this overburthened donkey was an increase in the number of beasts of burthen, and a decrease in the size of the panniers.

Mr. MASEN pointed out that the judges at agricultural shows discharged very onerous duties; and, as his own experience told him, the faithful discharge of their duties was often followed by unkind and unpleasant criticisms, which he strongly deprecated.

CUMBERLAND.

At Wigton the Hon. P. WYNDHAM, M.P., said he had been very much satisfied with what he had seen at the show to-day, and he thought that Wigton had kept up its character for having one of the most interesting and attractive shows in this part of the kingdom. They had seen a great number of very good horses to-day, and particularly in the younger class. Among the colts and fillies there were, he thought, some most promising animals, and that at a show of this kind was what one cared more about than the show of old horses, because it was from the young horses that those who bred horses must expect to receive that profit to which every breeder looked. There was one part and the only part of the show which did not meet his approval. He had hoped this year to have seen them go back to what he always remembered to have seen at these shows formerly in respect to the system of testing the leaping powers of a horse—a system they used always to see practised in Cumberland—namely, by flights of hurdles at proper distances from each other, properly bushed with gorse, which was all that was needed, for then they could judge how the horse measured its distance, instead of which they saw to-day what he might call sensational nonsense and danger. The first fence he could only compare to a gardener's leavings at the side of a wall when he had trimmed the evergreens. It was not like anything you ever saw in the field. The next obstacle was a lot of loose earth with a shallow ditch on the other side, and he must say he thought those horses were the most sensible who, having once found that there was very little water and a sound bottom, never took the trouble of jumping a second time. The second fence he called nothing more than a mud lark. It might be good fun to those on the stand who had paid their shillings to look on; but really as to a test of what a horse could do, it was sheer nonsense. And then came the third leap, which consisted of high rails. If they had been made stiffer, they would have been so dangerous that it would not have done to send any horse to face them in cold blood. The result was that it was found neces-

sary to make the rails so as to fall down when touched, and the natural good sense of the horse was such that when he even found he could break the leap, he never took the trouble to raise himself up a sufficient height in his jump and go over the top rail. He had attended these shows for ten years, and it was only within the last three years that this nonsense, sensation, and danger had come into vogue. They saw last year a valuable mare, Fanny Drape, which won all over England, come to an untimely end with great cruelty through this nonsensical sensational jumping. He hoped that Wigton show would continue to flourish, that it would continue to have a fine show of young horses, and that they would go back to the old rational system of testing the powers of the hunters.

The Hon. CHARLES HOWARD, M.P., said, referring to the inquiries of the Committee on Local Taxation, he had had an opportunity of seeing Mr Grey of Dilston, who recommended that the Irish system of a division of rates between owners and occupiers should be extended to England.

At Carlisle, Colonel SALKELD, the chairman, remarked: It is said that these are days of progress; and I am glad, among other improvements, to see a great improvement in the toast list. Hitherto, on these occasions, we have been accustomed to see twenty-four or twenty-five toasts on the list; but, owing to the curtailment which has been made, it is my duty to bring to your notice, at this rather early period, what may be called the toast of the evening, which is, "Success to the East Cumberland Agricultural Society" or, in other words, "Our noble selves." It would be difficult, I think, to overestimate the value of Associations like this, or the good they do in creating emulation and in bringing together practical men from various parts of the country, not only to exchange ideas among themselves, but also to impart to those of less experience the result of their experiments in their several localities on a subject of great national importance. There was a time when it was said that the owners and occupiers of the land were, in skill and enterprise, behind the age; and at that time several political economists held that the tillage of the soil in this country was a matter of very minor national importance. Even the late Joseph Hume, amongst the many foolish things which he said in the course of a useful life—and no man uttered more nonsense during a most practical career—was accustomed to declare that England would be as great and as prosperous if not even a blade of corn were grown in this country. But we have outlived that folly, and now, by the energy of our farmers, the progress which has been made in agriculture during the last twenty years has been greater than that in any other branch of national industry. We have also lived to learn that when skill and enterprise are applied to the soil, and Heaven blesses his efforts, the farmer's reward is indeed well earned; whilst his failure is not only an individual loss but a great national calamity. Since the establishment of agricultural associations—and I believe it is somewhat near forty or fifty years since they took root in this country—more has been done for the improvement of our flocks and herds than three hundred years had accomplished previous to the organization of these societies. The days for mere fat and bulk have gone by. The breeder now endeavours to produce an animal which will yield the largest amount of prime beef in a short space of time and on a small amount of food; in fact, the breeder's motto has now become, "Moderate in size, but rich in quality." We must not, however, rest upon what we have already accomplished; for we have enterprising rivals both in Holland and Denmark, and in other countries where the pastures are naturally luxuriant. The Danish farmers have more than once exhibited stock at the Smithfield Club shows side by side with our own, and their Shorthorns have been pronounced to be but very little inferior to those of our native growth. You are all aware of the fabulous prices which are given for bulls for exportation, and you may rest assured that our rivals abroad are doing their utmost to equal the stock bred in this country. We must not, therefore, assume that the arena is entirely our own, to hold without a rival. Beside cattle and sheep, this country has become extremely celebrated for its breed of horses; and those who saw the horses on the ground to-day, and at Wigton yesterday, must have been highly pleased with the progress which has been made. You can now scarcely go to a large horse show—at Islington, or Birmingham, or any other place—without finding Cumberland horses, many of whom are successful competitors. That can only arise, first, from the fact

that our farmers have good mares to breed from; but they are indebted to certain gentlemen for having introduced into this neighbourhood most superb stallions. They have spared no expense in bringing into this county the best blood which England has produced. It is now about ten years since I last had the honour to occupy the chair at the meeting of this Association; and on that occasion I ventured to suggest that advantage might arise if an agricultural college could be established in the northern districts, for the education of farmers' sons in the higher branches of their profession; for it is to the rising generation we must look for the development of that good seed which, through the medium of these associations, has been sown broadcast through the land. Now, if that subject was deserving of passing remark so long ago, surely it is of more importance now, when we consider the large quantity of manufactured manures and the large quantity of oilcake and other things which are used by farmers. To the manufacturers of those manures to which I have referred we are deeply indebted for the introduction into this country of a fertilizer which has been of inestimable benefit to the farmer. But when a new and profitable trade is established in a commercial country like this, you always find some who are ready to embark in it for the sake of immediate profit, without caring very much about the quality of the article they sell. Now, by that remark it is far from my wish to cast any unmerited or sweeping reflection either on the manufacturers or the dealers in those manures. I know many of them to be highly honourable men—men of integrity, who would scorn to be guilty of a shabby or dishonest transaction, and our daily experience proves to us that many of those fertilizers produce the very best results; but that same daily experience also proves to us that much of what is sold to our farmers is very properly called "artificial" manure, for it is often hardly worth the labour and expense of carting. The same remark applies in great measure to oilcake and other food used for stall-fed cattle. It is almost impossible to get it quite pure; therefore it would be a great advantage to have an institution such as that to which I have referred, where young men from the country could be educated upon more scientific principles—where they may learn to analyse the soil which they are to till—where they may be taught to understand the component elements of the crops they are hereafter to cultivate, and thus apply to their production the manures that best suit them—where they may learn to understand the component elements of the various kinds of food used in the rearing and fattening of cattle—and also be able to discriminate between the fat-producing, the muscle-forming, and the bone-creating substances. Surely, in these days, when we hear so much about elementary schools, we might have an Agricultural College in a large agricultural district like this; for I am one of those who feel convinced that we have yet much to learn with regard to the earth's fertility; and I believe, by the application of more scientific farming, many gentlemen in this room will live to see a much larger acreable production than has ever yet been reaped. I believe there are 400 or 500 similar associations in the kingdom; and therefore, not being selfish, let us wish success and prosperity to them all; for by co-operating for the improvement of agriculture, they are not only assisting in the development of the national resources and in reducing the national burdens, but are adding to the welfare and happiness of the whole kingdom.

At Whitehaven, Mr. BENTINCK, M.P., wished the rule that no politics must be imported into these dinner proceedings could for a year be binding in the House of Commons; what an enormous amount of useful legislation they would then be able to get through, instead of the interminable party fights which now occurred! Many important subjects awaited treatment, amongst which he prominently named Local Taxation. That had been referred to a Select Committee, which had brought in a most unsatisfactory report. What he wished them particularly to consider was whether any re-arrangement of burdens simply between occupiers and owners was anything in the world more than a mere shuffling of the cards, and whether it could be attained with any useful results—whether there were not certain burdens which were imposed by local taxation both upon agriculturists and upon inhabitants of towns, which ought to be borne, in part at least, by the State. Such, for instance, were the burdens placed upon counties in respect of the militia; then there were others in respect of lunatics, others in respect of the general police; and many burdens of the same kind, which were, in point of fact, not

only for the benefit of a particular public, but also of the public at large. Mr. Goschen had two years ago suggested the addition of a penny to the income tax in order to relieve local burdens, and he hoped the public would put pressure on their representatives in order to get something effectual done.

Mr. FLETCHER, M.P., the Chairman, was glad to hear Colonel Lowther, who is well known to be a good judge in these matters, say that the exhibition of agricultural horses and of cattle was eminently satisfactory; and I was also glad that Colonel Lowther had the courage—and I have never yet heard that he was deficient in courage—point out the very glaring defect which I think was apparent to all, however little they may know of the science of horseshoes, the great defect that was apparent in some of the other descriptions of horses which were exhibited. I myself do not pretend to be a judge of horseshoes, but I believe that Colonel Lowther is; and I remember the dietum of the celebrated Tony Weller—a gentleman that all of you have heard of, I have no doubt—who said that the man who was a good judge of a horse was a good judge of anything; and I think there is a good deal of truth in that sentiment. I remember very well, many years ago, attending one of the meetings of this society when the chair was occupied by the present patron of the society, Lord Lonsdale, who made use of an expression that I have frequently thought of since. He said that men of science might talk whatever they liked about mineralogy, and about geology, and about all sorts of "ologies," but that in his opinion the best "ology" to which any farmer could devote himself, was the science of "muckology"—and I believe that although that opinion was uttered a great many years ago, it still holds good at the present day. I think there is one subject which farmers have entirely neglected, and which, in my opinion, they might very beneficially devote their attention to. We all know that, in the present day, ample and sufficient drainage is absolutely necessary if you would have a remunerative farm, and farmers, I believe, are guided in laying down drains chiefly by the position of their land and by the nature of their soil. But there is one thing which I think they entirely overlook, and it is a matter of very great importance in a county like this, and that is the rain-fall of their locality. We live in a county where the rain-fall varies to a greater extent than in any other county either in England, Scotland, or Ireland, for we have in the same county localities where the average fall of the rain throughout the year is only some 23 or 24 or 25 inches, and we have other localities where the average rain-fall varies from 140 to 200 inches; and I do think that if farmers who devote their attention to draining, and landlords, who are also interested in this question—if they would give more attention to the rain-fall in each locality, it would prevent in many cases small and inefficient drains being made, and in other cases it would prevent unnecessary expenditure of capital upon drains which really are not at all required.

DERBYSHIRE.

At Derby, Lord EDWARD CAVENTISH, the chairman, said: We have just passed through one of the finest summers ever known in this country, but it has been accompanied by a drought of such unusual length that, pleasant as it has been to many of us, it cannot be regarded as having been a favourable season for agriculture. Should a very severe winter follow I fear that the shortness of the hay crop and the failure of the turnip crop will make the winter a very trying one. Very dry summers, like that of this year, are amongst the greatest difficulties farmers have to contend with. In the case of very wet summers, we can take what precautions are in our power; but very dry summers come at such rare intervals that we are not prepared to meet them. It seems to me well worthy the consideration of a Society like this, whether it would not be practicable to store some of the superfluous water of one part of the year for use at those times when only a very small quantity of rain falls. I cannot but think that that would be a most useful thing, and that it might be done without a very great outlay. There is one other subject on which, with your permission, I should like to say a few words. We must all regret that we are deprived to-day of the presence of two gentlemen—Mr. Coke and Mr. Crompton—who have usually attended these meetings, for the subject on which I wish to say a few words is one to which Mr. Crompton drew your attention last year. I refer to the manufacturing of cheese. I regret Mr. Crompton's absence the more because I believe it arises from

indisposition; but you will remember that this time last year he communicated the results of numerous and careful inquiries which he had made on the subject of the manufacture of American cheese. It occurred to him that a similar system might be adopted in Derbyshire, and he brought two facts prominently under your notice; one was, that the make of cheese was diminishing in this country to a considerable extent, and the other was—and it was a still more lamentable fact—that the Americans were competing with us in our own markets. The object which we ought to have in view in reference to this subject appears to me a very plain and simple one. If it is found, after a fair trial, that the general average of cheese throughout the district can be improved by the factory system, that the improvement can be effected at a diminished and not at an increased cost, and that a better price than formerly can be obtained, then Mr. Coke and Mr. Crompton might safely advocate the adoption of the system. With reference to these points I have made some inquiries, and although my remarks will not have the weight which they might have, if communicated by some one personally and practically familiar with the subject, I may tell you that Mr. Coleman, who has always taken a deep interest in this subject, has kindly placed some facts before me which I think will interest you. I infer from what he says of the results of the concentration of labour, so far as those results are at present known, that the cost of production is very considerably reduced. Mr. Coleman estimates that taking the yield of 500 cows a saving of £400 a-year is effected by turning their milk into cheese on the factory system as compared with the old farm-house system. That fact speaks for itself, and I place it before you just as it was given to me. With regard to the quality of the cheese made on the factory system, so far as I can learn the tests applied have been sound ones and the result has been satisfactory, namely, that the price obtained for the factory cheese is better than that hitherto obtained for the produce of almost any dairy in the county. It may be replied to all this that there are some very considerable objections to the factory system. I mention these alleged disadvantages with some hesitation because I have no practical knowledge on the subject, but it is said that if you take away the manufacture of cheese from the dairies you will take away the occupation of the wives and daughters of the farmers. I do not know whether that will be considered a disadvantage or not; but for my own part I have never been in the habit of looking upon the wives and daughters of farmers in other parts of England where cheese is not manufactured as an idle and unoccupied class. There is plenty of useful work in the house for them to do. The comfort of the house depends, of course, very greatly upon them, and I cannot help thinking that both wives and daughters would be a good deal happier if they were relieved from the drudgery of making cheese. I do not give you my own opinion on this subject, but I have no doubt this view will have its influence with farmers in determining whether or not they shall support the factory system. There is another objection to that system which is put in this form. The farmers say they have done very well up to the present time, and they would rather things remained as they were. That may be all very well at the present time; but I must say from my personal knowledge of many Americans that they are a stirring and active people, and if they find they can compete successfully with us they will not rest until they have driven us out of the market. It will not do for us to stand still, but we must push on and do the best that can be done. I cannot close without asking you, whether the experiments succeed or not, to give these gentlemen—Mr. Coke, Mr. Crompton, and many others—full credit for being actuated solely by a desire to benefit the farmers of the district. Look into the matter for yourselves, for it very closely affects you. Do not take my word as answering for the success of the new system, or the word of any other person as answering for its failure. You have opportunities of seeing the system at work both here and at Longford, and I ask you to see for yourselves, and form your own opinion on the subject.

Mr. NUTTALL said, referring to the cheese factory, that the price given for the milk was equivalent to 77s. 6d. per cwt., which he thought in an average season was a very fair price, and if they could get above the average price the first season he thought they might infer that they could do still better another season. There had been a considerable amount of prejudice against the cheese, and the complaint against it was

that it was not old enough. They certainly could not make old cheese, but there was no doubt that every day it was kept would improve its taste. He, however, thought that the general favour with which the cheese had been received augured well for the ultimate success of the Derby Cheese Factory, and the statement which would at a future time be laid before them would be both satisfactory to the guarantors and to the public.

Mr. HENRY CORBET for the judges said, only last week he had acted in a similar capacity in an adjoining county, where one of the management who proposed "The Judges" did so in a very feeling and almost affecting manner. That gentleman said the judges had very onerous duties to perform, but he was sorry to add from his own experience, that these duties were frequently followed by some very unkind and unpleasant criticism, which he strongly deprecated. Now, he (Mr. Corbet) could not altogether agree with this. Honest, straightforward criticism did a deal of good in many ways, as he could not help thinking that the progress of these Societies had done something to improve the breed of judges as well as the breeds of stock. Besides, the great fun of the fair after all was judging the judges; and he could imagine nothing more insipid than that when the visitor took his entrance-ticket he should be bound down as it were by a sort of moral obligation not to whisper a syllable against the correctness of the awards. Such a course would not only threaten to become insipid, but impolitic and unwholesome. "To err was human," although he had once heard a clerical-looking gentleman who had been acting as a judge of poultry declare that he had never made a mistake in his life, and never before or since had he (the speaker) looked with so much reverence at any man in a white neckcloth. But putting poultry out of the question—those elegant Cochin Chinas, those beautiful Bramah Pootras, or those still more wonderful varieties, the aim with some of which seemed to be to breed them without any tails, and with others all heads and chignons, like the devout young people they saw in church on a Sunday morning. Admitting that a parson must from some inscrutable cause be an infallible judge of cocks and hens, there were other judges, from the highest downwards, who were merely mortal. Brougham was said to be a bundle of crotchets, and Eldon full of prejudice and port wine; as he really believed half the judges of stock were full of prejudice and port wine. One hated Bates, and the other did not quite fancy Booth; but they were none the worse for a little prejudice or port either. Still, whatever the public said about the awards the less the judges themselves said the better. He did not know whether when the work was over but that an active steward should caution each of them just as a policeman was bound to do any other unfortunate man who had got himself into trouble: "Now look here, anything you say will be used against you, so perhaps you had better hold your tongue until some of your friends have been to see you." Were he discreet he (Mr. Corbet) might stop here, but he should like to say a little about his own business on the ground. He could remember, and not so many years since, when the riding horse classes were almost the laughing-stock of these meetings, such failures indeed, that the Royal Agricultural Society had occasionally struck the premiums out of the list. Since then "the nags" had become far away the most popular feature of these occasions. There was no mistake about it, although there was one element in any such a popularity with which he could not quite go. No doubt the jumping business "drew" in the way of shillings and half-crowns, but it was no test as to the actual merit of a hunter, as many of the best or best-looking horses he found declined to take part in these exhibitions, and he should prefer to judge the hunters as they did the other horses, and then let the public judge the jumping and the judges. It was difficult at these times to touch any topic that could not be brought to bear on the war, and he saw that a friend of his had been writing to the papers on the way in which our cavalry was mounted. The light troops were the most useful for modern warfare, but the men were not so well horsed as they might be, and it was proposed to remedy this in the usual way—that was by starting a company. Let them call it the Light Dragoon Horse Company (Limited), for breeding troopers, to be sold to the Government, at three or four years old, at regulation prices. Would anybody in the room like to take any shares? Or, if that would not do, the letter went on to recommend the esta-

ishment of Government studs for the purpose. But by the time they had secured an efficient manager, a staff, farm, mares, and so forth, he feared the cost of growing a troop horse would open the eyes of political economists when they came to pass the accounts. Of course he had a notion of his own on the subject, and one that would tend to thought to make these Societies still more useful, as a little countenance from Royalty or Government would not be out of place. Some three or four thousand a year was given in Queen's Plates, which had outlived their use, as they did little good now either in providing sport or improving the breed of horses. He was not going so far as to say these should be done away with; but if we could afford to spend so much in one direction, we might surely offer a few Royal Prizes at the leading agricultural shows for the best thoroughbred horses; and by such patronage or encouragement at a small outlay some benefit might follow in increasing the supply of well bred stock.

Dr. HITCHMAN said the pursuits of agriculture can never be satisfactorily and successfully carried on on a mere cold, calculating, commercial basis, on the broad principle of an abstract political economy; for they differ from ordinary trade in many essential particulars, and mainly in this, that one man is working upon another man's property, and every day of his life he is either exhausting or improving that property; and this exhaustion or improvement is such that cannot be accurately measured by a foot rule, and here moral sentiments and feelings are necessarily brought into play. Again, the nature of the farmer's pursuits is such that he cannot make the supply to be always commensurate with the demand he cannot obtain more than one crop of wheat in an entire year, and therefore the cardinal principle of energetic trade cannot be realized of "Small profits and quick returns" for, however small the "profits," the "returns" cannot be quick; and every practised farmer will bear me out in this that there are circumstances which happen to the highest skill and the most abundant capital, and that seasons influence the result of crops to a greater extent than either or both combined; and superadded to these special peculiarities is the terrible one, developed by the importation of foreign cattle, of contagious diseases by which hundreds, nay, thousands of cows are destroyed, the labours of years of breeding skill annihilated, and capital to an incredible amount, ay, to an amount exceeding the vast sums lost by the cotton famine, sacrificed and gone; and therefore, if the pursuit of agriculture as a livelihood removed wholly from the sympathy of the public, he brought in its social relations to the simple condition of an ordinary trade, and be carried on between landlord and tenant with none of the chivalrous feelings of the olden time, but solely, absolutely, and exclusively as a pound, shilling, and pence spirit; the days of English agriculture are numbered. Vast factories would crowd all our hills and all our valleys. We should become the manufacturers, the colliers, the carriers for the World! One vast canopy of cloud and smoke would hang like a bird of darkness over the land. Brightness and beauty would be gone. Flowers and grass, trees and waving corn, the sunlit landscape, and the gorgeous clouds would pass away. The bright eye, the rosy cheek, the jocund laugh of ruddy health would be displaced by sallowness and grime, and the beautiful England of our forefathers would be no more! Happily it is not so; the public honour the pursuit, and the innate love of the English for well-formed animals, and for the cultivated products of the field, will, I trust, cause them to continue to honour it for evermore. They now honour it in a manner that they honour no other, as your presence here at this moment testifies, and as other facts testify. Tens of thousands of persons from our crowded cities crowd to see the mere fat stock of the Smithfield Cattle Show; hundreds of thousands through the show yards of the Royal Agricultural Society; and even in this our Provincial Show, we have been gladdened and honoured by the visits of many thousands. It surpasses all other pursuits in its importance to mankind, and therefore I earnestly hope it may continue to receive the sympathy and respect of the public, and that English agriculture may for ever hold the first rank among the cultivators of the earth. I would say something on the Game Question. It is far, very far from faultless, is the Game Law, but it is not so debased or debasing as some of the men who have denounced it for their own sinister ends. Few large landlords at the present day withhold from their tenants the right of destroying rabbits—those foes to all pro-

fitable agriculture—and I hope the day is not distant when none will do so; and I am glad to say there are few indeed in this county who preserve an undue quantity of ground game. But in addition to this good quality I hope yet to see the landlords ignoring all mere petty politics, and aiding their tenants in the great work of regulating the local taxation of this kingdom, which is annually increasing in variety and amount, and widening the area from which it is gathered, and pressing equally, equitable on all classes the burthen of providing for such national purposes as vaccination, registration, the police forces, and the maintenance of the paupers and lunatics of this great country.

At Chesterfield, Mr. MARKHAM said, the President had justly complained of the very contemptible breed of cattle which existed in the county. He himself had seen stallions led about the country during the past season, which in his opinion ought to have been taken to a slaughter-house. He would merely throw out a suggestion with reference to improving the breed of cattle, and that was for a branch society to be formed with a capital; say, of a couple of thousand pounds, which should purchase the very best description of horses, bulls, sheep, and pigs, and if they were let out to the farmers with the distinct understanding that the charge would be no more than that at present in use, they would not be slow to avail themselves of such advantages, and the breed of cattle would be materially improved. The farmers in this district, owing to the smallness of their occupations, were not able to buy such animals for themselves, and they had no chance at present of getting a better description without paying very dearly for it. They must remember it cost just as little to breed and rear a superior animal as an inferior one, whereas the profit at the end was immeasurably greater. If the large landed proprietors, such as the Dukes of Devonshire and Portland, were to come forward in the matter, and if intelligent farmers like Mr. Crawshaw were to provide over it, he was sure such a scheme would work well.

At Alfreton Mr. C. SEELEY, M.P., the Chairman, said: In this district we have very good turnpike roads—I wish I could say the same of all the bye-roads. My impression is, that if the agriculturists would set themselves to work and would make the bye-roads better, it would have the effect of making the highway rates lower, and would save a good deal in teams. I know some bye-roads in this neighbourhood which certainly are not in a good state. There is one occupation road, so called, especially, and a pretty occupation it is to traverse it. The owner of this occupation road is a large farmer, and in taking his corn to market he has carefully to steer clear of the many ruts that abound in it. There is another matter which was alluded to at the Agricultural Society's meeting at Derby last week by Lord Edward Cavendish, which struck me as being exceedingly appropriate, and that is whether it would not be possible for the tenant farmers in this country especially to combine together to carry out a general system of irrigation. I believe that there are many places in this neighbourhood—certainly in this county—in which the system could be employed to great advantage. The quantity of grass grown on land irrigated is enormous, and anyone going to the Duke of Portland's water meadows would see what great results may thus be obtained. Very few farms are of sufficient extent for the occupiers to do this of themselves, and it is only by combination that any practical results can be arrived at. There is another matter I should like to see the tenant farmers take in hand, and that is, rates and taxes. There is no class more deeply concerned in the subject of rates and taxes than the farmers of this country. So far from growing less, rates every year become more serious. Now there is no doubt that in the long run the landlords do pay the taxes, for if there were no taxes the rents would be higher, but it is often found that the "long run" is a very long run indeed, and as farmers do not now live to the age of Methuselah, it may well happen that they may be ruined before the process of adjustment is carried out. I sat on a committee of the House of Commons last session upon this subject. We examined all sorts of people—collectors of rates, agents, landowners, owners of house property, and so on, but not one real tenant farmer came before us to give evidence. Yet we sat for months. Certainly a gentleman of great ability, who is a tenant, Mr. Sewell Read, was examined, but he could scarcely be said to be a real representative of the tenant-farmers. I think that farmers should take more part in the dis-

ussion of this subject. Another question of great importance to you is the advance of wages, which you may depend upon must go on, and which you should, as prudent men, anticipate and prepare for. The question is if we cannot meet that difficulty by reducing the rent and taxes. Some people think rates are a necessary misfortune and that "what cannot be cured must be endured;" but I cannot think it is not a state of things with which we should be content, that one person in every 20 should be receiving relief. I think it very advisable for tenant farmers to make their voices heard on this question. I heard a gentleman say the other week that in his parish, although they had no poor, they paid 3s. in the £ poor-rates, most of the poor living in a neighbouring town. It does seem to me very important that the views of agricultural occupiers on these subjects should be ventilated. Then there is that ticklish question, the game laws, and it is exceedingly desirable that in every district there should be some means by which the farmers could meet together, and discuss these subjects. In towns they have their Chambers of Commerce, in which they can discuss the questions affecting their trade; they have their Town Councils and so on, and I think some means should be afforded by which farmers could discuss questions affecting their interests.

Mr. PETER BOWNE saw no more reason why a farmer who produced milk should manufacture it into cheese than why one who grew corn should grind it into flour, and if they could get as good a price for their milk without having to make cheese many dairy farmers and their families would feel it to be a very great relief.

Mr. ROWLEY said, one fact to which he would briefly allude was the continual exodus of the labouring class. Perhaps it might be said in reply that they should advance their wages and improve their dwellings, and certainly something more might be done in respect to this; but it appeared to him that there was a growing dislike on the part of the labouring man to agricultural work. He appeared to prefer the work of the factory or the mine. It was a question of great importance; and had it not been for the introduction of the reaping and mowing machines, great difficulty would have been experienced during the late harvest in getting it in for want of hands. No one was more willing to contribute to the expenses of the State than the agriculturists; but it was monstrous that they should be called upon to pay income-tax when, during the last three years, it was patent to all they had realised no income at all ("You are na' a long way off it"). That was the result of the excessive drought, which they must look upon as a great national calamity. He hoped the Government would take into consideration this deplorable calamity, and that their chairman would do all in his power to remove an impost which was looked upon with dissatisfaction by a great part of the community.

Mr. NUTTALL said it appeared to him that his *forte* that night was the question of cheese. He happened last year to make a few observations which had resulted in what they had tasted that day. He had been asked the question, "Does it, or is it likely to pay?" In answer to that he would say that by the factory system they were able to produce more cheese from a certain quantity of milk than was made in home dairies: They produced 1 lb. of cheese from 9 lbs. of milk. A gallon of milk weighed 10 lbs. 14 oz. as a rule, but it varied a little during the season, and the average make was a pound of cheese to a gallon of milk. He left it for them, after having tasted the cheese, to say if by the factory system they could make as good a cheese as farmers could at home. At all events they could make as good a price, 83s. 6d. being the last price realized in London for the Derbyshire factory-made cheese. He believed, too, they could make it for 2s. 6d. per cwt., and he did not think farmers could make it under 7s. 6d. a cwt. (A Voice: 10s.). If a man had thirty cows, he must pay a dairy-maid £15 or £16 a-year. (Mr. Haslam: £20 if she is worth anything). Her living would be worth more, and they might put down the two at £35. From thirty cows they would not get above six tons of cheese in a good season, or 4 cwt. per cow, and therefore the dairy-maid alone would cost 5s. per cwt. Other little et ceteras would certainly amount to 2s. 6d. per cwt. There was some little difficulty about the offals, which the dairymen did not like to lose, but this would be easily remedied, and he was satisfied they would approve the change when they found their homes were made more comfortable,

and more like other homes. For his part he could not see why their wives and daughters should be greater slaves than the wives and daughters of arable farmers. If they could make as much money by the factory system as they could by making cheese at home, they would relieve themselves of the great difficulty, anxiety, and uncertainty of its manufacture. They intended to publish a balance sheet at the end of the year, and they had no reason (except from the dryness of the season) to be disappointed with the result, which in truth had exceeded their most sanguine expectations.

At the Bakewell Farmer's Club, Mr. NESFIELD felt convinced the harriers had done as much good in this country as a whole legion of parsons. He maintained that a pack of hounds brought men together, and united them, and made friends of them. Every age had its special feature, and the curse of this age was effeminacy, especially amongst the young men about London, whose moustachios were waxed until they were as sharp as a pin point, and who if they came into Derbyshire and followed his harriers, he guaranteed would be so done for as never to be heard of more. The chase was an antidote to the effeminacy of the age, believing as he did, that the talk of the hounds made a man's heart right as well as his body.

WILTSHIRE.

At Marlborough, Lord Ailsbury said: He did not think it right to give persons prizes simply for doing their duty, as it was almost invidious and excessively difficult to draw the line between what duty was or was not of advantage to agriculture. He always doubted whether there was any reason for giving a recompense to a person for being forty years in the same service. If a master had tolerated his services for forty years, it was probably rather a bore. Not but what he had men who had served his grandfather, and he always took the greatest interest in them, and every possible care of them. But he did not think it any advantage to agriculture that shepherd, or a carter, should never change his master for thirty or forty years. The prizes of this Society should be given not only to those who excelled in labour, but it should be to the advantage of agriculture to promote that particular kind of labour. For that reason he preferred to see prizes given for the best description of ploughing, in accordance with the most advanced ideas of what ploughing ought to be. Ploughing twenty years ago was vastly inferior to what it is now: they might get plenty of men to plough with three horses and a boy, but they wanted men to plough with two horses without a boy. This was the case in the north, where he obtained considerably more per acre. He was speaking to the employers of labour, and he was well aware of the difficulties they had to contend with. There was no doubt about it; their labourers were not sufficiently paid. He advocated that their labourers should be paid and treated as they were in the north, where he was ready to admit he saw much better labourers. There was no denying that if the labourer of the north earned more wages, he did more work for his master than was done in the south. He would not pretend to deny it. He often had bodies of men to work for him at draining and other matters, and he always employed north country gangmen, directing them to give men Yorkshire wages for Yorkshire work, and Wiltshire wages for Wiltshire work. He admitted that the gang diminished, and they could not keep Wiltshiresmen up to it. Wiltshiresmen did not work so hard as Yorkshiresmen. He was sorry to say it, but he had an opportunity of seeing the two systems at work; he was not a practical agriculturist, but from what was pointed out from time to time by his farmers and agents he saw a great distinction between the work of the north and that of the south. There was ample excuse for the farmers not giving the same wages as in the north, because they did not get the same amount of work done. In the first place they were better fed, because they had better wages, and it was for employers in the south to consider whether by giving them increased wages for two or three years, they would not be stronger and do more work. [Mr. Wentworth: They would be more lazy than ever.] The difficulty was to get up to Yorkshire work. Sir George Jenkinson had said it was very hard upon one class of persons to pay for the education of persons who, as soon as they became educated, would very likely leave the district. That was exactly what they wanted. They wanted to get rid of the men here, for it could be proved from blue-books (statistics of the population engaged in the cultivation of land per acre were easily obtainable) that there were three times as many agricul-

ral families in this neighbourhood as were needed. The greatest boon they could confer on the neighbourhood, far superior to building cottages or other benevolent acts, was to get rid of one-third of the labouring population. Then they would not employ so many labourers per acre, more work would be done, and they could afford to pay them higher wages, and would themselves become more prosperous, for cultivation was done cheaper wherever the wages were highest. Mr. Bolam could show it them in blue books, and it had been proved over and over again. The consequence of the superabundance of labour was that poor rates were double what they were in Yorkshire. There they had no poor men in the villages; he could never obtain one to hold his horse, for they were all at work. They never came to him to ask for work, but in Wiltshire this was the case over and over again. This was accounted for by the proximity of manufacturing towns, and it would be the greatest boon to this neighbourhood if Marlborough were to become a large manufacturing town. If Marlborough became a large manufacturing town they might have a difficulty in obtaining labour, but it would be a great deal better; labourers might not be so subservient, a little more troublesome, but the result would be that all would be better for it. In other respects the farmers of the neighbourhood had made great strides, and he must congratulate them especially on the advance they had made in steam cultivation, by which they brought, as it were, so many more hands to bear at the moment they wanted them. He was convinced the system of the north was the best, that here they were overburdened with population, which entailed heavy poor rates, and they employed three men where they wanted two, and five horses where they only wanted three. They were improving but so slowly and so gradually that their sons would get the benefit, and he hoped those who came after him. He could not help noticing that the men he saw that day were remarkably well dressed, and though he had a small frock, of which he did not see above one, he thought it of the highest importance they should have a regard for their personal appearance. This would be the case as they were more educated, and result in their being tidier and better dressed. With the subject of education he would not trouble them, except to say that he was not disposed to take such desponding views as his reverend friend (Archdeacon Stanton). He could quite understand that any member of his profession would be especially anxious when a change of this kind occurred, as to a certain extent they had the control of this important work, which was now to an extent taken out of their hands. Knowing how conscientiously and liberally they had always performed the work, he could quite understand they felt great anxiety, being afraid of seeing their flocks dropping from under them. As far as he was concerned, being a subscriber to schools in the whole neighbourhood, he would do his utmost to prevent such a misfortune here, and he asked the assistance of other gentlemen present. He was not aware what it was the intention of the Bishop of the Diocese to recommend, but he was about to have a conference, and had asked his lordship among others to attend. He was going down next week, and might learn something from the enquiries made and statistics obtained by the Bishop. Generally speaking schools had been provided for the parish through the instrumentality of the clergy, and hereafter there would be two ways of dealing with them, by keeping up their subscriptions, or by withdrawing them, allowing each to pay his proper share by way of rates, and electing a school board, and purchasing the school and master's house, which, as it happened in some cases, belonged to him. He should be benefited by the last system, as they would be supported by rates instead of subscriptions as they would, he thought, be conducted in a superior and more expensive mode, he asked them to ponder this in their minds, that those gentlemen who wished to be relieved from the necessity of paying rates might subscribe, and thus be saved from purchasing the school-house, and obtain other advantages. The schools would of course be required to be conducted in accordance with the principles laid down by the Committee of Council on Education, whenever they came out, to include of course a Conscience Clause, and in accordance with the principles of the new Act. They were not obliged to adopt the voluntary principle, but in this instance good might attend it. He did not want to benefit by the new Act, but was willing to contribute what he had contributed before. They must come up to the requirements of the Government, then it would not be

necessary to adopt school boards and the compulsory system. He anticipated, therefore, gentlemen were willing to continue the voluntary system in the modified form, and he hoped the rev. gentleman's apprehensions would not be verified. He had a high opinion of the value of education, even in a labourer's ordinary work, and thought its effect would be that those ambitious, restless spirits who now gave trouble at home would go elsewhere, and they would get rid of them altogether, although it was true the stupid fellows would remain behind. But he thought they would all be the better for it. He recommended them to put their shoulders to the wheel, and do the best they could to carry out the voluntary system, otherwise he was for compulsion. Compulsory education and compulsory military service was his view of what was right for the country.

ESSEX.

At Great Broxton Col. BRISE, M.P., said: We have not had an English Land Bill yet. We had the Irish Land Bill, as you all know, and I believe that bill to have been necessary and expedient under the present condition of that country; but whatever our political feelings may be we cannot but admit that it was subversive of the principles of the rights of property, and that it was subversive of some of our old-established notions of political economy. As a farmers' representative in the House of Commons it has been my misfortune on one or two occasions to put the government of this country in a minority when we thought the farmers' interests were at stake. The Chancellor of the Exchequer wanted to prevent the farmer from scaring or shooting rooks or crows on his own lands. We, as representing your interests, protested against this, and put the government in a minority upon that point. The Chancellor of the Exchequer refused to make any exemptions in the case of the tax on guns in the interests of the farmers, and we carried this amendment against him; but as he then threatened to throw up the bill, and as that was not quite the wish of some gentlemen—though I am not very fond of it one way or the other—but as it was not the wish of some of us to put him in a minority on that point we consented to a compromise enabling the occupier to kill rooks, rabbits, and vermin upon his own land, but not to employ anybody else so to do, unless he takes out a certificate for himself. Well that was better than not being able to do what you like with vermin and birds that depredate your crops. The Chancellor of the Exchequer then wanted to impose a tax upon your farm horses, and to make no exemption on any terms, but to tax horses employed in agriculture if they carted materials on to the highways. We thought this most unfair, and by the help of the Speaker we again put the government in a minority. Time would not allow me to go into the many measures that have come before Parliament in the interests of those before me during the past session. You know what took place on the malt-tax; you know how little has been done in reference to local taxation, and you know what discussions we have had on the corn laws. These are three questions which all want a long time for discussion, and at this hour of the evening I will not venture to trespass upon your patience by dwelling upon them. But there is one question of greater importance to the agricultural labourer than any other, upon which I must claim your indulgence for a few minutes; I mean the education of the agricultural labourer. I will not go into all the details of the Education Bill. But you will remember that in this diocese our Bishop held a Conference in July last; on the merits of that Conference I will not here dilate; sufficient to say committees were appointed by the Conference, and the Bishop did me the honour of placing me upon a committee in reference to education, so far as related to this county. We had our first committee meeting in London the other day, and after a great deal of discussion we arrived at the determination to ask the Bishop to make an appeal to the whole of his diocese for subscriptions to aid those parishes in which it was necessary either to enlarge or build fresh schools. At the present moment there are something like 50 or 60 parishes in this county where there is insufficient school accommodation, and it is most important that steps be taken immediately, for this reason, that unless you have your plans sent in to the Privy Council before the 31st of December next you will have no opportunity of getting any aid from the government, or of receiving any government grant for building or enlarging your schools. Therefore, although I confess

this rather a dry after-dinner subject, I take this opportunity of mentioning it, as time is valuable to those parishes that have not sufficient educational accommodation. No doubt the appeal that will be made for subscriptions will be met by many objections. We should hear from many, "I have my own schools in my own parish to attend to, and cannot assist in this undertaking." Others will say, "If I subscribe at all I shall not subscribe to parishes and schools in this diocese generally, I would rather subscribe to those in my own immediate neighbourhood." Others again will say, "I do not see why we should subscribe to those parishes that have neglected their own duty, after we have done ours." And further, many will say, "I don't feel so very sanguine, I don't care so very much about getting these government grants; I should not object to see school-boards established in the different parishes or education paid for out of the rates." These are all objections which we shall have to meet, and my advice to you is, whatever you do, if possible avoid an education rate—and for this reason, principally, that a rate falls exclusively on one class of property—it falls on the overburdened, overweighted land. It is true that the shopkeeper and the professional man may pay some portion of it, but they only pay on their houses; and the wealthy man will only pay on his house. Now, then, is the time to make an appeal to all those wealthy men and others who have no local obligations or local responsibilities; and they have an opportunity of aiding those parishes that are not able, perhaps, to help themselves; and I have no doubt large sums will be collected, if not from agricultural districts, at any rate from those districts in the neighbourhood of the metropolis where we know wealth and plenty abound. Some may say that the parishes ought to help themselves, therefore they will not subscribe to this fund; but it should be borne in mind that the fund will be in the hands of those in whom you can fairly place confidence, and aid will not be given to those parishes where the parishioners, or the squire, or the leading occupiers have neglected their duty, but simply to those parishes in which they have not had the means to supply their wants. Again, I say, avoid education-rates, and I hope dissenters in those parishes will come forward liberally, if they have not any government school of their own; for although these will be Church of England schools, they will be well protected by the conscience clause, and therefore there will be no religious difficulty. If possible, I should strongly advise those parishes in which they have no schools at the present, to let the dissenters have a share in the representation of these schools. I would go further even than this, and say, let a school board exist and let them have the management of the school, and let the ratepayers elect the school board. I do not say this from any desire to take the patronage out of the hands of the clergy. We know that in this matter of education we are under unbounded obligations to them; but I say so because I do not think we ought to impose too much labour on the clergy in this matter. And another reason is that I want to see all the inhabitants of the parishes take more interest in the education of their children than they have ever done before. Therefore, I say, give the people an interest in the subject by enlarging your administration. Another advantage resulting from the election of your school boards would be that you would be able to put the compulsory clauses into operation. Now do not let me be misunderstood when I advocate the compulsory clauses. When I speak of compulsion I have not in my mind any thought of the policeman, or the magistrate, or of any harsh measures at all; I speak of compulsion as I believe it could be carried out by any local board or any board in our different country parishes, by whom it would be carried out in a spirit of love, and benevolence, and kindness. And I do not think it would be at all impossible or impracticable to put the Factory Acts into operation if it should be the opinion of the local board that it was desirable to do so. I believe that if you thought it necessary to compel parents to send their children to school—though I believe you would not find it necessary in many parishes in this county—you would be able to put the Print Works Act into operation, whereby you could compel a boy to attend school for 150 hours in the six months, which would be equal to 60 days in a year, without materially affecting any of the sources of livelihood of the parents of such boy. The "religious difficulty" in the House of Commons is no difficulty in the country; the great difficulty, in my experience,

and in that of other people, is in getting the children to attend school. My friend Mr. Mechi and myself have often had amicable discussions on the agricultural topics of the day. I am sorry to say we do not always agree, and I should have preferred speaking after him rather than before him. He wishes to carry out the commercial principles of this country in regard to land to a much greater extent than I do, and I should like to ask him how it would be if we carried out this commercial principle to its furthest limits. I ask him what is the result in Scotland, where this principle has been carried out entirely? What is the consequence so far as farmers are concerned? The rents in Scotland are at the rack. There is not a farm in Scotland that is under let, and many land-owners let their farms by tender or by auction. Would you like that to be the case in this country? This year I have been working very hard, and among other duties I have been sitting on the Local Taxation Committee. I will not go into that question to-night, but merely remark that we had before that committee Mr. Caird, whom Mr. Mechi knows very well, and who has investigated the question thoroughly, and he will tell you that the rental of England is very much under its value, and he told the committee that he believed it would conduce very much to the deterioration of the happiness and welfare of the people of this country if it were raised upon the same commercial principle as they have in Scotland.

Mr. MECHE came to the important question, How could they increase their profits by farming? The interests of landlord and tenant were concomitant and concurrent; and it was to their advantage to abolish open farmyards, as being a source of loss, and to substitute covered and enclosed yards for their cattle, which would increase their profits.

Mr. W. FAIRHEAD: Decidedly not.

A VOICE: Who is going to put them up?

Mr. FAIRHEAD: I don't agree with you.

Mr. MECHE: I do not expect my friend Fairhead to agree with me. But you cannot gain say facts. When you look at it dispassionately you find that covered sheds for cattle increase your profits. They preserve your manure with all its virtues, and preserve the health of your cattle, and I would lay strength upon that point while you are complaining of disease among your cattle.

Mr. WAKELIN: If you inclose them you make them worse.

Mr. FAIRHEAD: I quite agree with you.

Mr. MECHE: We are at present in the dark as to the causes by which our cattle are affected, but how is it that they are never affected when kept under cover?

Mr. WAKELIN: Generally so, not never.

Mr. MECHE said there had been no disease in his covered yard for the last 20 years, and the same could be said of many other farms where the same plan was adopted. He had reason to believe that many of the diseases that were prevalent proceeded from the variation in the temperature, from the insects and various things found in the grass, and from the various conditions under which the food in the open field was eaten. Nobody objected to folding sheep on the land; everyone approved of it, because the land then got the benefit of all that resulted from the food, but it was not so in the open farmyard, where the virtue of the manure was all wasted. If they wanted to increase their profits by obtaining larger crops at a diminished cost, let them have covered yards for their cattle (expressions of dissent). This was a question which Essex had yet to learn, but he was certain she would learn it. If they were men of business they would study the question, and not be blinded by prejudice. Another point in which he thought Essex was rather deficient was in the unfortunate belief that those strong non-calcareous clays which were called loams were unfit lands to be drained.

Mr. GWYNNE: You have gone into that question so often, M. Mechi; don't go into it again.

Mr. MECHE: Don't you believe they ought to be drained?

Mr. GWYNNE: We had gone into the question so often that we shall be better without it to-night.

Mr. MECHE: I speak from facts, because I have had experience, and I can only say that the belief that drainage is of no use on such lands is a very fatal deduction from the profits of the farmer.

Mr. GWYNNE: In your opinion.

A scene of confusion here ensued, during which there were cries for Mr. Mechi to "go on," and counter cries of disap-

Mr. WAKELIN calling out, "We can't listen any longer, we have had enough of your 'gab' already."

The CHAIRMAN: I hope everybody will give Mr. Mechi a fair hearing.

Mr. MECHE continued: One of his neighbours, who had been his greatest opponent on this drainage question, had been converted to a different way of thinking.

Mr. WAKELIN: I should like to have his name.

Mr. MECHE: I do not wish to disclose his name, but he does not live half-a-dozen miles from here. I think this is a question which ought not to be left to after-dinner discussion, but ought to be looked into practically. If the farmer would say, "I will try a portion of a field, and experimentalize on the question," they would prove it by results.

Mr. GWYNNE: It has been done already. We have plenty of fields in this neighbourhood that we can point to.

Mr. FAIRHEAD: Cut it short, Mr. Mechi. You have got some good head-pieces here.

Mr. MECHE: If I had a jury here and they were to hear such opinions as those you now express they would say the farmers of Essex are not men of business.

Mr. GWYNNE: Perhaps not.

Mr. MECHE said he was there to speak the truth as he had proved it, and not simply to give opinions. He advocated the advantages of drainage, and urged the importance of deep tillage. He asked them to come before him with fact, but not to oppose him with anger, because he had the welfare of the agriculturists at heart in all he said.

Mr. GWYNNE said he could name two farmers who had cultivated after Mr. Mechi's system, and who were prepared to state that the results were opposite to Mr. Mechi's opinions.

Mr. GOLDEN FAIRHEAD had the highest respect for Mr. Mechi, who gave important lessons to the farmers by his experiments, but they profited more by avoiding what Mr. Mechi did than by following his example, and the more Mr. Mechi let his farming to his men the better results would he have. He (the speaker) knew there were some lands that would not stand ploughing more than three inches deep, while others could not be ploughed too deeply; and he had some fields which he would not allow Mr. Mechi to drain if he would do the work for nothing.

At Harlow Sir H. T. SELWIN-IBBETSON said: In building cottages I should like people to feel that they were not building them with the view of getting direct remuneration out of them, but that, by improving the class of labour they placed upon their land, they were really benefiting themselves in the long run. I am quite satisfied that if we could provide proper habitations for the labouring population, if—another crotchet of mine—we could scatter those houses a little more about the farms, instead of congregating them together, too often at long distances from the centre of work, we should be doing much towards solving a very difficult question. Modern days have shown us that this feeling is abroad. Attempts are being made here and there to carry out some such principle as this. The results that have attended those steps have, in every instance that I have had any experience of, been satisfactory; and I believe now, that the example is set, it will spread. When you get a really good useful servant as a labourer, living close to his work, able to give you all his energies, instead of exhausting them in coming to your service, we shall realise the motto I see on my left, that "Nothing is denied to well-directed industry."

NOTTINGHAMSHIRE.

At Greasley, Mr. FOX said it was a question whether corn rents would act well between landlord and tenant in the Midland districts. He thought it would cause more dissatisfaction than the present system of rental. His belief was that the landlord was foolish if he fixed more rent than could be paid by a reasonable tenant, and the tenant was foolish if he gave more than he thought he could afford to pay. He had always objected strongly to open valuation. If a person was sent as valuer on a farm the landlord's instruction should be, that if he found the farm above the original condition in consequence of the improvements made by the tenant, the tenant should be allowed to have the difference, and if he found the farm was not up to the mark owing to the tenant's negligence in common honesty, that farm ought to be put up to what a good farmer could make it pay under reasonable management. General valuations must be productive of evil results unless instructions of this kind were given.

LANCASHIRE.

At Ecclestone, Mr. G. A. DEAN, the chairman, said: Mr. Professor Rogers, of Oxford, at a political meeting at Birmingham, did farmers the honour of saying that their heads were as hollow as the turnips they grew. Now, I want to do my best to show Professor Rogers that he is very greatly in error in making such a statement; and for that purpose I have brought out a root, one grown on Cartford Farm, and here it is. (The chairman at this point held up a very fine and large turnip, which created much laughter amongst those present.) There's nothing hollow about that. That turnip I intend to send to Professor Rogers for him to see whether it is hollow, and also to compare it with his own head (loud laughter). I was reading some time ago of a professor—perhaps it was Professor Rogers himself—who was suffering from rheumatics, and he called in another professor—a brother professor—to try and cure him of his rheumatical complaint, and he (the brother professor) adopted the rub-and-tap system. This professor of the rubbing-and-tapping principle attended his brother professor, and rubbed him from head to foot, and then commenced tapping. A friend was standing by looking what he was doing, and when he came to his chest, and after rubbing and tapping it, the friend said, "Why, bless my soul, how hollow it sounds!" "Yes," replied the other, "it does, but wait till I get to his head, and then you will see how hollow it will sound" (renewed laughter). I should not at all wonder that the head would be found to be just as hollow as Professor Rogers's (great laughter). I can only say that, so far as this stupid remark made use of by Professor Rogers with respect to farmers' heads is concerned, it is all trash, and I much regret that such absurd statements should have been made by anybody. Whoever heard of a Lancashire farmer having a hollow head? Let any one attempt to buy a horse, or to buy grain from a farmer, and they will not see any hollowness about his head then. The farmers are a class of men of great intelligence; and if I can only induce Professor Rogers to come here next year, I am sure he will make an ample apology for the remarks he has made.

HERTFORDSHIRE.

At Hertford, the Hon. H. COWPER, M.P., said: There was one person above all whom he expected to see there, a gentleman who had been writing some letters in which the three gentlemen who had the honour to represent Mr. McGeachy, and the member for the borough of Hertford, were peremptorily summoned to meet him at that meeting and be examined by him as to their opinions on the game laws. When a man was called out he believed he had the melancholy privilege of selecting the place and time of meeting. Mr. McGeachy not only challenged them, but in the most peremptory way insisted upon that occasion and that place for their meeting. He was very sorry Mr. McGeachy had not gone there, though probably by the rules of that society they would not be allowed to gratify him in discussing to the extent he might desire, that most difficult question. Although he had adverted to that question which so closely affected the farmer he was not going to discuss it. On that question which affected the farmer and the landlord in the first instance (he did not mean to say it was to be settled by them alone, but it affected them in the first instance), Mr. McGeachy had the pull of them, for he was neither the one nor the other; and from that point of neutrality Mr. McGeachy was able to address himself to the subject in a calm and intellectual manner.

Mr. H. R. BRAND, M.P., congratulated them upon the energetic action lately shown by the Privy Council with respect to the importation of cattle; and he believed there should be a feeling of security when energetic measures were taken to show that the authorities were determined to prevent the recurrence of such a plague as the rinderpest. The mutual object of the representatives of that county was to advance the interests of the agriculturists; and that could be best done by there being a mutual understanding between all classes of the agricultural world. When there were grievances to be remedied they could not be remedied by violent means, nor by forcing humiliating concessions; nor in any case could a remedy be gained, as had lately been attempted, by bringing questions of a kind calculated to arouse differences of opinion before those meetings. Mr. McGeachy was a gentleman for whom he entertained the greatest respect, but he

hoped that gentleman would find a better opportunity of discussing the Game-laws than dinners of that kind.

Mr. FAWCETT thought it would be a great advantage if members for the county were allowed to speak on any matters they thought would be likely to interest or benefit the meeting. They had in this county the largest number of most respectable landlords, both owners and occupiers, of any county in England. And yet they had, connected with all these advantages, the most miserable county show that could be seen in all England. When he saw the names both of Lord Dacre, Mr. Ames, and hundreds of others, he was perfectly satisfied that the owners and farmers only wanted to have matters placed in a proper light before them, and they would support it, so that the Hertfordshire county show should be second to none in England. He would show them many reasons why there should be alterations. The Society was bound hand and foot with restrictions. There was scarcely a prize offered but was bound with foolish and contemptible restrictions. And the money is so divided there is no prize worth competing for. In one class there were 14 premiums; they would find nothing of the sort in any other society; they didn't give a single £20, £40, or £50 prize open to all England. They offered a prize for male animals, but put such restrictions on it that no man in his senses would think of sending good animals to the show. Look at their description of a tenant farmer! They say a man is not a tenant farmer if he does anything else; that is to say, he is not fit to be a tenant farmer if he is connected with agriculture and commerce; did they not find that some of the most honourable, honest, and straightforward men were connected with commerce? And yet, if they find one of these men taking a large farm they tell him he is not a tenant farmer. Thus they drive members away.

MIDLAND AGRICULTURAL SOCIETY.

MEETING AT ALFRETON.

This was the best exhibition the Society has ever had. The cattle were particularly good, and the milking and in-calf classes especially so. The landlords' class of milking cows and the tenants' in-calf class were, as a whole, highly commended by the judges. The bulls were few in number, and were not above an average in quality. The sheep classes were not very well filled. The rams were good, and the others about an average show. The pigs were excellent, and would have done credit to any showyard, though some of the classes contained but few entries. There was a superior show of horses; and those shown in pairs, which had ploughed in the match, were a capital lot. The three pairs in the landlords' class were fit to compete anywhere, and those of the tenants were little inferior. It is worthy of remark that the two pairs which took first and second prizes in this latter class were under three years old, and beyond their actual merit gave good promise for the future. The show of cheese was good; and the first-prize cheese was cut for dinner, where it had to compete with a cheese from the Derby factory. Both were rather new; but the better judgment gave the preference to the factory cheese, though some preferred that of Mrs. Shutes. The roots were a very good collection for the season. The swede turnips were, as a class, highly commended by the judges, and would compare with advantage with the swedes shown last week at Derby. The white turnips were very little inferior to the swedes. One of the chief attractions in the showyard was Mr. Gilbert Murray's model of the Cheese Factory Working Plant, as introduced from America by Mr. Schermerhorn, with a vat improved and a press invented by the exhibitor. The model was the object of constant examination. The funds of the Society not being sufficient to offer premiums for implements, the judges were unable to award to Mr. Murray any substantial expression of their appreciation.

The judges were—for stock, Messrs. J. J. Rowley, J. Faulkner, and J. Nuttall; for ploughing, Messrs. S. Chadwick and J. Parker; for roots, Messrs. W. Hollingsworth and T. Stendall; for cheese and butter, Messrs. T. Rodgers and T. Bland.

THE CENTRAL CHAMBER OF AGRICULTURE.

The Council resumed its monthly meetings at the Salisbury Hotel, Salisbury Square, on Tuesday, Oct. 4, under the presidency of Colonel Tomline, M.P.; but the attendance was very small, there not being in all twenty members of Council or deputed members present; the company was, indeed, mainly made up by the reporters, although, as Mr. Neild says, many of these gentlemen do not take much note of the proceedings.

The Chairman, in opening the proceedings, observed that the principal business before the Chamber was the reception of the report of the committee on local taxation. That, he remarked, was a subject of the greatest interest to them. The agitation of the question had gone on quietly and steadily, and he was glad to see in one of the newspapers the report of a speech respecting it, delivered by a borough member at Whitehaven, which was exceedingly good, altogether in the sense in which the Chamber viewed the matter, and which was received with great applause by the constituency. This showed, he thought, that the Chamber was not acting *ex parte* in what it was endeavouring to do; and he believed that if county members would only see that what was asked for was no more than just and fair, and that their constituents had a deep interest in it, a favourable conclusion would more speedily be arrived at.

The secretary read a communication from the Cirencester Chamber relating to the collection of cattle disease statistics by the addition of another column to the Board of Trade Returns. On being applied to, that department stated that it would be easy to add a column for the purpose, in case the occupiers desired it.

Mr. NEILD observed that the business committee had fully considered the matter, and had come to the conclusion, seeing the way in which agricultural statistics were being handled in certain quarters, that it would be inexpedient to take action upon it at present.

The Chamber approved of this decision.

In the absence of Sir Massey Lopes, the Chairman of the Local Taxation Committee, Captain CRAIGIE submitted the Committee's report, which, alluding to the meetings held at Taunton during the Show of the Bath and West of England Society and the Royal Agricultural Society, said that the report of the committee published in August, giving an account of its proceedings since its formation, had been sent to the various provincial Chambers of Agriculture, and a letter from Sir Massey Lopes, directing attention to the importance of the subject, and asking for contributions, had, together with a copy of the report, been sent to the landowners in most of the counties in England and Wales through the local agents of the committee; but, owing to the committee not having been able to obtain local agents in a few counties, the landowners in these had not as yet been applied to. The committee suggested that members of the Council and of provincial Chambers should send to the secretary the names of those in different counties who, in their opinion, would be willing to take an active interest in the subject. "In conclusion," said the report, "the committee cannot help feeling that the movement in favour of a reform of the existing inequalities and injustice of the present system of local taxation is spreading, and they are sanguine that an increasing interest is being felt, not only amongst those who are connected with land, but also amongst the heavily-rated inhabitants of large cities and towns; but the committee would, nevertheless, press upon the members both of the Central and provincial Chambers the great necessity that exists for keeping up this interest if any large and useful measure of reform is to be obtained."

Mr. T. WILLSON moved that the report be received and adopted; and the motion was seconded by Mr. NEILD, who remarked that there was matter in the report which came home to the heart and the judgment of every ratepayer in England, and that steps ought to be taken to give it the widest circulation. The Chamber was greatly indebted to some of the weekly papers, and especially *Bell's Weekly Messenger* and the *South Lanc. Express*, for publishing its proceedings;

but he regretted to find that the daily press of the metropolis was exceedingly remiss in this part of its duty, and seemed to stand aloof from the Chamber as if it did not wish to touch agricultural subjects. It was from London that the provinces took their cue, and the London press might be made an important instrument in disseminating information on the question of local taxation. He believed that the day was not far distant when it would be made the battle-cry of parties at every hustings, and he earnestly hoped that the farmers would refuse to vote for any candidate until they knew what were his sentiments on local taxation. Local taxation and the malt tax were the two subjects on which the opinion of the country would be pronounced at the next general election; and if the county voters did their duty, he had no doubt both questions would be settled in a satisfactory manner.

The motion was agreed to.

Mr. H. GENGE ANDREWS proposed a vote of thanks to Sir Massey Lopes, M.P., and the 89 members of the House of Commons who voted for limiting the charge on the poor-rate assessment for elementary education to one penny in the pound. The best place for agitating the subject of local taxation, he observed, was the floor of the House of Commons; for the speeches and motions made there the daily press was bound to report more or less fully. The first division in the House on the question referred to in the motion was taken on the proposition of Sir Massey Lopes to reduce the contribution of the poor-rate for elementary education to a penny in the pound. He (Mr. Andrews) did not approve of paying even so small a sum as that out of the poor rate; but he could not ignore the fact that, in the House of Commons, if the sympathy of any considerable body of members was to be enlisted in support of any object, gentlemen were obliged sometimes to propose what they did not, perhaps, entirely approve of themselves.

The motion, having been seconded by Mr. WEBB, was adopted unanimously; and the secretary was instructed to transmit a copy of it to Sir M. Lopes, and the other gentlemen who had voted for his motion.

Mr. ANDREWS wished to draw the attention of the Chamber to the fact that an important movement was on foot in the city of London for the establishment of a national poor-rate. He then read the following paragraph on the subject, which had appeared in some of the public journals: "National Association for the Equalisation of Poor-rates.—This association, the president of which is the Right Hon. the Lord Mayor (R. Besley, Esq.), held a committee meeting on Tuesday last at the Westminster Palace Hotel. A letter was read from Lord Alfred Churchill stating his consent to become one of the vice-presidents; also letters from gentlemen in various parts of the country approving the objects of the association. The meeting resolved to take vigorous action, and the secretary was directed to lose no time in lodging petitions for public signatures in the London districts as well as in the provinces, also to hold public meetings throughout the metropolis and the country, so that by that means, and the aid of the Press, the great inequalities of the poor-rate may be clearly shown, and the object of this association, a national rate, brought about." He suggested that the Secretary of the Chamber might open communication with this association for the purpose of ascertaining whether the two bodies could co-operate in the work of accomplishing the common object they had in view.

Mr. NEILD regarded any movement of that kind with favour, inasmuch as it was very much in harmony with the object which the Chamber had at heart; but at this early stage he deemed it better not to open official communication with any other society.

Mr. H. WILKS concurred with Mr. Neild in this opinion.

Mr. ANDREWS explained that he merely wished to inquire what the objects of the association exactly were, and if they were strictly in accord with those of the Chamber.

Captain CRAIGIE said that at the meeting of the local taxation committee on the previous day, the feeling was expressed

that the secretary of the committee might ascertain what the association really aimed at; and with that he thought the Chamber might rest satisfied for the present.

The matter was then dropped.

It was next agreed that the first subject for consideration at the council meeting in November should be the new regulations of the fire insurance offices for the insurance of farming stock; and that at the same council meeting the question What further regulations for the home and cattle trade are required in the interest of producers and consumers? should also be considered.

The Secretary read the report of the joint committee on weights and measures, which had been previously published.

Mr. WILES contended that, as the question at issue was a large one, its ramifications extending to every section of the population from the highest to the lowest, the richest to the poorest, and as the report proposed to wholly unsettle the existing system of weights and measures, before the Chamber sanctioned the proposal contained in the report the sense of the provincial chambers should be taken upon it. It seemed to him that the Committee had mixed up in some confusion the question of uniformity of weights and measures with that of their use, and that their recommendations were impracticable. He moved, therefore, "That the report of the Joint Committee on Weights and Measures be remitted to the Provincial Chambers, with a request that they will consider and *resolve upon* the same prior to the council meeting in February."

Mr. RELPH reminded the Chamber that at a former council meeting it adopted a resolution on the subject which did not agree with the recommendations of the report. What weight, then, could they expect the daily press or the public

to attach to their proceedings if, having come to a definite resolution on an important question, they afterwards in the same year resolved to "consider" it? The effect must be sadly to puzzle the agricultural mind.

Captain CRAIGIE concurred with Mr. Wiles in thinking that the Chamber could not then arrive at a resolution on the report, because the meeting in October was necessarily a very small one, and the subject had already been considered and a determination come to which the report certainly tended to upset. On the 2nd of November last the Chamber expressed its approval of the central. The resolutions it adopted were that in the opinion of the Council all agricultural produce should be sold by weight only, and that the central of 100 pounds should be the standard; and these resolutions were ordered to be remitted to the provincial chambers for future consideration. Therefore the decision in favour of the central was not in the nature of a final and an irrevocable one. Hence the necessity for asking the provincial chambers now to consider the matter in all its bearings, and in the light of this report. Nothing could be more inconvenient or cumbersome than the present system of weights and measures. It was universally admitted that a uniform system was desirable; and if a change was to be effected the question was, "why not let it be such as would put England on a par with other countries in all parts of the world?"

The motion was ultimately agreed to.

The Secretary laid before the Council the resolutions come to by the various provincial Chambers, with the view of obtaining greater unanimity of action between the central and provincial Chambers, but no action was taken over this matter.

EAST SUFFOLK CHAMBER OF AGRICULTURE.

A meeting was held at Ipswich, Lord Henniker in the chair, Mr. CORRANCE, M.P., moved the adoption of the report of the Local Taxation Committee of the Central Chamber, which had been circulated. It was two years since he addressed the chamber upon this question, and since that time some progress had been made, but the fact that so long a period had passed without bringing them much nearer the question was one that required some explanation on his part. It was satisfactory to know that both in and out of the House of Commons the question had not been a party question. They had never yet been fortunate enough to secure the sympathies of any Government on their behalf. He did not say so of this Government more than any other, but they had not obtained the sympathies of the gentlemen who occupied the front benches and who formed, or would form, the Government. Here and there they had had some support, but for the most part those who sat on the front benches stood to a considerable extent apart from the general interests of the country, and, perhaps, of the House—that was, they considered it necessary to be a little behind a growing opinion; for it was not until that opinion had formed itself with some distinctness that any Government whatever felt bound to give effect to it, and perhaps they were right. No doubt there might be some very good reasons for not dealing with the question of local taxation, and, perhaps, some very bad. The good reasons included the extreme difficulty and great intricacy affecting large interests, which were involved in the transfer of large burdens from one class to another, whilst a bad reason would be the necessity, even at the expense of justice, for consolidating their supporters. Those who were agitating this question had to take care they gave the Government no pretext for good reasons, and then they would be able to fight the bad ones. It was his duty to endeavour to place before them what had transpired in the interval which had elapsed since he last addressed them on this point. After two years of considerable pressure they induced Government to give them a recognition to this extent—that the question was one which it behoved Government to deal with at least. Of course it did not go the extent of meeting their views or giving what they should consider a satisfactory answer to the question, but it was a recognition of the question, and had had one practical result—the appointment of a select committee. Such

a committee ought to have had the power to inquire completely and fully into the whole question, and not merely one part of it; and it must give a semblance of insincerity when they found that out of two or three very important points that ought to have been inquired into, one which they thought the most important was left out. The reference to the committee was to inquire "Whether it would be expedient that the charges now locally imposed upon occupiers of rateable property should be divided between owners and occupiers, and what changes in the constitution of local bodies now administering the rates should follow such division." That was only part of the question, and when the committee was appointed Sir Massey Lopes and Mr. C. S. Read expressed great indignation at the terms of the reference and thought it would at once shelve the question. He did not agree with them, because he was persuaded that it would be found utterly impossible to avoid or blink the main issues at stake, and the report of the committee showed that there was some reason for the anticipations he entertained. Mr. Corrance proceeded to point out from extracts from the printed proceedings of the committee that, although unintentionally, it was impossible to prevent reference being made in the evidence to the equity of extending the area on which rates are levied and of placing national burdens now borne by local rates on the national resources. By both Sir M. Lopes and himself resolutions were proposed, expressing the opinion that great hardships were inflicted in consequence of matters for the imperial welfare being supported by local taxation, but they were defeated by the casting-vote of the chairman (Mr. Goschen) on the ground that they did not come within the scope of the reference. Mr. Goschen was, however, by the collective voice of the committee forced, in his draft-report, to propose a clause in which he said that owing to the terms of the reference the committee had been precluded from entering on the enquiry on the relations of local and imperial taxation and the nature of the property liable to the same; that the enquiry on which they had been engaged formed only one branch of the general question of local taxation, and other questions should be previously taken into account in any general measure giving effect to the recommendations of the committee. That was positively condemnatory of the terms of the reference, and of course next session the question

would be asked, why was it that the committee was limited as it had been? At any rate the anticipations he had formed as to what the committee would lead to were to a great extent carried out; and who could doubt after such a resolution that Mr. Goschen's mind itself must have been cleared of any possible objection previously entertained to enter upon the larger portion of the inquiry. The direct reference was to inquire how far it was desirable to divide the charges locally imposed on occupiers between owners and occupiers, and also whether some better constitution in the bodies who now administer the rates could be made. He did not disguise the importance of the question of the division of the rates between owners and occupiers. Sir M. Lopes opposed the division on the ground that it would weaken their forces. At present the occupiers having to pay the rates, the subject engaged their attention; but Sir Massey feared if the government divided the rate between the owners and occupiers, the interest taken by the occupiers would not be so great as at present. The result of a division would, however, be to make the owner conscious of the burden he bears, and at present they had very little support from the owners. The evidence substantiated this fact, that the larger part of this burden was borne by the owners themselves, and it was only in certain parts that it pressed on the occupiers. The division of the rates would relieve the tenant wherever the burden fell directly on him by, before the renewal of the lease, imposing half the burden on the landlord. He did not disguise that some advantages would follow to the tenant, but after all division between the parties who now paid was not the main question; it was, who should pay and what burdens should fall on the collective rate? The poor-rate amounted to half the total local taxation—seven millions out of fourteen, and he did not see how they could alter the poor-rate by division unless they entirely altered the poor-law and did away with the principle on which the poor-law is carried out. They must do away with the guardians' system and appoint a totally different class to carry out the law. This he did not think would be wise, for the occupiers were interested in keeping down the rates; and they knew that before the creation of the Boards of Guardians, through a false humanity, the rates got to be a pound in the pound, and even more (it was so in his parish), and the value of the occupations was thus swamped. Did they want to go back to that? On those grounds he had the strongest objection to any mere division of the burden of the poor-rate unless they were prepared to grapple the larger question that lay behind. In the report, the adoption of which he moved, they were invited to take some steps to carry on the agitation which had existed for two years. He knew some would say, "What action will you take? At present there has been nothing but talking." Well, no man had a greater objection to talk than he if it ended there; and he said let them go into action at once. He admitted that they had at present confined themselves very much to talk, but the ratepayers held it in their hands to promote this action. They it was who were guardians or sent guardians to represent them, and these guardians it was who, subject to Government inspection, control, and suggestion, determined on the expenditure of the poor-rates. The justices were also rating authorities, and the ratepayers had some influence with them, not, perhaps, what they would have if there existed county financial boards, but still they could exercise some considerable pressure on them. Why had not that influence been exercised? He must blame the rate-paying body for supineness on that point, and he said to them, "Don't allow a single addition to be made to the rates. Oppose them in Parliament and out. You make the members of Parliament; if they increase your rates don't give them your votes." He invited them to join in this agitation. It was not a sham agitation. If the object were merely to put money into the pockets of secretaries and officers, or to return members to Parliament, he would have nothing to do with it. He was convinced it was founded upon a sound basis, and he felt he could ask them in all honest sincerity to take part in the task (applause).

Mr. R. L. EVERETT seconded the motion, which was carried.

Lord MAHON, M.P., moved the adoption of the following resolutions recommended by the committee of the Central Chamber:

1. That this meeting protests against the present unjust

exemption of income derived from personal property from contributing towards the various objects for which funds are now raised by local rates, and is of opinion that this grievance affects owners and occupiers of house property in towns quite as much as the landed interest, and therefore that both descriptions of property are equally interested in the removal of this anomaly.

2. That the proposal to divide the payment of rates between owners and occupiers does not afford any efficient relief or remedy for the grievance complained of in the unequal incidence of local taxation; and that no settlement of the question can be accepted as final or satisfactory which is not preceded by a thorough inquiry to determine whether the objects now locally provided for are of local or national obligation.

3. That until the question of local taxation reform has been satisfactorily dealt with this meeting pledges itself to oppose most strenuously the imposition of any fresh rates on the present unjust basis, for such purposes as national elementary education, expenses of election, turnpike roads, emigration, &c.

Mr. CHARLES HAWARD turned the resolutions, which were carried.

The PRESIDENT said he was in favour of local government, for he had seen that when the interest in local management was removed the rates increased. This was the case under the Union Chargeability Act, for he had been told that in some instances the rates had almost doubled, and that showed that centralization of management even to that extent caused a great increase of expenditure. Nevertheless, they might buy their local government at too great a price, and they must not stick to it at any expense. The select committee of last Session were very useful, but to his mind their proceedings had been rather like hunting without the fox. They had a very good pack of hounds with huntsman and horses, but they had not the essential part. In this matter the essential part was to be found in the question "What part of these charges ought to come upon us as purely local burdens, and ought we to bear all these other burdens?" When that question had been settled it would be well to go into details, and settle whether the rates should be consolidated, whether a new system of assessment should be adopted, and many other questions. He was quite ready to admit the advantages of a division of the rates between owner and occupier, but in this instance it seemed to him rather robbing Peter to pay Paul. The extra burden the tenant had to bear was the rates imposed during his tenancy, but on the other hand the burden came on the landlord too. Some time ago a farm in Essex was sold and was valued at £199 ls. a-year, and the rates then amounted to £47 Os. 6d., leaving the rent £152 Os. 6d. Ten years after the farm was again sold, and then the rates had increased, so that the farm was not worth so much. Increase in rates, therefore, cut both ways. Another reason against division was that there was a great advantage in the occupiers managing the expenditure, for they were generally resident and were more intimately acquainted with the wants of the parish than the owner, who could not live in every parish. He had tried to get a return showing the comparative amount of rates in 1843 and in 1868 in his own neighbourhood, to see whether, as was sometimes said, the value of the land had increased in the same ratio as the rates. He had been unable to obtain a complete return, but would quote the parish of Thwaite. It contained 832 acres. In 1843 the property taxed was £1,361, and in 1868 it was £1,457—an increase of 7 per cent. In 1843 the gross estimated value was £1,343, and in 1868 it was £1,468. The poor rate levied in 1843 was £102, and in 1868 it was £159, so that whilst the value of the property had increased 7 per cent. the rates had risen nearly 60 per cent. In the parish of Eye it was different, the rates having decreased somewhat, that being a large parish and the Union Chargeability Act having relieved the rates very much. On the whole, he believed the rates to have increased from 35 to 40 per cent., whilst the value of property had increased from 8 to 10 per cent. They must not forget that by the Turnpikes Act of last year £182,000 was thrown on the rates, and though that might seem a small item compared with the whole amount of local taxation, these additional burdens in the aggregate amounted to a serious sum, and the more there was added to the rates the more difficult it would be to get their claims acknowledged. Therefore they should act promptly, and with that view he moved that a committee be appointed to be called the District

Local Taxation Committee, by whom all special business connected with the question shall be transacted, subscriptions collected and applied to local and general purposes connected with the agitation, and that the council be such committee. Before he sat down he could not but thank Mr. Everett for the handsome terms in which he had spoken of him and the kind manner in which those remarks had been received. He regretted much that the tie which existed between him and the eastern division of the county as their representative had been severed, but un-

happily it was so. All he could say was that his home was in Suffolk, his interests were Suffolk, his best friends lived in Suffolk, and every tie that could connect a man with any particular locality bound him to that county, and he need hardly tell them that he would always be ready to advance the interests of the county though he was no longer their member.

Mr. CORRANCE seconded the motion, and added an instruction to the committee to memorialize and communicate with bodies having the management of local taxation.

FARM INSURANCE.

In July last a correspondent of *The Mark Lane Express* "thought it right that the attention of farmers should be called to the sudden changes made by the Insurance Offices on the mode of insuring farming stock and produce." H. C. C. in his letter went on to say that the "average clause policy" principle was about to be introduced, which was thus explained in the circular he had received: "If the sum insured on agricultural produce and farming stock be (say) £600, and the value of the property at the breaking out of the fire be not more than £800, the whole amount of any loss up to £600 will, as heretofore, be payable. But, if the value of the property be more than £800, then only such a proportion of any loss will be paid by the office as the sum insured bears to the value of the property, *i. e.*, if the property be worth £1,000, then only 600-1000, or three-fifths of any loss will be paid: if the value of the property be £1,200, then only 600-1200, or one-half any loss will be paid, and similarly in any other case where the sum insured is less than three-fourths of the value of the property." Our correspondent asked, upon this, whether it would be fair to apply such a system for mercantile insurances to farming stock, as the changeable value of the stock must require a constant alteration of the policies, of which he proceeded to give certain illustrations in the different prices of hay and corn at different periods, while he added, as "a well-known fact, that for eight or nine months of the year the farmer rather over-insures than not." He argued further that the offices should not have combined as they had done "without consulting their customers or obtaining any information or suggestions from them."

If H. C. C. might be assumed to speak on behalf of the farmers, CORRECTOR, who answered him through our columns in the course of the next number or so, should as certainly be representing the offices. This gentleman maintained how that, "After all there is little new in the regulation complained of, but it clearly shows the insured what he has to depend on. For many years the first question put to a farmer has been whether the sum he proposes to insure is at least equal to two-thirds of the value of all the property immediately after harvest, and if he has not distinctly answered in the affirmative his proposal has been declined. Now, the law is that any contract founded on a misstatement is invalid, and if the Insurance Companies had been strict they would have disappointed many who have made claims upon them; but more than this, as a caution to the insured, a clause to that effect appears on every policy." The concluding paragraph of this second letter on the subject was still more emphatic in its tone, as foreshadowing some still further consequences: "For years farming stock insurances have been so unprofitable that offices have declined to accept proposals from those who have not insured other property with them. It is hoped that the rule now to be enforced will render an increase of rate unnecessary; but if the farmers will not exercise more care when thrashing by steam, will put their ricks so close to each other that, as in a recent

case, twenty-seven can be destroyed by a single fire, and do not check the use of tobacco and lucifer matches, an increase of rate will be unavoidable."

We have quoted thus much from our own columns of some three months since, because this embodies the points of the very useful inquiry which has just taken place in Norfolk. On the face of it the offices have clearly something of a case. Mr. Bignold says at Norwich, as CORRECTOR said in his letter, that farming stock does not pay, and that on such insurance "there had for the last five years been a positive loss throughout the whole country." Now as a matter of business, as a commercial transaction, it is very evident that such a state of things could not go on. The more custom the agents obtained in this way the more certainly would the Companies go to the bad. The very natural solution of the difficulty would seem to be that the rates should be raised, though on closer examination any such step is scarcely required, at least for the present. As a rule it is maintained that the farmers do not insure their property to a sufficient extent; in a word, as a class they under-insure, whereas the effect of this new regulation would be that they must as habitually *over-insure*. The produce that they care chiefly to guard against risk is for often a comparatively brief period in their yards and barns, and then carried on to their credit in the bankers' book. And yet, according to the action of the average clause a man should be insuring his hay-ricks and wheat-stacks all the year round. Does a merchant pay the full premium on a vessel lying idle in dock precisely in the same degree as if she had her cargo aboard and were outward bound? And yet in the case before us it looks very much like ordering a man to pay a full premium on empty bays and skeleton saddles. If this principle is to prevail it would be rather only fair that the farmer should be continually striking his average, or, if that would be vexatious and impractical, that he should make an estimate on the whole year's risk and not on the actual risk of property at one particular period. As Mr. Brown, of Marham, so well put it in his speech at Norwich: "I say that in the case which I have assumed an insurance of £2,000 is ample. And I will tell you why. I have shown that the risk of fire at the time of insurance only amounts to £5,000; before Christmas that risk will be reduced at least one-third, say to £3,000; by Lady-day it will be reduced three-fourths, say to £1,000; and by the 1st of June, just before the hay crop is secured, it will probably be reduced to £500. Therefore, an insurance of £2,000 would represent more than the average risk, and yet we are informed that to entitle such an insured person to recover the full amount of any loss he may sustain by fire he must insure for £6,000." Still, against all this there is the ugly fact that the insurance of farm stock does not pay, though it may be as well to keep as closely as we can to the case before us. Mr. Sewell Read then says on the contrary that it does pay. "I make this challenge to Captain Bignold—and I have

pretty good authority for it—*fire insurance on farm produce in Norfolk does pay.*” And Captain Bignold comes to admit as much, while it appears that his Company has been drawn into the new regulation by the other offices; and H. C. C. in another letter, which we give in to-day's paper, “fears that the united and combined insurance offices will care but little for reasons or arguments. They have the power, and will use it.”

The farmers then will simply have to grin and bear it. They can only, as they said at Norwich on Saturday week, “regret that the Norwich Union Office directors, after consideration of the question and conference with the committee, have determined to adhere to the average clause, which this Chamber considers unfair to the agriculturists of Norfolk.” But this is not altogether the impotent conclusion arrived at. The story does not after all end here. In a letter which Mr. Brown has addressed to his brother-farmers—that we give amongst other correspondence on the subject—he says an extraordinary general meeting of the King's Lynn Insurance Society is about to be called with the object of changing the name and character of the Company, and that he himself and Mr. Sewell Read have already effected insurances in that office *without the average clause*. Surely this is a very legitimate and encouraging proceeding. Where the insurance of farm produce does not pay, the farmers may have to submit, willy nilly, to these new regulations; but where it is admitted that it does, they should surely have been consulted rather than have been handed over so cavalierly at the bidding of those with whom they have no concern.

INSURANCES ON FARMING STOCK.

TO THE EDITOR OF THE MARK LANE EXPRESS.

SIR,—I was pleased to read the report of the meeting of the Norwich Chamber of Agriculture, in your Paper of the 3rd, on the Insurances of Farming Stock and Produce. The opinions I ventured to offer in your Journal in July last were at Norwich more forcibly and clearly expressed, and I for one am thankful to the chairman and his fellow members for their exertions to obtain redress; but I fear that the united and combined Insurance Offices will care but little for reasons or arguments: they have power, and will use it.

Allow me to give another instance of the working of their tariffs: We all know that a travelling steam thrashing machine may work in a rick-yard filled with stacks of all kind, for days together, and no extra rate or premium is required; but if that same engine be taken *outside* a massive stone-built *water mill*, and be used by means of a band to assist in grinding, in time of drought, the rate of premium will be at once raised from 4s. or 5s. per cent. to 18s. or 20s. per cent. I am aware that in large towns and ports the mills are chiefly worked by steam power, and that some of the operations, such as shelling, &c., are hazardous, and need a high premium to protect the offices from the increased risk; but I really cannot see the justice of charging the poor little country water mill, occasionally using a travelling steam engine, at the same rate as the extensive building where steam is constantly employed and hazardous processes carried on. Perhaps your correspondent “Corrector,” will kindly explain this for our benefit. I am, sir, yours very obediently,
H. C. C.

[The following letter has been forwarded to us by Mr. Brown.]

BROTHER FARMERS,—At the meeting of the Norfolk Chamber of Agriculture, on Saturday last, I should much

have liked to have proposed a resolution to the following effect: “That this Chamber recommends the formation of a new Insurance Company.” I was prevented doing so, because I had been informed that it would take at least six months to establish a company. As time would not permit of such a course being taken, Mr. C. S. Read and I decided to effect an insurance with the King's Lynn Insurance Society; without the average clause. We have done so—he at the rate of 5s. per cent., in four separate amounts—I, at 6s. per cent., in one amount.

I am authorized to state that an extraordinary general meeting of the shareholders of the King's Lynn Insurance Society will be at once called for the purpose of changing the name of the Company to a more general name, to open an office in Norwich, largely to increase the capital, that a fair proportion of practical farmers shall form part of the Board of Directors, and that the rates of premium will vary according to the risk; in fine I am justified in believing that such alterations will be made in the constitution of the Company that it will command the confidence of farmers as well as of the public generally.

I can only plead the urgency of the case as my excuse for thus addressing you. I do not presume to counsel you; but, as I was unable to propose the formation of a new Insurance Company, I thought it right to inform you of the course which Mr. C. S. Read, I, and others have adopted. With the utmost respect,

I am, Brother Farmers,

Faithfully yours,

Marham, Downham Market,
5th Oct., 1870.

T. BROWN.

TO THE EDITOR OF THE MARK LANE EXPRESS.

SIR,—About five years since, nearly all the principal offices in London, and country too, bound themselves to charge for all insurances at one uniform rate of premium, without noticing any special hazard or risk or the absence of it. These offices fixed a “tariff” or scale of charges, and they are called “tariff offices.” By this the risk on *farm buildings*, even when of brick, tiled, stone, or slated, *i. e.*, “*common risk*,” was raised from a premium of 1s. 6d. per cent. to 3s., thatch buildings remaining, as before, at 4s. 6d. No reason was given for the change except that farm insurances *did not pay*. It may fairly be asked how it is that such splendid dividends are paid by these offices, and why it is so difficult to buy shares in any of the old offices, but that they are monopolies, and the directors dislike to be disturbed? I think it is not fair in farming stock policies to make those in quiet districts pay so much as those where discontent exists so strongly, and *stack firing* is so prevalent. I have been an agent for twenty-five years, and have often tried to reason with the officers on these things, but without avail: they have the power, and will use it. Mr. C. S. Read's remarks were very sound and practical. I enclose you a copy of the new rules, and also of the list of questions to be answered by the “Unfortunate Agent” as to character, &c.

Yours truly,

Oct. 7.

A COUNTRY AGENT.

HEXHAM FARMERS' CLUB.—Subjects selected for discussion: Oct. 11, Lime, Mr. W. F. Catcheside, F.C.S.; Dec. 13, The Commercial Aspect of Agriculture, Mr. John Hope, jun. 1871—Jan. 10, Local Taxation, Mr. T. P. Dods; Feb. 7, The Importance (Nationally) of Compensation to Tenants for Unexhausted Improvements, Professor Wrightson; Mar. 14, On Increasing the Facilities for the Education of Farmers' Sons, Rev. Canon Dwarris, M.A.; Apr. 11, Feeding in its Relation to Cropping, Mr. J. J. Harle, hon. mem. R. A. S.

THE TRIALS OF DOUBLE-FURROW PLOUGHS AT PETERBOROUGH.

The question of double-furrow ploughs is just now attracting a large share of the attention of the agricultural world, and several Societies are instituting trials, and offering prizes, to encourage manufacturers in their efforts to work out the problem. The subjects is not a new one, as the idea is at least fifty years old. We may therefore be asked, What has now given the matter such an impetus? The answer will be found in the great improvements lately made in these ploughs; and in the fact that merit is sure in the present day to be recognised and brought under public notice, through the instrumentality of our numerous agricultural Societies. The fact that such firms as Messrs. Ransomes of Ipswich, Howard of Bedford, Fowler of Leeds, and other leading engineers have taken up the question, is a sufficient guarantee of its practical value; but there are certain obvious advantages in the system of double-furrow ploughs which at once strike the most casual observer. In the first place there is clearly a saving in manual labour: one man alone required to work a double-furrow plough is doing twice the work he would be able to do with a single plough. With regard to horse-power the saving is not so striking; some makers state that there is a saving of 25 per cent. in draught; others, that there is none at all: the truth probably lies between these two statements; but it is important to remember that, where a single-furrow plough would only require, say, one-and-a-half horse-power, as frequently happens, two horses must be used; while a double-furrow plough would be worked with three horses and doing twice the work.

The system which appears to have made the most way is that known as "Pirie's" patent, taken out about four years since, in which a frame, carrying two plough bodies, is suspended on three wheels, two of which run in the furrow, thus dispensing with both soles and land sides, friction being diminished by substituting a rolling for a sliding motion. It has no handles, but relies only on the steerage arrangement of the front wheel to guide it both in work and when turning at the ends. Some of the more recently-designed ploughs have somewhat similar modes of effecting these objects, while retaining the old-fashioned handles; as, for instance, Messrs. Howard, which has the power of steering with both front wheels, and Messrs. Ransomes, that has a very clever plan for turning at the ends, and raising the plough clear of the ground by the same action.

A very interesting trial of double-furrow and turn-wrest ploughs took place on Tuesday and Wednesday last, on the estate of the Duke of Bedford at Thorney, under the auspices of the Peterborough Agricultural Society. The judges were Mr. J. Hemsley, of Shelton, Newark, Notts; Major Grantham, of East Keal Hall, Spilsby; and Mr. Joseph Martin, of Littleport, Ely—eminently practical men; and the dynamometer tests were conducted by Mr. Amos, consulting engineer to the Royal Agricultural Society, every care being taken to arrive at reliable data.

The prizes to be competed for were divided into two classes. Class I. "For the plough which shall produce the best and most highly finished work; due regard being had to lightness of draught, strength, and simplicity of construction."

Class II. "For the best general purpose plough; due regard being had to lightness of draught, ease, and economy of management, strength, and simplicity of construction,

£20 was placed at the disposal of the judges, to be awarded at their discretion, in the two classes. The sum of £5 was also placed at the disposal of the judges for the class of turn-wrest ploughs.

The following makers competed—viz., G. W. Murray and Co., Bauff, N.B.; W. P. Underhill, Newport, Salop; John Cooke and Co., Lincoln; Vickers, Snowden, and Morris, Doncaster; John Fowler and Co., Leeds; J. and F. Howard, Bedford; Thomas Corbett, Shrewsbury; Ransomes, Sims, and Head, Ipswich; Hunt and Pickering, Leicester.

Messrs. G. W. Murray and Co.—The double-furrow plough of this firm is on the "Pirie" system, with various improvements of their own. It consists of a frame having two parallel sides, each carrying a plough-body. To alter the width of furrow the frame is expanded or contracted in a ready manner, without affecting its rigidity. The steering is done by means of a lever from the front-wheel, while a supplementary lever, peculiar to this implement, gives the ploughman the power of regulating with precision the depth of the furrows, and of lifting the plough over obstructions. The depth of furrow can be changed while the plough is in motion, by means of a lever, on which the land-wheel is fixed. Wedges have been substituted for screws in the adjustment. Price £11 11s. This implement appeared well constructed and simple. It did very good work, and was worked by an ordinary farm-labourer. This firm also exhibited, at work, a combination of a super and subsoil plough, the peculiarity of which consists of the front mould-board being removable, and a subsoil body fastened in its place. The change can be made in a few minutes. It worked very satisfactorily, subsoiling to a depth of 12 inches, and turning a furrow 6 inches deep, drawn by four horses. There was no prize offered for this class of implement, but its merits were evidently recognized by large numbers of the agriculturists present.

W. P. Underhill.—This double-furrow plough is of a simple construction, in which no special arrangement is made for steering. Price £5 10s.

Messrs. J. Cooke and Co. competed with a double-furrow plough of the simplest possible construction, having a beam and handles of wood, and using soles and land sides; the work done by this plough was very good. Price £7 10s.

Messrs. Vickers, Snowden, and Morris.—This plough is also of simple construction: it has a wheel quite in front worked by a lever, conveniently placed to enable the ploughman to raise the plough out of work. Price £8 10s.

Messrs. John Fowler and Co.—This plough is on the "Pirie" system, the frame is triangular, and the alteration of the width of furrow is made by sliding the hinder plough body backwards or forwards. Mr. T. Perkins, of Hitchin, has made considerable improvements in this plough, greatly adding to the convenience of its management, the value of which was recognized by the judges, who awarded a Fowler plough, improved by Mr. Perkins, the second prize in Class II. These improvements consist firstly, in so coupling the front and hinder wheels that, when steering, they turn in opposite directions, and so that the two ends of the plough swing round as on a centre; secondly, in a plan for locking and unlocking the land wheel, so that when at work it remains rigidly fixed to the plough, and when out

of work it is free to turn as a castor, and lastly, by merely pulling down a lever, both sides of the plough are raised clear of the ground, while the advantage of raising and lowering the land-wheel during the progress of the plough is still retained. This implement did excellent work, and the facility with which it was managed was remarkable. Price, with all improvements, £11.

Messrs. J. and F. Howard.—The double-furrow plough by this firm is an exceedingly well-made implement. Besides the ordinary plough-handles, it steers by the turning of the two front wheels; the land-wheel can be raised and lowered to change the depth of furrow, or lift the implement out of work at the ends, while the plough is in motion. The beams which carry the plough bodies are bound together by riveted cross-stays, and they expand, to change the width of furrow, by means of two slides which pass through them; the cross-stays are fastened by clasps, thus the bodies must always keep their relative positions. We understand that this mode of expanding the frame has been patented by Messrs. Howard. The standards of the wheels are short, and, therefore, not liable to be strained. The friction or hinder-wheel runs close in behind the rear plough, thus shortening the distance between the back and front wheels, and allowing the plough to get into its full depth immediately it is set in. This plough made first-rate work, and received the first prize in class II. Price £10.

Mr. Thomas Corbett.—A simple double-furrow plough, having a means of depressing the hind (or friction) wheel so as to facilitate turning. Price £6 17s. 6d.

Messrs. Ransomes, Sims, and Head.—The plough competed with by this firm is clever, and at the same time simple in its construction. The plough bodies are fixed on two parallel beams, which expand to adjust the size of furrow, by means of screws in channel iron guides; it is fitted with a new patent lifting apparatus which throws the plough out of work instantly, and a wheel in the centre enables the plough to be turned in its own length, which is only 10 feet, as on a pivot, with very little help from the ploughman; it is furnished with handles like an ordinary plough, and is very easy of

management. The work done by this plough was all that could be desired; it was awarded the first prize in class I. Price £9 15s.

Messrs. Hunt and Pickering.—This was a well-made ordinary double-furrow plough with a wooden beam. Price £6 10s.

After a severe trial, lasting two days, partly on clover ley, medium soil, and partly oat stubble, light soil, the prizes were awarded as follows:

Class I.—£6 to Messrs. Ransomes, Sims, and Head; £3 to Messrs. J. and F. Howard.

Class II.—£6 to Messrs. J. and F. Howard; £3 to Messrs. John Fowler and Co., for their plough with Perkin's improvements; £2 to Messrs. Ransomes, Sims, and Head.

Messrs. Howard had intended to compete in both classes with the same plough, but this the committee would not permit, and consequently a smaller plough was put on for the highly finished work. Mr. Amos recorded the results by the dynamometer tests, and an attempt was made to compare the draught of a single with that of a double furrow plough, but we doubt whether the comparison can be considered entirely satisfactory, inasmuch as the single plough was not worked with a friction wheel, but with sole and land side. There was nothing calling for special remark in the turn-wrest ploughs, in which class there were only two competitors, viz., Messrs. Howard and Ransomes—£3 being awarded to Messrs. Howard, and £2 to Messrs. Ransomes.

Besides the competition between makers, there were going on at the same time various competitions between ploughmen, including a prize for "the man who shall plough with a double-furrow plough and three horses abreast one acre of land not less than five inches deep setting out two ridges and finishing off one furrow." The work was in most cases admirably done, but as all the ploughs in this competition were by the same maker Messrs. John Fowler and Co., the interest was purely local.

TESTIMONIAL TO MR. ALLEN RANSOME.

Mr. James Allen Ransome, the senior partner of the Orwell Works, having this summer completed his fiftieth year of connexion with the works, the wish was expressed by some of the old hands that it would be a graceful tribute to one who has, by his uniform kindness to those in his employ, won their respect and esteem, if a suitable testimonial could be presented to him in this his year of jubilee, as the expression of affectionate regard in which he is held by all. Accordingly a meeting of foremen and representatives from the offices was held, and it was determined that a voluntary subscription should be raised for the purpose indicated. That the contributions should be spontaneous and free: a box, on the principle of the ballot, was placed in every shop, and into these the men could put whatever contributions they pleased. The result was that 707. was thus contributed, and with this sum has been purchased a testimonial, which took the shape of a very handsome timepiece and set of bronzes. On a gold plate, let into the base, is the inscription:

Presented to

JAMES ALLEN RANSOME, ESQ.,

By the officers and workmen of the Orwell Works and Waterside Works, on the completion of his fiftieth year of business connexion with these establishments, as a voluntary tribute of the esteem in which he is held by the subscribers,

Ipswich, September, 1870.

The following letter accompanied the presentation:

Orwell Works, September 24th, 1870.

J. Allen Ransome, Esq.

Dear Sir,—On behalf of all those employed at the Orwell and Waterside Iron Works, we have the pleasure to request your acceptance of the accompanying timepiece and bronzes, as a mark of esteem and also a memento of the completion of your fifty years' connexion with the works. Believing that the value of the gift will be enhanced in your estimation by a knowledge of the mode in which it has been provided, we enclose a copy of the only notice that was issued on the subject, and which will sufficiently explain itself. Doubtless, had we adopted any means of soliciting subscriptions, or even of making the matter more generally known, the offering would have been of greater intrinsic value, but the object was not so much a costly gift as one which in its execution might be pleasing to your taste, and as a purely freewill expression of our feelings towards you. In thus conveying to you our most hearty congratulations for the past, we desire to express our hope that by the Divine blessing you may be spared for many years to enjoy your important position of senior partner in the two establishments, the blessings of your extended family circle, the respect and esteem of you fellow-townsmen, and the lasting regard of all the officers and workmen of the two firms.

On behalf of the committee and subscribers,
I am, dear sir, yours very respectfully,
(Signed) ARTHUR T. COLE,
Secretary to the Testimonial Committee,

Mr. Ransome returned the following reply:

The Old House, Carr-street, Ipswich,
Sept. 27, 1870.

Dear Arthur Cole,—On my return from the sea-side I find your kind address, accompanied by the magnificent testimonial, with which the officers and workmen have been pleased to present me on the occasion of my having completed the fiftieth year in connection with our establishment. I am deeply touched by this manifestation of the kindly feelings of those who have been associated with you in arranging this welcome and altogether unanticipated surprise, and greatly does it add to my estimate of its value to feel the thoughtful and kindly consideration that has dictated the mode and manner in which your munificent gift should reach my hands, and I trust to you to convey to your associates in this matter my appreciative acknowledgment. Much as I have reason to

value this testimonial for its intrinsic beauty and value, you who have so long known me will scarcely need the assurance that in the affectionate regard of which your testimonial is the outward symbol, I have a deeper and far higher gratification in the recognition it conveys to me of the harmony that has hallowed our mutual relations for so many years, and which during half-a-century has never been broken, nor, I believe, even disturbed. I am sensible that this acknowledgment is but a very feeble expression of my grateful feeling or of my personal gratification, but I trust to its acceptance by you in the fulness of the spirit of mutual regard.

I remain, dear Arthur, yours very sincerely,

J. ALLEN RANSOME,

To A. T. Cole, for the Officers and Workmen of
the Old Foundry and Water-side Iron Works,

BAKEWELL FARMERS' CLUB.

At the twenty-second annual exhibition of this well known Club the entries were more numerous than in previous years, and the monetary value of the prizes having been increased this season was doubtless in some measure the cause of the increased competition, and of a better quality of animals being exhibited. The cattle were remarkably good, especially the milking cows. The bull exhibited by Mr. Kirkham, of Stanedge Grange, and which took the prize for the best animal in the show, was a very fine one. The sheep were scarcely up to last year's show, either in number or quality, with the exception of the rams. The pigs were exceedingly good, especially the two prize pigs. The sow belonging to Mr. Gregory, of Ashover, which carried off the first prize at Derby last week, failed to obtain a prize, and was only highly commended by the judges. The show of horses was excellent, and as is usual at all agricultural gatherings drew a large share of attention. The show of cheese, wool, roots, and poultry was held in the Town Hall. The show of implements was small, there being only a few chaff-cutters, knife-cleaners, and wringing and mangling machines.

PRIZE LIST.

JUDGES.—CATTLE AND SHEEP: Messrs. Frank Smith and Maskery. HORSES: Messrs. Johnson and J. Bland. PIGS, POULTRY, AND ROOTS: Mr. Faulkner. CHEESE: Mr. S. W. COX. BUTTER: Mr. J. Bramwell. WOOL: Messrs. J. H. Willey and Addy. GENERAL REFEREE: Mr. Faulkner.

SHORTHORN CATTLE.

Bull, two years old and upwards.—First prize, £4, J. Kirkham, Stanedge Grange; second, £2, T. Roe, New Inns; third, £1, B. Buxton, Aldwark.

Yearling bull.—First prize, £4, R. Blackwell, Tansley; second, £2, J. Brown, Shatton; third, £1, H. Harrison, Edensor.

Cow, combining in the greatest degree milking and grazing properties.—First prize, £2, J. Kirkham, Stanedge Grange; second, £1, R. Blackwell, Tansley; third, 10s., Robt. Orme, Bakewell.

Pair of cows (of any breed) for dairy purposes, each having had a calf in 1870, and in milk.—First prize, £3, T. Wild, Cold Eaton; second, £2, J. Kirkham; third, £1, G. Gould, Pilsbury.

Shorthorned heifer, three years old and under four, in milk or in calf.—First prize, £2, J. Brown, Shatton; second, £1, T. Wilton, Heathcote; third, 10s., T. Wilton.

Pair of Shorthorn heifers, two years old and under three, in milk or in calf.—First prize, £2, F. Parker, Middleton; second, £1, F. Parker; third, 10s., F. Bramwell, Windmill.

Pair of Shorthorn stirks, one year old and under two.—First prize, £1 10s., L. and G. Furniss, Birchill; second, £1, J. Anthony, Bakewell; third, 10s., B. Buxton, Aldwark.

Pair of store bullocks, one year old and under two.—Disqualified.

Shorthorn bull-calf.—Prize, £1, T. Swann, Hargate Wall.

Pair of Shorthorn cow calves.—First prize, £1, P. Furniss, Ashford; second, 10s., L. and G. Furniss,

Best animal in the yard.—Prize, £3, Mr. Kirkham, Stanedge Grange (for bull).

Milk cow, shown by a cottager holding not more than six acres of land.—First prize, £1 10s., J. Mellor, Bakewell; second, 10s., W. Hallows, Ashford.

Four milk cows out of one dairy exceeding ten cows.—First prize, £3, J. Kirkham; second, £2, R. Gould, Bank Top, Hartington; third, £1, H. Harrison, Edensor.

Two milk cows out of one dairy not exceeding ten cows.—First prize, £3, W. Hodkin, Beeley; second, £2, G. Haddock, Bakewell; third, £1, W. Hodkin.

Fat beast.—First prize, £2, J. Evans, Alport; second, £1, S. Grindey, Friden Farm.

SHEEP.

Long-wooled ram of any age.—First prize, £3, R. Johnson, Kirk Ireton; second, £2, R. Johnson; third, £1, R. Thornhill, Longstone.

Shearling long-wooled ram.—First prize, £3, R. Lee, Kniveton; second, £2, R. Lee; third, £1, C. Mellor, Atlow.

Pen of five long-wooled ewes, which have reared lambs in the spring of 1870.—First prize, £2, L. and G. Furniss; second, £1, R. Johnson; third, 10s., W. Greaves, Bakewell.

Pen of five long-wooled theaves.—First prize, £3, R. Johnson; second, £1, L. and G. Furniss; third, 10s., W. Greaves.

Pen of five fat shearling wethers.—Prize, £2, W. Greaves.

Pen of five long-wooled ewe lambs.—First prize, £1, L. and G. Furniss; second, 10s., W. Buxton, Bakewell; third, W. Greaves.

Pen of five long-wooled wether lambs.—Prize, £1, W. Greaves.

PIGS.

Boar of any age.—First prize, £1 10s., C. B. Speight, Milhouses; second, £1, J. B. Gregory, Ashover. Commended: E. Frith, Calton House.

Sow of any age, in milk or in pig.—First prize, £1 10s., B. Hardy, Ashborne; second, £1, R. W. M. Nesfield; third, 10s., F. Potter, Harthill Moor. Highly commended: J. B. Gregory; M. Walker, Anslow.

Pig, shown by a cottager holding not more than six acres of land.—First prize, £1 10s., T. Noton, Bakewell; second, 10s., L. Mountney, Bakewell. Extra pig.—Highly commended, —Tomlinson, Baslow.

HORSES.

Brood mare and foal of the draught kind.—First prize, £3, T. Travis, Postern Lodge; second, £2, B. Swaffield, Pilsbury Grange.

Two-year-old gelding or filly of the draught kind.—Prize, £2, G. Fearn Baslow.

Yearling colt or filly of the draught kind.—First prize, £2, S. Wilcockson, Brampton; second, G. Gould, Pilsbury.

Brood mare and foal, best fitted for breeding hunters and hacks, but not thoroughbred.—First prize, £2, B. Swaffield; second, £1, R. Cook, Hathersage.

Two-year-old colt or filly not thoroughbred.—First prize, £2, W. Hodkin, Beeley; second, £1, T. Higgott.

Yearling colt or filly not thoroughbred.—First prize, £2,

S. Wilcockson, Brampton; second, £1, T. W. Wager, Glutton Grange.

Pony or cob not exceeding 15 hands.—First prize, £2, J. Swaine, Bakewell; second, £1, B. Buxton, Aldwark. Highly commended: J. O. Openshaw, Bakewell.

Pony not exceeding 13 hands.—First prize, £2, T. B. Trigg, Parwich; second, £1, J. Potter, Middleton. Highly commended: J. Gibbs, Middleton.

Pair of plough horses or mares.—First prize, £1 10s., E. Garton, Lumsdale; second, 15s., J. Archer, Meadow-place. Highly commended: F. Potter, Harthill Moor; commended, E. Garton.

Hunter, to be tested by leaping over hurdles.—First prize, £3, A. C. Hubbersty, Brackenfield; second, £2, F. Gisborne, Bakewell; third, £1 and commended, W. Greaves, Bakewell.

Hunting colt or filly, four years old.—Prize, £2, W. Greaves.

CHEESE AND BUTTER.

Six cheeses, the produce of the farm of the exhibitor, not to be tested in any way previous to the exhibition.—First

prize, £3 3s., M. Nall, Flagg; second, £2 2s., F. Potts, Harthill Moor; third, £1 1s., L. and G. Furniss, Birch Farm. Highly commended: G. Banks, Hartington. Commended: J. Melland, Snitterton Hall.

Sample of uncoloured butter.—First prize, £1, R. Lee, second, J. Hodgkinson, Haddon Grove; third, F. Potts, Harthill Moor; fourth, and extra prize, W. Hodkin, Beele.

TURNIPS.

Eight swede turnips.—First prize, 10s., M. Nall, Flagg second, 5s., J. Archer, Meadow-place.

Eight common turnips.—First prize, 10s., Large Mountney, Bakewell; second, 5s., and highly commended: J. Archer, Meadow-place.

Six cow cabbages.—First prize, 10s., F. Potter, Harthill Moor; second, 5s., W. Gurdon, Bakewell.

WOOL.

Five fleeces of hogg wool.—First prize, £1 1s., L. and G. Furniss, Birchill; second, 10s. 6d., W. Greaves, Bakewell.

Five fleeces of ewe wool.—First prize, £1 1s., L. and G. Furniss, Birchill; second, 10s. 6d., W. Greaves, Bakewell.

BEDFORDSHIRE AGRICULTURAL SOCIETY.

MEETING AT BIGGLESWADE.

The old Bedfordshire Society has seldom enjoyed a more hearty welcome than that it received at Biggleswade. What with bands playing, flags flying, ever-green arches, special trains and hospitable offers, the occasion was kept as high holiday. Still the foot-and-mouth disease interfered somewhat with the show of cattle and pigs, which was rather meagre, although Royal winners put in an appearance amongst the Shorthorns; and noticeably Mr. Mumford's Camilla, pronounced to be the best heifer at Oxford, although only here second to Mr. Howe's Windsor Butterfly, which was merely commended in the same class, at the Royal meeting. As we said, however, at the time "the decision in Camilla's favour was altogether about the greatest fluke of the day, for we most assuredly never expect to see her do so well in anything like the same class of company." Mr. Pawlett being so handy home showed strongly in the first and second classes, although, as Baron Killerby was no longer eligible to compete, he could only obtain a second prize; Prince Alfred being beaten by Captain Oliver's white bull, Lad of the Forest, and Mr. Inskip's Ravensden, of May Duke descent. Amongst the yearling bulls Mr. Mumford took the lead with his Editor, with Mr. Pawlett's Royal Booth second; while Mr. Pawlett won easily in the calf class with his promising Majestic. The sheep show was considered excellent; indeed, it would have been almost impossible at any county meeting to have brought together a better collection of animals than were exhibited in the Down or cross-bred shearling wether class, and it was a matter of general regret that the funds of the Society would not admit of more than one prize being awarded. Mr. Newman's pen, by a Biddenham ram, were of great size and really good looks, and these with several other entries will be heard of again. Colonel Lindsell presided at the dinner, and a very good chairman the new M. F. H. proved himself, as the speaking generally was above the average, or the terribly long toast-list would have worn out the company.

PRIZE LIST.

HORSES.

Best yearling colt.—Prize, Mr. Purser, Willington.
Yearling filly.—Prize, J. Walker, Goldington.
Two-year-old cart filly.—First prize, H. Purser, Willington; second, J. Dudley, Kempston.

Pair of cart horses for agricultural purposes.—Prize, F. Allwood, Walsworth.

Mare and foal for agricultural purposes.—First prize, G. Street, Maulden; second, Mrs. Brimley, Cople.

Four-year-old horse or mare for hunting purposes.—Prize, C. S. Lindsell, Holme.

Hackney of any age, for general purposes.—Prize, W. Whitehead, Wollaston.

Pony.—Prize, H. V. Gostling, Oakley.

The open hunter class.—Prize, the town silver cup, C. S. Lindsell (Croquet).

Mare and foal for hunting purposes.—Prize, J. Henman, Stagden.

Cob.—Prize, J. E. Parsons, Charwelton, Daventry.

SHORTHORNS.

Bull, above two and under six years old.—First prize, R. E. Oliver, Sholebroke Lodge, Towcester; second, W. Inskip, Shefford, Hardwicke.

Bull, above one and under two years old.—First prize, J. A. Mumford, Chilton Park Farm, Thame; second, T. E. Pawlett, Beeston.

Bull calf, under twelve months.—First prize, T. E. Pawlett; second, T. Cranfield, Standford, Bury.

Cow, any age.—First prize, T. E. Pawlett; second, T. Kingsley, Boarscroft, Tring.

Cow, any age, adapted for dairy purposes.—First prize, J. A. Mumford; second, T. Kingsley.

Heifer, in calf or in milk, under three years.—First prize, J. How, Broughton; second, J. A. Mumford.

Heifer, under two years.—First prize, J. How; second, R. Marsh, Little Offley House.

Heifer calf, above six and under twelve months.—First prize, T. E. Pawlett.

Fat ox.—First and second prizes, F. Fowler, Henlow.

Fat cow or heifer.—Prize, F. Fowler.

Pair of heifers, under two years.—First prize, J. Pawlett; second, T. Kingsley.

SHEEP.

Ten long-woolled shearling ewes.—First prize, T. W. D. Harris, Wootton Norths.

Ten Down or cross-bred shearling ewes.—First prize, C. Howard, Biddenham.

Ten breeding ewes, any age.—First prize, G. Street, Maulden.

Three fat long-woolled shearling wethers.—First prize, T. W. D. Harris.

Three fat Down or cross-bred shearling wethers.—First prize, J. Newman, Harrowden. The class highly commended.

Ten long-woolled ewe lambs.—First prize, T. W. D. Harris.

Ten Down or cross-bred ewe lambs.—First prize, F. Street.

Ten long-woolled wether lambs.—First prize, C. Barnett, Stratton Park.

Ten Down or cross-bred wether lambs.—First prize, C. S. Lindsell, Holme, Biggleswade.

Twenty ewes of any breed or age.—First prize, G. Street.

PIGS.

Boar, intended for use.—First prize, S. Deacon, jun., Polebrook Hall, Oundle; second, F. Wythes, Ravensden.

In-pig sow.—First prize, W. Burton, Northill.

Three fat hogs, under six mouths.—First prize, J. W. Tebutt, Biggleswade.

JUDGES.—For cattle, sheep, and pigs—Messrs. J. Robinson, Clifton Pastures, Newport Pagnel; J. Clayden, Littlebury, Saffron Walden; J. Lynn, Church Farm, Stroxtan, Grantham. For horses—J. H. Plowright, Mauca, Isle of Ely; J. M. K. Elliott, Heathencote, Towcester.

THE LUDLOW AGRICULTURAL SOCIETY.

At the twenty-second annual exhibition of this Society the entries were scarcely so numerous as usual, but in several of the classes animals were exhibited that it would be difficult to equal in any part of the county. Mr. Thomas Rogers' stock bull, which won the sweepstakes, and has been successful at several other shows; and both the other bulls in competition were from the same herd. It will be observed that in the sweepstakes Mr. Rogers' took all the prizes offered, and several in other classes besides. The best show was undoubtedly in cattle; but of sheep there was also an excellent assortment. Mr. James Hand's wethers, which carried off a first prize, drew forth much commendation from the judges and the visitors. Of pigs there was a capital show, Mr. Jas. Lockhart being the principal prizetaker. Of horses there was not a good show. Mr. Richard Coston exhibited a cart stallion, and Mr. James Lockhart a nag stallion, but these being the only animals of the sort exhibited, the prizes were withheld in accordance with the rules of the Society. Vince, of Ludlow, took the first prize for implements; and among his collection were ploughs by Kells, Ransome, and Howard, several chaff-cutters by noted makers, turnip-cutters by Samnelson, rootpulpers, oilcake mills, corn crushers, Howard's prize harrows, Gower's seed drills, the Cambridge roller, sheep racks, winnowing machines, and numbers of other articles and machines. Corbett, of Shrewsbury, did not exhibit very largely, but his display comprehended several of the recent improved machines turned out from his works. E. E. Edwards exhibited a new plough, which attracted attention. The mould-board was circular, and turned upon an axle as the earth pressed against it, the result being the better breaking up of the soil. It is said to be an American invention.

PRIZE LIST.

JUDGES.—HORSES: Mr. Hawkins, Weston, Herefordshire. SHEEP AND CATTLE: Messrs. Mansell, Ercall; Hughes, Lady Court; and Wigmore, Weston. ROOTS: Mr. E. H. Davies, Patton; and Mr. Wadlow, Stone Acton.

CATTLE.

A sweepstakes of 2 sovs. each, with 20 sovs. added, for the best stock bull, of any breed, open to all England.—First prize T. Rogers (Battenhall); second, 4 sovs. (Sir Oliver) T. Rogers; third, 2 sovs., T. Rogers (Long Horns).

Bull of any age, and four of his offspring under twelve months old.—First prize, £5, T. Rogers (Sir Oliver). Commended: C. H. Hincksman (Sir John).

Yearling bull.—First prize, £5, T. Rogers; second, £2 10s., P. Turner; third, £1, P. Turner.

Four two years old steers.—First prize, £5, T. Griffiths; second, £2 10s., H. Lippett.

Four two years old heifers.—First prize, £5, T. Fenn; second, £2 10s., T. Rogers.

Pair of two years old heifers.—First prize, £5, P. Turner. Commended: A. Rogers and R. Tanner.

Four yearling heifers.—First prize, £5, P. Turner; second, £2 10s., W. Tudge. Commended: T. Fenn.

Breeding cows or heifers, with calves, or to be certified to calve.—First prize, £5, T. Rogers; second, £2 10s., J. Williams.

Fat cow or fat heifer.—First prize, £5, H. Ridgley; second, £2 10s., T. Farmer.

SHEEP.

Yearling ram, open to all England.—First prize, £5, T.

Fenn; second, £2 10s., J. Hand. Highly commended: T. Fenn.

Ram more than two years old.—First prize, £5, W. Baker; second, £2 10s., J. Hand.

Ram lamb.—First prize, £5, R. Tanner. Commended: R. Tanner.

Pen of ten breeding ewes, two years old and upwards.—First prize, £5, W. Baker; second, £2 10s., R. Tanner. Commended: J. Hand.

Pen of ten yearling ewes.—First prize, £5, R. S. Edwards; second, £2 10s., J. Hand.

Pen of six fat yearling wethers.—First prize, £5, J. Hand; second, £2 10s., F. Bach.

Pen of ten wether lambs.—First prize, £5, R. S. Edwards; second, £2 10s., J. E. Farmer.

Pen of ten ewe lambs.—First prize, £5, W. Baker; second, £2 10s., R. S. Edwards.

PIGS.

Boar under two years old.—First prize, £2, J. Lockhart; second, £1, J. Lockhart.

Breeding sow.—First prize, £2, J. Lockhart; second, £1, J. Lockhart.

Cottager's pig.—First prize, £3, J. Poole; second, £2, C. Smout; third, £1, R. Price. Highly commended: J. Price and R. Smith.

HORSES.

Nag mare and foal at foot.—First prize, £5, M. Evans; second, £2 10s., M. Evans.

Cart mare and foal at foot.—First prize, £5, F. Coston; second, £2 10s., R. Hill.

Nag gelding or mare under five years old.—First prize, £5, H. Lippett; second, £2 10s., R. Coston. Commended: J. Hotchkiss.

Two-year old cart gelding or filly.—First prize, £5, H. Lippett, Priors Alton; second, £2 10s., H. Lippett.

A sum of £5 to be divided amongst the owners of animals exhibited as extra stock.—First prize, 50s., R. S. Edwards; second, 20s., J. Towers; third, 10s., J. M. Brandford.

IMPLEMENTS.

£5 for the best assortment of agricultural implements, J. S. Vince.

LABOURERS.

To the man who, by his daily labour, has reared the greatest number of children without parochial aid.—First prize, £4, A. Banks, workman to Mr. R. Bach, at Elsieh, from 25th March, 1869; had 11 children, 7 living. Second, £2, J. Hughes, workman to Mr. C. Blakeway, from May, 1841; had 9 children. Four competitors.

To the labourer who has lived the greatest number of years in one service, under the same master.—First prize, £4, B. Pearce, workman on Oakly Park Estate, from 17th November, 1826; second, £2, J. Cadwallader, in the employ of Mr. E. Sheppard, his father, grandfather, and Mr. Broxton, on Wettleton Farm, from July, 1827. Fifteen competitors.

To the farming in-door man-servant, who has continued the same service the greatest number of years, not less than five, having a good character from his master.—Prize, £4, J. Edmunds, groom to Mr. Evans, from 2nd May, 1863.

To the female servant who has lived the greatest number of years, not less than five, in one service, having a good character from her master or mistress.—First prize, £4, Alice Roberts, housemaid to Mr. W. Greame, from 19th May, 1851;

second, £2, M. A. Botfield, servant to Mr. C. Blakeway, from June, 1865.

To the female servant who has lived the greatest number of years, not less than five, in one service in the Borough of Ludlow, having a good character from her master or mistress.—Prize, £4, E. Dade, cook to Mr. F. R. Southern, from 16th October, 1861. Three competitors.

To the in or out-door man-servant or labourer who has lived the greatest number of years, not less than five, in one service in the Borough of Ludlow, having a good character from his master.—First prize, £4, R. Smith, in the service of Mr. Hand, from 1st May, 1853; second, £2, S. Cooke, printer for Mr. Partridge, from January, 1854. Seven competitors.

To the labourer or servant who has subscribed the greatest number of years to a benefit or friendly society.—Prize, £2, J. Postans, member of Elephant and Castle Friendly Society from April, 1834, in the employ of Mrs. Cooper, from November, 1853. Two competitors.

To the labourer or servant who has been a depositor in a savings' bank the greatest number of years.—Prize, £2, E. Marston, depositor in Ludlow Savings' Bank from 14th October, 1848, and in employ of Mr. F. Coston, from May, 1863. Two competitors.

To the man who makes not less than four corn ricks, and thrashes at least the same number, in the most workman-like manner.—Prize, £2, G. Morris, servant to Mr. T. Rogers, Coxall.

To the ploughman who, with a single plough, shall plough half an acre of ground in the most workman-like manner, not

less than five inches deep, under three hours and a-half, open to all England; non-subscribers to pay 10s. entrance.—First prize, £3, S. Hoare, in employ of Mr. T. Corbett, Salop; second, £1 10s., J. Rickards, waggoner to Mr. T. Lowe, Bromfield. Four competitors.

To the ploughman who, with a double plough, four horses, and a driver, shall plough an acre of ground, in the most workman-like manner, not less than five inches deep, under three hours and a-half.—Prize, £3, and to the driver 10s., T. Fletcher, waggoner to Mr. John E. Farmer, Felton. Four competitors.

To the ploughman who, with three horses and a driver, shall plough half an acre of ground in the most workman-like manner, not less than five inches deep, under three hours and a-half.—First prize, £3, and to the driver under fifteen years of age 10s., C. Probert, waggoner to S. Amies; second, £1 10s., and to the driver under fifteen years of age 5s., J. Buckley, waggoner to J. E. Farmer. Three competitors.

To the ploughman who, with two horses abreast, shall plough half an acre of ground in the most workman-like manner, not less than five inches deep, under three hours and a-half.—First prize, £3, W. Price, workman to Mr. F. Bach; second, £1 10s., H. Highway, waggoner to Mr. J. S. Edwards. Eleven competitors.

To the ploughman under twenty years of age, who, with two horses abreast, shall plough half an acre of ground in the most workman-like manner, not less than five inches deep, under three hours and a-half.—Prize, £1 10s., M. Bedford, waggoner to Mr. R. Coston. Two competitors.

HEXHAM FARMERS' CLUB.

Mr. W. F. Catcheside, F.C.S., analytical and consulting chemist to the club, has inaugurated the autumn series of meetings by reading a paper on lime. There was a good attendance, with Mr. C. G. Grey, president of the Club, in the chair.

Mr. CATCHESIDE read as follows: I have the honour of commencing the course of papers to be read this season before you, and in doing my best justice to the occasion, I may express my delight in again resuming the discussions of the various interesting topics that can ever be associated with agriculture. You will agree with me when I say that nothing tends so surely to enlighten a dark question than its open discussion. In learning the power of others' minds we often disclose the weakness of our own. In the course of a debate several aspects of the point discussed arise that by sanguine parties are never thought of, and a seemingly sure victory is turned into a stubborn acknowledgment of defeat; therefore I think that the best method of learning the character and properties of lime will be to make that substance and its uses the subject of a discussion. To me is allotted the task of concentrating facts in the first place, and in my humble way offering suggestions, the value of which you will estimate according to personal experience and knowledge. That various opinions are held by you, gentlemen, as to the qualities of, and the occasion for, using lime, I cannot doubt after hearing the discussion on the last paper read in this room. To my mind considerable difficulties arose that checked progress, and I consider it my pleasure and duty, as your chemist, to try and make all plain that I can. With this introduction I will at once proceed to my subject. I think that we shall consider it at the best advantage in the following way: Firstly, the chemistry of lime, including its manufacture and properties; secondly, its uses, physically and chemically; and, lastly, a few remarks deduced from the foregoing data. Lime, chemically speaking, is an oxide of a metal called calcium. You know what iron rust is, and lime may be called calcium rust; it is the combination of calcium with oxygen gas. In this condition lime is very caustic, or has properties of burning up organic and vegetable matter. This may be proved by moistening a little between the fingers, when a soapy and slimy sensation is apparent, owing to the partial destruction or solution of the skin. But to its manufacture. It is prepared from limestone rocks, by submitting them to fire. Limestone we will consider as carbonate of lime, or lime united in a state

of combination with carbonic acid gas, the gas known as "choke damp," and that which effervesces from ginger beer, lemonade, &c. The power which holds the union of this gas with the lime is sufficient to withstand most physical forces. We may crush or beat limestone to a fine powder, and it still remains carbonate of lime; but if we subject it to heat, the union is broken, and the gas is liberated and goes away into the atmosphere. Limekilns are convenient furnaces for the purpose, and as you all know their construction I need not explain them. The residue from the limestone is lime, properly speaking. I may mention that chalk and marble are of precisely the same composition as limestone, being carbonate of lime. Lime has several very important and interesting properties. It has a powerful attraction for water and for carbonic acid gas. You all know the consequence of pouring water upon lime. The lump of lime begins to steam, crack, and swell out, generating strong heat. After a short time it crumbles down to a very fine, and mark, dry powder. This is the operation called slaking. Lime also sucks up any carbonic acid gas it meets with, and for this reason may be used with advantage to clear out this noxious gas from the atmosphere or places where it abounds. If lime freshly burned is spread out to the atmosphere, it soon becomes converted back again into the original carbonate of lime. You may then inquire, why burn the carbonate of lime when we use that substance after all the trouble to drive off the carbonic acid gas? The limestone, you must remember, although chemically identical with chalk, and the carbonate of lime of conversion, is physically very different. Instead of the hard lumps of rock, we have powder to deal with. It would be almost useless to add to soil carbonate of lime in the shape of lumps of rock. We secure the fullest benefit by adding the same material in such a state that it may ultimately mix with the soil, and in its finely divided condition, effect those changes which we endeavour to procure. I may here state to you how important it is for this fact to be fully borne in mind when any manures are added to the land. They should be in as fine a state as possible. Just as animals can digest food and assimilate it to the good of the system the easier when that food is finely prepared for them, so the soil can appropriate to itself any beneficial agent the more readily, when the presentation is in a fine state of division. Lime is also an alkali, or a substance which neutralises acids. Its caustic properties I have alluded to, and they must be well remembered, as the applica-

tion of this knowledge is very important in practical farming. The effect of the stronger alkalies is to destroy organic matter, so that lime, if in contact with ammoniacal substances under certain conditions, will expel that gas. Therefore, it would be exceedingly unwise to put lime with guano, for instance, or sulphate of ammonia, because the ammonia gas would be lost, and the value of manure gone! Lime occurs in almost every plant as a constituent of the ash. Hence it is positively necessary that lime should exist in every soil. No cultivated soil is thoroughly destitute of lime, although the proportion of it may not be large enough for a healthy growth of plants; consequently the addition of lime to land produces, in these cases, an increase of produce. The commonest form of lime as found in soils is the carbonate of lime or chalk. Other states of lime occur, such as capulites or phosphate of lime, gypsum or sulphate of lime, silicate of lime—the substance that gives the firm and glistening characters to straw, nitrate of lime, &c. Sulphate of lime, gypsum, or plaster of Paris, is especially found in the ashes of clover, beans, &c. It is a useful manure, since in addition to supplying lime to plants that require it, gypsum converts the volatile combinations of ammonia into more stable ones, thus preserving the latter very valuable material for further use. Phosphate of lime is usually found in certain rocks and strata. This substance, containing a large quantity of phosphoric acid, is largely used in manufacturing manure, and is of no moment now to us. The properties of lime being considered, we will try how to apply them practically for our own benefit. The uses of lime may be considered to be valuable physically and chemically. Let us first look at the physical effect of using lime. Lime is used as a top dressing to destroy weeds, mosses, and other caucous growths on grass lands. A mixture of lime and earth, couch, &c., known as com-post is preferable for dressing grass. The proportions of the constituents range from one of lime to two of earthy matter or equal parts, according to the result of experience. Books give the former ratio, and farmers the latter. In Hampshire and Berkshire, and indeed in all the southern counties, farmers very often spread chalk over their grass lands, and derive very beneficial results. It is put in before winter, and the frost acting upon it splits it up to powder. It is then spread over the land as a top-dressing. The chalk is merely dug out of the various pits, always abundant in material, and convenient for casting. In one instance, to prove how valuable this process is, I knew of a field the half of which was top-dressed in the above-mentioned manner—twenty cart-loads per acre—and there was a distinct mark down the whole field after a space of ten years, distinctly showing the boundary of the chalk, and simultaneously its benefit. Lime is also used simultaneously to kill insects, worms, grubs, and other living destroyers. I knew a case where a Yorkshire farmer employed lime to top-dress his turnips. He found a worm or caterpillar ate the tops, and, moreover, that these insects only made their appearance at night. He had men out by torch-light to sow lime broadcast over the turnips, and he found that the disease was effectually stopped. Of course in many cases the fearful operation of sowing lime would be too much for the delicate mind of the poor sower, so that we might almost consider this an exceptional use of lime. Now, this farmer was acquainted with a fact—namely, that lime was a powerful caustic, killing insects with ease. He applied his knowledge, and reaped his reward. When we kill the mosses and weeds we apply the same property—the caustic property of lime. Speaking of turnips and lime, I may state that the latter substance is of great use to the former under certain conditions. It has been frequently found in England that turnips when grown at too short intervals on the same field become subject to a peculiar disease, which manifests itself in an unusual development of the roots. Instead of a round fleshy head weighing several pounds, from which filamentous roots spread out into the ground, the top roots splits into a great number of hard woody stem-like roots, of the thickness of the finger (finger-and-toe disease). This disease, which is owing to the peculiar character of the ground, is removed by a large dose of quicklime. It is certain, however, that the lime does not act in this case, because there was previously a deficiency of it in the soil, for a supply of it to the field at seed-time like other manures produces no effect, for the latter is apparent only after one or two years. Baron Liebig is responsible for this opinion. When lime is laid on insects in

the shape of carbonate of lime these effects are not observed, as the caustic properties belong chiefly to lime chemically speaking. Again, we find a soil too peaty or more organic in its character than we would wish. We dose it with lime, and its caustic properties are again displayed in splitting up the soil, and evolving ammonia gradually, and generally effecting a change by imparting a more mineral nature to the land. Another physical effect is that when lime is applied to clay land it opens and loosens the dense masses of clay, and imparts a certain amount of porosity and mellowness, and by so doing opens the road to further improvement, by exposing a larger extent of surface to the action of the air. The chemical properties of lime are just as important. We have noticed its alkaline character or its tendency to combine with acids. Now we know that clay contains silicic acid, insoluble in water, but rendered soluble if neutralised by an alkali. So that if lime be added to silicic acid, soluble silicate of lime is formed. Soluble silicate is required to impart strength to straw in crops of wheat, barley, and oats. Now, gentlemen, supposing you had a field of a clayey nature, and you wanted to have a cereal crop from it, or suppose that in a field of corn, grown in a clay soil, you notice the straw feeble and too weak to support the head, you would then think of the alkaline property of lime and say, "I know how to utilize that clay if I want a good crop. I will dress the land with lime, and then the silicic acid will be made soluble, and I shall not have my corn broken down through the straw being weak." We all notice that all crops take more or less lime from the soil to form their mineral structure. We must see that lime is always there to be taken. Gentlemen, herein lies the whole secret of real tillage farming—the restoration to the land of those materials that each successive crop withdraws. We can then understand the necessity for always having lime in the land, and so periodically the land is dosed with lime. Great difference of opinion exists as to the quantity, but I should say from 5 to 6 tons per acre every eight years would be a fair quantity to lay on. This operation is not so necessary on farms situated on limestone obviously. But there is something far deeper to be considered than this. The idea of putting lime regularly into soil is a plain one, but the development of that idea in all its beauty consists in making even extra use of the operation of liming, by performing it at times suitable for growing suitable crops after lime, that they may profit by the introduction of the same. Farmers should know as a body—not only a few—that lime exists in larger quantities in some plants and crops than others. They should study the amount required by each respective crop. Peas, beans, clover, &c., are fond of lime; or, in other words, their ashes contain a large quantity, proving beyond doubt that more lime is taken out by any of these crops than, for instance, a crop of turnips. If a farmer, then, puts lime upon land and ploughs it in, he makes a full use of it by growing peas on a light soil and beans on a heavy. The putting of lime into land full of manure should be avoided, on account of its alkaline properties. When lime bursts by reason of its affinity for water it is then spread out, and finding carbonic acid gas becomes converted into carbonate of lime, which is not nearly so active as caustic lime. Therefore manure should be used as long after lime as possible. But a great many people fancy that if they lime their land no manure is wanted at all. The stimulus of the new lime causes, no doubt, considerable increase at first, but unless the supply of other material is kept up how can crops grow? When lime is being replaced in the soil, care must be taken that too large a quantity is not used; otherwise the caustic effects will become apparent, and prove fatal to growth. Some farmers suggest, instead of a large dose at once, repeated small doses. I don't know which is the better plan, and it must, I think, develop matters to a question of labour in leading repeated doses, whilst one operation concludes the process in the plan of one large dose. Everybody should apply the position of his farm to the ease, and if convenient, one way in preference to the other he chooses accordingly. Mr. Burn says: "On very stiff soils, or on peaty land a large dose, no doubt, can be used with advantage, but on light soils it is advisable to use it in smaller doses. Some farmers prefer using large doses at once, whilst others maintain that repeated dressings with smaller doses are attended with the greatest amount of practical benefit. There can be little doubt that in soils abounding in vegetable matter, or wholly destitute of lime, a large quantity will be required at once to

change their mechanical and chemical constitution, and the propriety of liming the land heavily at first is thereby indicated. But when the land has been brought by cultivation into good condition the safest plan to maintain it in fertility will be to supply lime at shorter intervals, with smaller doses, at the rate of about 8 cwt. a-year. Repeated liming, with small doses at longer or shorter intervals, is indeed necessary to keep the land in its maximum state of productiveness. The reasons for the practice are obvious. In the first place, the well-known tendency of lime to sink deeper and deeper into the soil from year to year removes the lime from the surface into the subsoil and thus takes it out of the reach of the plants. This tendency to sink is greater in light and porous soils than in heavy but even in very stiff land lime gradually sinks and passes into the subsoil; hence the necessity of applying it as near as possible to the surface. Secondly, heavy rains wash it down into the lower strata, and dissolve also considerable portions of it. It is on account of this dissolving action that badly drained soils require to be more frequently limed than those which are well drained. In the third place, it will be remembered that all our cultivated crops remove a certain proportion of lime from the soil, and as some crops take up a much larger quantity than others, the course of cropping must necessarily influence the period at which liming ought to be repeated. Heavy doses are of extreme utility on poor land, or that which has been long pastured, as much as $7\frac{1}{2}$ to 15 tons per acre may be applied." Mr. Henry Stevens, in his excellent book of the farm, says: "The practice hitherto has been to apply a large dose of lime at once, and not to repeat it during the lease. The motive of this practice I would look for more to the circumstance in which the farmer is placed in regard to the tenure of his farm, than to any reasonable expectation entertained by him of the action of the lime upon the soil in large quantity. It is felt with the application of lime, as with the draining of the farm, the sooner it is done, and the seldom done, the greater profit to him who does it. The opinion is gaining ground, however, that it is better for the tenants' interest to lime in less quantity at a time, and more frequently. It would appear, taking the average of the quantities of lime applied in different districts of the country, that about 8 or 10 cwt. per acre per annum are applied to supply the supposed requirements of the land. It might, therefore, be better for the crops, and more prudent for the purse of the tenant, to apply 8 or 10 cwt. of lime per acre on the fallow every year during the lease, than 8 or 10 tons per acre at one time at its commencement. Over liming was an evil which the land suffered in a former generation more than in this, and when it occurred was confined to poor weak soil that was soon rendered too loose by the use of the plough." It is, therefore, quite correct what Professor Johnstone says, "That the evil called over-liming is a mechanical, not a chemical one. The extreme openness of the soil has been brought on by prolonged ploughing, and too frequently cropping of corn. An opposite procedure must be adopted and mechanical means employed by which a gradual solidification may be effected, among which none is more effective than the eating of turnips by sheep on the land." Several farmers have expressed to me the impossibility of spreading a half ton of lime annually per acre to their advantage. This statement is contradictory to the above authorities, and I leave the two views of the question to your consideration. My opinion is that practically, however, advantageous it may be, the smaller dosing is of no value. I may mention that there are several kinds of lime, according to the quality of limestone employed in the manufacture. The magnesian limestone produces lime of course containing certain amounts of magnesia. The Cornbrash stone contains nearly 3 per cent. of oxide of iron. The lime used in retaining the sulphuretted hydrogen in gas at the gasworks has been sold for agricultural purposes. I cannot advise this article to be used in preference to the ordinary lime. In fact, I have been told by more than one farmer who has used it, that it has very prejudicial effects, killing all vegetable growth completely. It may be that the sulphuretted hydrogen escaping from it as it lies in the ground is in sufficient quantity to exert its noxious effects on vegetable growth. In conclusion, I would like to make a few remarks connected with our subject, which I sincerely trust may be of practical value to you all. I consider it were folly to come here and read a paper, devoid of practical import and a mere exposition of literary ability. It would be wasting your very valuable time. I shall, there-

fore, be perfectly plain in my conclusions, and at the same time I am equally sanguine of their meeting your approval. There can be no doubt of the value to be derived from periodically liming land. A farmer, who has farmed now during a period of 50 years, and whose words must therefore be highly valuable, told us that "The great beauty of lime was to set free some hidden or inactive good already existing in the soil." When peat is split up, this operation proves the truth of the remark. The constituents of peat, when acted on by lime, are rendered useful, inasmuch as the hitherto inactive organic matter is decomposed, producing ammonia, and is also rendered more soluble in water. By these changes lime is made the agent of improving the land, whilst supplying plants with food from the products of its action. Lime kills grubs and worms, weeds and fungi, breaks up too rich soils, supplies food for plants, and cleans the land. But I protest against the promiscuous use of lime to land. I am sorry to acknowledge the acquaintance of some farmers who, immediately they find a decrease of produce, lime their land! Where is their reason for so doing? We ought never to do anything without a reason for it! A hundred reasons may exist to account for the inefficient crop, but only a few can be traced to want of lime. There must be a logical course of treatment followed. I would like farming conducted on a more scientific principle than it is. There is too much haphazard about it. Farmers put all kinds of material in their land without ever so much as thinking whether the land requires them. One may lime when ammonia is wanted; another may put in ammonia manure when lime is required, and so on. There should be no confusion. Old usage, I am sorry to say, has a great deal to do with this evil. A man's grandfather did so, and so therefore he must do the same. Farming is changed now, land is dearer, living is more expensive; consequently larger crops must be made to grow. At the same time, to help farmers, science has done much of late years. Much more is known now of nature than a century ago. Then let us advance too! We surely cannot be content to just farm on as of old, whilst others enjoy a closer glimpse into the wonders of nature, as exemplified in agriculture. We have certain facts before us to-day. They are the basis of calculations. We argue from facts, and in practice as we watch the development of our projects shall we not feel infinitely prouder of our success than if we had not reasoued with nature at all? A man who farms thus can pity his neighbour who looks with anxious eye and uneasy pocket at his crops, afraid that he has put the wrong manure on his land! Now that I hope you know something about lime gentlemen, let us reason together, and I imagine we learn the following lessons: We must use lime upon newly broken land. It kills superfluous decay and hinders nefarious putrefaction. We must also remember the lesson about the land being drained. We must use lime upon clay soils to render the silicic acid, or more properly speaking, the insoluble silicates *soluble*. Then our corn crops will stand the normal effects of the wind and rain, and our straw will stem the noble heads of the grain in the place of asking for strength to enable it to bear its burden. Then we may lime the land when we think that lime is required for general purposes, and let us grow a crop of peas after the process on a light soil, and beans on a heavy one, thus helping nature and filling our own pockets. Again when we see weeds, mosses, lichens, or any living worms, grubs, or any other injurious vegetable or animal causes, let us destroy the effects by lime, using it as a top dressing. If we possess a soil full of unutilized organic matter of the character of a vegetable mould, let us lime at once, thereby splitting up useful matter, converting it into substances that will feed plants, and produce food in turn. Then, gentlemen, there are occasions when we must avoid using lime. We must not use it in quantity upon ammoniacal manures, or in other words, we must not waste such a valuable feeding material for plants as ammonia. Also allow fresh lime some time to attract water, and then the advantages consequent on the proper use of lime will be surer. It is of no use applying lime on farms situate on limestone rock, yet I am sorry to say such an absurd action is really done. Lime can be of no service upon sandy soils unless in very small quantities. As a general rule soils containing more than 4 per cent. of lime should not have lime applied to them. Such is the opinion of Dr. Voelcker, who gives the following means to ascertain the soils likely or not likely to be benefited by lime: "Put a small

quantity of soil in a tumbler, and pour upon it first a little water, and then a good deal of spirits of salts or muriatic acid. If this addition produces a strong effervescence there is no need of applying lime to the land; if no effervescence is produced, in all probability liming or marling will be useful. However, this simple test cannot always be depended on, and it is therefore much safer to have the proportion of lime determined in the soil, which at no great expense can be done by an analytical chemist." In conclusion I will merely mention that I am aware of the poor justice I have done to my subject, but if I had more time at my disposal I should never tire of discussing this question as long as my audience would derive the least benefit therefrom.

The CHAIRMAN asked if Mr. Cateheside could explain how it was that lime destroyed everything bad, but nothing that was good? He had once in Ireland tried separately on grass land fresh lime, and lime which had been mixed with soil, and the superiority of the latter was remarkable.

Mr. DRYDON demurred to the employment of lime upon wet, peaty land where, though it might do a little good, it soon disappeared. He had observed that lime always acted better upon land which had never been ploughed than upon that which had been broken up. In the latter case it certainly might benefit the soil, but not to such an extent as in the former instance. There must be, he believed, vegetable matter in the land for the lime to act upon, or it would do no good. Compost might, however, be used with an advantage in such a position. These remarks were applicable to land which was situated as high as four or five hundred feet above the level of the sea, and he did not know whether they would fit the case of low-lying farms. He had seen land doubled, if not trebled, in value by simply draining and liming it. This land was of a marshy nature, and had on its surface a good deal of vegetable matter. He had remarked before, and it could be borne out by facts, that there were hundreds and thousands of acres of land which could be equally well improved by the same process, and thus rendered a great deal more useful to everybody than they were at present. There were a great many objections to improving this land, some of which would not bear the light of argument; but he would not at present enter into them. In passing down the railway, he saw at a considerably greater elevation than even that of which he had been speaking, fine bullocks for the fat market grazing on excellent grass on land where before had grown nothing but the coarsest vegetation, which was known as a place where the sheep had got the rot, and which was not worth more than five or six shillings an acre. All these results were due to draining and liming. In making these observations he was only adding his testimony to the value of that description of land when improvements were properly entered into; when the landlord gave an encouragement on the one hand by a lease, and the tenant on the other by his industry. For this kind of land draining was the proper treatment, but when lime was easily available it should be also used; for the land from this double application benefited much more than from the draining alone. In some wet lands it might be well to drain alone; but in general money expended in draining, without a corresponding application of lime, was money expended uselessly. To improve, however, required lime; and before engaging in it, a lease should be obtained of twenty-one years, and some little encouragement should be given by the landlord, because, to carry it out, capital was required, and where the lime was not easily obtained, the process was very expensive.

Mr. HARLE, in answer to the Chairman's question, proceeded to explain the action of lime upon vegetation. He said that Baron Liebig had given a chemical explanation of the matter with great clearness. It was that the growth of sedges and marshy plants was caused by siliceous or sandy matter in the soil, and that the application of lime to it neutralized as an alkali this acid, and formed silicate of lime, which promoted the growth only of the finer grasses. This was the reason why, when lime was applied to sandy land, fine grasses always supplanted the sedges and rushes. He must say he thought Mr. Cateheside was mistaken when he stated gas lime was not useful. It must be better than common lime, because sulphuretted hydrogen being added to it sulphate of lime was formed. If this lime was, however, applied hot from the gas-works it might indeed be injurious, because requiring oxygen it abstracted that gas from the manure with which it came into contact, and thereby caused

a diminution in the crop. It should not therefore be put into the soil at once, but should be allowed to lie for some weeks exposed to the air, under the influence of which it turned into gypsum, a very valuable application.

Mr. J. LEE said his own first experience of lime was upon grass land, peaty on the top, such as that which Mr. Drydon was referring to. The fact that land of this kind could be doubled in value by proper treatment should be very greatly considered by landlords, and he thought with Mr. Drydon that they should give encouragement to tenants to apply large quantities of lime to the land; of course it must first be drained. He quite agreed with Mr. Drydon that many of the rough, peaty soils would not pay for draining without liming afterwards, and it ought to be one of the stipulations of the landlords that if he agreed to drain the land the tenant should, with some help, or by other agreements, lay the lime upon it. With respect to the liming of tillage land, he said that every twelve years liming he found to be profitable. It had been said—he did not know whether there was any truth in it or not—that lime bound light land and loosened heavy land. He was not aware whether Mr. Cateheside or any other person could bring proof that such was really the case. He could not himself bring any proof of its truth, but it used to be an old saying in the country. When he was first a farmer there were no superphosphates to apply to land, and he should very much like Mr. Cateheside to explain whether, if a large quantity of superphosphate, say ten cwt., were put on tillage land during four years, it was necessary that so much carbonate of lime should be expended upon it also. As for the lime destroying moss and coarse grass, he thought lime always had a destructive effect upon coarse grass and caused the growth of finer grasses. He had seen ground limestone, or at least limestone from the roads, laid in early days down upon the heather for convenience in carting to the kiln, and whenever it had thus lain for two or three years, and the ground had got some little dust from it, white clover invariably grew ever after. How to account for this he did not know. The clover was not growing previously among the heather or it would have been seen, but he supposed the seeds of the grass must have been lying there undeveloped till the arrival of the lime had assisted them to germinate.

The CHAIRMAN: I have heard the farmers say the seeds were in the limestone, and burning in the kiln brought it out (laughter).

Mr. M. SMITH said gas lime was a substance which he had used for many years, and he had no doubt that it was a valuable manure if properly applied. It was sometimes, however, not properly applied; and he recollected many years ago the secretary of a gas company, who, thinking that if the lime was beneficial to another it might be beneficial to him as well, laid it down on his field in small heaps before spreading it, and then found that where the heaps had lain years elapsed before even the grass grew at all. He concurred with Mr. Dryden that lime was very beneficial to newly-broken soils, for wherever organic matter had lain for centuries undisturbed it required lime to bring it to life. It was not, however, until it came in contact with water or dew, and was dissolved, that plants were enabled to take it up. When lime was laid on to land which had been ploughed for forty or fifty years, and from which, therefore, all the organic matter had disappeared, the application of lime only made the soil poorer than before. For such land as that, bones, phosphate, or manure were necessary, and would do much more benefit, at much less expense. Lime, as Mr. Dryden had remarked, was a proper top-dressing to follow draining, but it ought not to be immediately used, because, if it were, a heavy rain would wash it into the drains, and perhaps choke them up. He gave instances of the value of lime as a dressing, and said, in conclusion, that it was merely a matter of opinion whether compost or hot lime should have the preference. If they would take a ton or half a ton of gas-lime and sow it on the land, it would destroy far more insects and do as much good as five or six tons of lime applied in the same way.

The CHAIRMAN said what Mr. Cateheside had told them, nobody could, he thought, contradict. The information to be derived from the experience of people in liming was of very great value, and the example mentioned by Mr. Drydon it would be well if people in this country would follow. In this country thousands of acres of land had been improved by

draining and liming to an extent almost incredible by people who had not had experience of it. He did not quite see the point in the discussion which Mr. Dryden alluded to. He did not think any of the land which they wanted to drain had any grouse upon it. Liming was, in his opinion, quite useless on wet land; but he could not agree with Mr. Smith, to leave the land four years without liming after draining. He had always been in a hurry to lime it immediately, and in his experience that system always did the greatest possible good to land. The drains must be very shallow where the lime would wash away by being put on as soon as the draining was completed. He had no experience of gas lime, and had never tried it, but it might be that the smell of the sulphuretted hydrogen acted like the muck which a friend, who sent him some splendid violets, told him to use freely, saying the worse the smell which went into the ground the better the odour which came out. Mr. Catchside's paper would, he was sure, not only do others good when they heard it read, but would be even of more advantage afterwards, when they had it printed in their hands, and took it, as they should do, home to read. He should advise all the members of the club to read it carefully at home, by which they might learn both the chemical and mechanical uses of it, with hints how to employ it to the best advantage, a very important knowledge when the great expenditure for lime was taken into consideration. If half the money spent on lime would do as well as the whole sum, it was much better to spend the smaller amount and keep the remainder in their pockets. While thus speaking of the benefits which could be obtained from the use of lime, he must say that in his own experience land had often been overlimed. He had seen this done by farmers who had not much capital and did not wish to employ what they had, and who thought that by liming they might screw a little more out of the land than they could get before, whereas the application of good manure would have produced much better results.

Mr. SMITH, in refuting the objections of the Chairman to his views upon the time which should elapse between draining and liming, said, that if they would lay lime upon land newly furnished with drains four feet deep, it would be found that the water came out quite white, and if they dug down lime would be found at the bottom of the drain.

The CHAIRMAN said he understood that this might be the case where lime was put on immediately, but where the land was worked and fallowed, and the lime spread on the fallow, he did not see why it would be any more likely to wash away in the first year than in any other.

Mr. CATCHSIDE: He was afraid he should call forth the indignation and scorn of the various gas companies in the neighbourhood for obstructing the sale of their gas lime. He knew he would not have a wheelbarrowful on any land he had, from the effects he had seen it produce on other land. With respect to sowing it on the surface, he could not believe, in fact he was positively certain, that sowing ten hundred weight of gas lime or manure of any description, would have no effect compared with six tons of lime. There might be as much soluble matter taken into the land for the first year, but in after years it would not be seen. A good deal of sulphide of lime existed in gas lime, and he had frequently noticed the sulphur smell rising from it miles away. But the question of the application of lime after draining seemed to be the main point in the discussion. If Mr. Smith's argument was true that it was no use applying lime until four years had passed away, the land did not, he thought, require it at all. If four years' crops could be got out of it, draining, not lime, was the proper remedy for it, and the one which ought to have been employed, and it would have grown just as well without lime if it had not been drained. The best method of proceeding was to drain the land, work it, and then apply the lime on the fallow as Mr. Grey had said. He thought it would be discovered that loose soils, only once limed, would receive permanent benefit. The lime would not be washed into the drains if it was properly spread over the surface, for the amount of space occupied by the drains was a mere minimum compared with the area of the surface between them. The water might come out white—indeed he had seen water thus come out himself, but he did not think that if lime was properly laid on it would ever block up the drain. He was very glad that Mr. Harle had saved him trouble of explaining the destruction of the moss. It was the accepted view that the mosses derived the chief source of their

strength from the sand, and by its neutralization the silicate was carried away and divided among other plants, and the soluble silicate entered into the structure of the grasses. With respect to the white clover, he was told only that morning of a case at Allendale, where land situated near the common, which had been accustomed to grow nothing but heather, on being drained and limed, had yielded a first-rate crop of white clover. He remembered a case at a farm at which he was living where a similar instance occurred, the white clover having grown wherever the heaps of lime had been deposited on the field. The encouragement by landlords of liming had been abused, and had led to the expenditure of thousands of pounds in providing lime where it was not required. He could himself point out farms where this had been done. Mr. Catchside then advocated the employment of small doses at short intervals, rather than of large ones at long distances of time. The authorities he had quoted were Mr. Scott Burn and Mr. Stevens, but every farmer would find out the best mode himself to suit his own particular farm. They were getting a little off the line into the artificial manure department, but he would say that it was his firm conviction that the effect of artificial manures lasted only one year. If the land was dosed with superphosphates on a wet year the manure would all be taken away, while, if the soil received it in a dry year, it would do harm to the land, because the manures were to be used at a certain time. Mr. Catchside concluded with some observations upon artificial manures.

Mr. TROTTER said that his brother's turnips had suffered much from the attacks of grubs, until, acting upon his advice, he put a little lime round each plant on the third time of sowing, and the result was that, though two previous lots had been destroyed of this one, not a single turnip went wrong. Having himself taken some of these grubs home and kept them, they turned into black "clocks."

Votes of thanks to Mr. Catchside and the Chairman were then passed, and the proceedings came to an end.

THE USE OF THE CENTRAL CHAMBER OF AGRICULTURE.

At a meeting of the West Riding Chamber of Agriculture, held at Wakefield. Mr. J. B. Charlesworth, of Hatfield Hall, presiding, a conversation took place upon the determination of the insurance companies to compel all the live and dead stock and produce of a farm to be insured to the extent of three-fourths of its value, or only to pay for losses by fire in proportion the amount of insurance bears to the value of the stock. Hitherto, where a farmer insured for £300, no matter what the value of the stock, he received the full amount of insurance in the event of suffering loss to that extent; but now if he insures for £300, and his farm is worth £500, the insurance companies will only recompense him to the extent of three-fifths of the damage. No resolution was submitted upon the subject. Mr. T. C. Johnson proposed that Mr. Morrison be the Chamber's representative at the meeting of the Central Chamber, to be held in London on the 4th October next. Mr. Morrison said he should not have the slightest objection to being sent to London, but he confessed he objected to the Central Chamber, because he did not think it had expressed the opinions of farmers during the last twelve months. The chairman said that was probably the fault of the Chambers themselves in not sending delegates to the meeting. Mr. Morrison said the Central Chamber was not composed of delegates from the various Chambers throughout the kingdom, but was a separate and distinct body which permitted delegates to attend its meetings. The secretary was glad that Mr. Morrison had consented to attend the Central Chamber, because he thought he would find gentlemen present who were fully alive to the interests of farmers. Mr. Morrison said no doubt some of the members individually were, but as a body, he did not think that the Chamber had had much influence upon legislation. The alterations which had been made, instead of benefiting the farmer, had only been the means of making fresh imposts. The secretary said those imposts would have been much heavier had it not been for the action of the Central Chamber; and Mr. Wordsworth said farmers would never exert proper influence until they pulled better together. Mr. Morrison having consented to introduce the subject of the position of the farmer at the next meeting, the proceedings ended.

THE BLANDFORD FARMERS' CLUB.

At the first meeting for the season of this club, Mr. SPOONER, of Ealing, Southampton, delivered an address on "the Principles involved in the Breeding of Stock." There was a very good attendance; the chair being taken by the president for the year, Mr. Scutt, of Bere Regis.

Mr. Spooner said: Throughout the whole range of creation there is nothing perhaps which strikes the mind of the student of Nature with greater force than the wonderful provision made for the preservation and sustentation of animal life. There is no spot so barren but what some vegetation appears, and wherever this is the case animal life in some form corresponds with the supply of food. Provision is made for maintaining and augmenting the species far beyond the supply of food, and thus the struggle of life goes on; the weakest goes to the wall, and the strongest propagate their kind. This phenomenon has been termed by Mr. Darwin "natural selection," which term, however, does not carry with it its own solution, but demands some little explanation. Not only is the surface of the earth instinct with animal existence, but even the very air we breathe is full of the germs of animal or vegetable life ever ready and ever seeking the proper niches to enable it to increase and multiply. The theory of spontaneous generation which has been so long and so vigorously maintained, and which from time to time appeared to be supported by phenomena which could scarcely be disputed, and could not well be otherwise explained, has at length received its quietus, and has yielded to the facts developed by modern research, and the old doctrine, "Omne ex ovo," has been proved to be sound. Decaying substances are soon peopled with animal life, but this does not take place provided all contact with external air is prevented; nor does it result if the air to which it is exposed has been first deprived of all its germs by means of fire. It would appear as if the same scientific truths which modern discoveries had brought to light were believed in with such absolute proof years ago; for Huddibras wrote:

"Great fleas have little fleas
Upon their backs to bite them;
And little fleas have lesser ones,
So on, 'ad infinitum."

"Like begets like" is an axiom that cannot be disputed, and examples are continually met with, showing how types are handed down from father to son, and from generation to generation; and yet, as propagation is effected by parents very dissimilar from each other, there are causes in operation which result quite as much in diversifying the race as in handing down the types from one age to another; so that we may be probably correct in saying that no single individual is the precise counterpart of one gone before. What then is this vital union, or rather what is it not? It is not then a merely mechanical union like the combination of spirit and water, or the composition of the atmospheric air. It is not chemical union which, by the combination of two substances, produces a body totally different from either of the elementary bodies, such for example as water—the product of the combination of two gases, oxygen and hydrogen. Vital union is probably partly mechanical and slightly analogous to chemical union, but, differing materially from either, undoubtedly *sui generis*. Each parent possesses certain peculiarities, but by no means in equal proportions, and there are no fixed rules enabling us to judge precisely what the effect will be of certain combinations, but yet there are certain truths, or rules, although abounding with exceptions, which careful observation has detected and recorded. Of these the first in importance is the influence exercised by either parent on the offspring. When the influence of one is greater than the other, the term prepotency is used to denote the superior influence. And although this prepotency may belong to either parent, yet in the majority of instances, so far as external form goes, it belongs to the male. This is partly owing to the fact that the vital functions, the internal frame, and the central and nervous systems, which are unseen, more frequently follow the female, whilst the more visible features, such as the external form, the skin,

the back, and hind quarters, the size and general shape is generally influenced by the male parent. Sometimes the very opposite is the case, and then the female is said to be prepotent. [Illustrations of the truth of the above remarks were then given by the lecturer, in cases where the male animal was superior in size and weight to the female, in horses and sheep of different breeds, in cattle, and the Manx cat.] In the human race a tall family was often the progeny of a tall husband and short wife. Sometimes the opposite alliance produced the same result, and sometimes part of the family were tall and the other part short; but it is scarcely ever the case that a mean or average size resulted from the union of parents of opposite statures. That the constitution, temper, and mental condition more frequently follows the female parent, is generally acknowledged; and it is considered as essential to the production of a clever family that the mother should be distinguished by mental gifts. It is well worthy of notice, the astonishing manner in which peculiarities and predispositions to disease is propagated, although such predisposition may not manifest itself till a good portion of a life-time is passed away. An hereditary disease or peculiarity appears perhaps at about the age of 50, and not before, and yet the germ of predisposition inherited from the parent must have existed all this period. [The lecturer then proceeded to speak on Reversion, a term which, he remarked, was given to that well-known phenomena of certain peculiarities disappearing in one generation and re-appearing in the next, or subsequently.] It was this fact that, with animals when the first cross had proved eminently successful, a continuation of the cross-bred animals has by means of reversion caused all sorts of incongruous results to crop out, so as greatly to disgust the would-be improver. So strongly has this been felt by many breeders, that they have condemned crossing altogether except for purposes of the butcher, or confined to the first cross. Indeed, at one time this was the leading doctrine of the most prominent men belonging to our agricultural societies, who clung with superstitious tenacity to the doctrine of purity of blood, believing it to be the ark in which alone true safety was to be found. Time was when prizes were only given to three breeds of sheep supposed to be pure. Now what do we see? Improved Hampshire Downs, Shropshires, New Oxfordshires, and others, all from cross-bred parentage, but non-recognised as distinct breeds, and all considered worthy of prizes and of encouragement. These breeds may be considered as the successful results of crossing, scientifically and practically carried out, and although, no doubt, contemporaneously with these successful examples, many others have been made which have ended in failure, yet we cannot shut our eyes to the fact that new and distinct breeds have been thus created, and have been so perfected by rigorous weeding that they require no further crossing, but only careful selection, and may now justly take rank as distinct breeds. Although there was no reason to doubt but that the Southdown is a pure breed, greatly improved by selection, yet the Leicester breed was raised by crossing in the first place. It was as essential to have the best and purest parentage on the one side as the other. The Hampshire and Wiltshire Downs originally were large, bony, uneouth sheep, with horns, which latter were got rid of by means of Sussex rams, but still remained a very useful though coarse sheep, till Mr. Humphrey commenced his improvement some thirty years ago by means of two of Mr. Jonas Webb's prize Southdown rams, from which were descended all the rams he afterwards used or let, although he replenished his flock and maintained his size by occasional purchases of ewes. This improvement has been carried out with the greatest success by Mr. James Rawlence and others. The Oxfordshire breed is the result of the cross of the Cotswold ram with the Hampshire Down ewe. The Shropshire is indebted to both South Down and Leicester for the improved breed of sheep recognized under this name. Thus, without disparaging the effects of those who have devoted their attention to the improvement of pure breeds, some of whom he was glad to see present this evening, whose exertions were

worthy of the highest praise, yet all must acknowledge the great success that has attended the establishment of the breeds he had mentioned. Indeed, he considered that more skill and more science had been shown by the breeders of sheep than by the breeders of any other kind of animals. A certain want had been felt, and breeders set about to supply the want, whether it was greater size, earlier maturity, or larger or finer wool; and when the want was supplied and the breed established, further crossing had, for the most part, been discontinued. The Royal Agricultural Society, not leading, but falling in with the improvement, greatly aided and extended the movement. But whilst this was the case with sheep, it was far otherwise with horses. With the exception of cart horses, the breed of which had certainly been greatly improved by the encouragement given by the Royal and other Societies, he considered that other useful breeds would have been better if these Societies had never existed; but to this he would refer again before he concluded. Crossing had been adopted with great success with pigs, for, although certain distinct breeds had long been known, such as the Berkshire, Yorkshire, and Sussex, yet it would be somewhat difficult to give a correct nomenclature to all the different breeds. The Royal Society have long since fallen back on the distinction of "large and small," "white and black" pigs. It would almost appear that the rule with regard to pigs must have been derived from Shakespeare, who in "Macbeth," in the incantation of the witches, says:

"Bubble, bubble, toil and trouble;
Fire burn and cauldron bubble.
Black spirits and white,
Blue spirits and grey,
Mingle, mingle, mingle,
Ye that mingle may."

So with pigs it may be said to have been—

Black pigs and white,
Blue pigs and grey,
Mingle, mingle, mingle,
Ye that mingle may.

In-and-in breeding had been more successful with horned cattle than with any other animals, and with the Shorthorns it appeared to have been followed out without those objectionable results which were often considered to attend the practice. These objections were a disposition to barrenness, a want of vigour, and the increase of those diseases to which the parents are most liable. In the human subject it was considered—and with good reason—that the alliance of near relations was conducive to scrofula, insanity, and barrenness. The truth appeared to be that certain diseases and peculiarities were hereditary in particular families, which by alliance with relations became two-fold increased, whilst by alliance with other families not liable to such diseases there was a fair chance of the defects in question being crossed out. With cattle, and with Shorthorn cattle more particularly, by employing healthy parents, possessing great excellency and few if any defects, the benefits of the latter have been kept up without the evils which have so frequently followed the practice, and thus we have the celebrated Duchess and other families handed down in unrivalled perfection. In no breed of animals have the females been so highly estimated, which is shown by the remarkable sums given for the best cows at the leading sales. One interesting fact is well illustrated in the breeding of cattle—viz., the power of transmitting the milking, or female qualities, by means of the male, which must therefore have possessed the germs of those qualities belonging to the opposite sex. This was well shown by the Alderney bull, which was as important as the cow in transmitting rich milking qualities. Mr. Spooner thought, however, it was rather to be regretted that in giving premiums for cattle more attention had not been paid to the milking qualifications, but the purposes of the butcher had alone been regarded. Thus while some of the old milking breeds have almost died out, their places have been supplied by cross-bred and mongrel animals to a very large extent, it being considered in many instances that for dairy purposes pure-bred animals were not so profitable, more particularly on moderate pastures. With regard to horses, all must agree that the difficulty of suitably mounting a welter weight is greater than ever, and it is also an acknowledged fact that it is more difficult than ever to provide remounts

for the cavalry and artillery. Why should this be the case, when it is well known that a good animal costs no more to keep or to rear than a bad one, and that such vast sums have been expended in breeding from thorough-bred horses? He well remembered the horses that used to be cast and sold out of the cavalry and artillery some thirty years ago, and how immeasurably inferior were the cast horses of the present day. He had occasion to look over a lot of horses thus cast a very few years since, and there was not one in twenty but what was faulty in structure, or had some hereditary defects. Why was this the case, but because it had become at first the convenience, and then the custom, to use broken-down race horses alone for stallions for getting saddle horses, which fashion the Royal and other Agricultural Societies, instead of opposing had done their utmost to encourage. A certain few had set themselves up as law makers in this respect, and in total abnegation of the principles of science and physiology except such as were derived from the training stable, and they have ventured to proclaim certain dogmas which others have been weak enough to regard like the laws of the Medes and Persians. These dogmas were that pure blood must be had on one side, and that side the male, and that thorough-bred horses alone possessed it. But to this he replied, 1st, That by using thorough-bred horses for successive years, in the course of ten generations they would have only about one thousandth part of the original breed left, from which they derived their bone and substance, their constitution and digestive organs. 2nd, That the female was as important as the male in breeding. 3rd, That principles that had proved so successful with sheep and other animals would prove equally successful with horses. Thus after trying to get superior horses, in a few generations the animals became weedy and degenerated, and we were obliged to begin again, starting, perhaps, from the plough tail. He had no wish to underrate the good qualities of blood horses, but freely acknowledged that no other in the universe possessed so much speed and endurance, or could make such extraordinary muscular efforts, or whose nervous and vital systems were more wonderfully developed, or could better transmit their good qualities; but at the same time they were bad doers, were narrow and small in the carcase, and deficient in bone, requiring large quantities of the most nutritious food, and were, from their thin skin, very susceptible of cold, and incapable of standing the rough treatment and rigours of a campaign. The original parents, Barbs and Arabs, first introduced in the reigns of James and Charles, were small animals, about 14 hands, and the size of their descendants has been obtained by high feeding from their earliest. There is thus a perpetual tendency to reversion, particularly when excessive feeding is not adopted. He would, therefore, in conclusion, with a view to remedy these evils, suggest the following plans: As in consequence of the discouragement hitherto given by the leading Societies, it would not pay private individuals or companies to establish any scheme for the improvement of ordinary saddle horses; it must be done by the Government, or the aid of the State; and first he recommended the doing away with Queen's plates, which, however useful in past days for improving the breed of horses, were no longer of any utility. The Turf, he thought, could take care of itself, and the money might be devoted to a national purpose, viz., the encouragement of the breeding of cavalry and other useful horses. Secondly, Government stud farms should be established, not so much for the breeding of weight-carrying hunters and cavalry horses as for the breeding of horses and mares calculated to produce them. Hampton Court might well lead the way in this respect. It would be far better than keeping it up to play second fiddle to Mr. Blenkiron. There might also be half-a-dozen other Government studs in suitable parts, and the loss on these farms would be but little, and would soon be repaid by the better supply and cheaper cost of good, sound, and valuable horses, many of which would make first-class hunters, and others valuable horses for cavalry, artillery, and harness purposes. All faulty animals should of course be weeded out annually. The greater part of the mares might be sold in foal, and the best of the young horses as stallions. He verily believed that if some such plan were adopted, in a few years they would be able to mount the cavalry as they ought to be mounted, and supply the country with valuable horses for all purposes, in place of the worthless weeds that now abounded. The stud farms in different parts of the coun-

try, to accomplish the ends in view, should be furnished with at least:

1st. One thoroughbred stallion, the most calculated to get weight-carrying hunters and saddle horses, with suitable mares.

2nd. One seven-eighth-bred stallion ditto.

3rd. One or more three-fourths-bred stallion.

4th. One or more half-bred ditto.

These stallions to be available for the neighbouring farmers as well as for the stud farm.

5th. Mares, young and fresh, with size, substance, shape, and action (a few of which can still be obtained), but without pedigree, for alliance with stallions Nos. 1 and 2.

6th. Mares with the above qualities, but possessing one-fourth blood, that is, descended from a thoroughbred sire, and fit for alliance with stallions of Class 1, 2, and 3.

7th. Mares with above qualities, and possessing one-half blood, suited for stallions 1, 2, and 3.

8th. Mares possessing three-fourths and seven-eighths blood, of proved excellence, and suited for stallions 3 and 4.

Mr. H. FOKES said as regarded sheep he had more practice than many present. There were many breeds of sheep which always did best in certain localities that suited the particular breed. Mr. Spooner had alluded more particularly to the Hampshire Down. There was no breed of sheep that had exhibited more improvement than they had during the last twenty years, especially in the Salisbury district. The late Mr. Humphreys told him at the cattle show at Islington some few years since, that all his best shearlings were descended from one of his ewes. The late Mr. Roper, of Clenston, bought a ram at Wilton fair some years ago. Mr. Rawleuce, of Bulbridge, and himself sent 10 ewes each to him; when the produce were shearlings. Mr. Rawleuce exhibited Down ewes at the Bury St. Edmunds meeting of the Royal, and he, Mr. Fokes, exhibited shearlings for the cup at Dorchester, as southdowns. They both took the prizes, and in each pen of ewes were descendants from Mr. Roper's sheep. This proves what may and can be done by judicious crossing. As regards

the Shropshire, every breeder has a peculiar breed of his own, and if they would only look at the report of judges at the late Oxford meeting they would find in the conclusion of their report that they laid down stringent rules to guide the Shropshire breeders as to what a Shropshire sheep ought to be. He had acted as a judge of Shropshires at the Royal on two occasions. At the Battersea meeting there was a wonderful show, and at the present time he believed Lord Chesham's were as good as any. Everyone must be very careful how they begin crossing; the first cross invariably did well, but he should advise all parties to keep the animals that were most suitable to his farm and his district. He had always stood by the Southdowns, and tried to keep them as well as he could, combining size, quality, and plenty of good wool.

Mr. J. FORD quite agreed if regard to Southdowns being the purest breed of sheep, but it was impossible to maintain a pure breed in Dorset without occasionally going into Sussex, and getting some from there. He had done so for 30 years. The late Mr. Jonas Webb had, he believed, some of the best Southdowns possibly to be obtained, but he could not get on without occasionally obtaining some of the original breed. He (Mr. Ford) was also a believer in pure breeds of cattle, but as with sheep so with Herefords or Devons. To keep up the purity of the breed, and prevent deterioration of stock, it was necessary to go into North Devon or Herefordshire. People could not be too careful in crossing, but certainly great improvement in herds had arisen by judicious crossing. He also quite agreed with Mr. Spooner in his remarks about the old Hampshire Downs, as being the most ugly sheep ever bred, but the improved Hampshires were very different. As regarded the Shropshire he was of opinion that they were almost all cross-bred. Mr. Newman, who had some of the best, had a Southdown ram from Mr. Webb's flock, and he noticed in Lord Chesham's show of them that there was more of the Southdown than anything—some of them were very fine wool, and others had wool as coarse as hair. He (Mr. Ford) said that a farmer should study to get such animals as were suitable for his farm, and having procured a good and suitable breed not to chop and change about too much.

ATHENRY FARMERS' CLUB.

AGRICULTURE AND SCIENCE.

At the monthly meeting of this club, the Rev. M. Perriu in the chair, the following paper was read by Mr. N. G. RICHARDSON:

The subject I have chosen to-night is the connexion between agriculture and science. In the course of a few years I venture to anticipate it will be impossible for such a subject to be discussed at Farmers' Clubs, as by that time agriculture will be looked upon as a science in itself; but for the present we can only speak of the advantages science has conferred on agriculture, and even in the present backward state of agriculture they are numerous and important. Before commencing my subject, I think I should make some general remarks on the word science, to explain in what sense I use it. Upwards of two hundred years ago men contented themselves with arguing about what they wished to find out, and their researches after nature were confined to words; but Lord Bacon about that time published his famous works, proving uncontestedly that before we can be certain of knowledge we must make numerous experiments, and that before commencing to argue we must have facts to argue on. Experimental science may date her birth from then, and has been increasing in importance ever since; but Lord Bacon's writings are not yet sufficiently known, and, from not attending to his directions, various blunders have been and are still being made in all directions. One of the most amusing on record is the following: Charles II. proposed this question to the London Society—a society composed of the most distinguished scientific and literary men of that period—"Why was it that if you weighed a bowl containing water, and then put a live fish into it, the weight remained the same; but if you put a dead fish into it the weight was increased to the extent of the weight of the dead fish?" After a lengthened debate they

discovered a satisfactory reason for this curious fact. When some one suggested that they should make the experiment, it was discovered that no such difference existed, and that the king had merely played a practical joke on this distinguished society; but though we may laugh at the blunders committed by the savants of that age, do we not act in the same way? For instance, take solid ploughing and crested ploughing; the former is generally believed to be the better plan, as it is supposed to give a better seed-bed and to be less strain upon the horses. Granting that these are true, has any one ever started two ploughs in the same field the same day, the one ploughing solid, the other crested, and treating the fields in precisely the same manner; weighed the crops after harvest, noting all particulars, such as which ripened first, which had the best grain, as well as heavier crop, also particulars of soil and weather? Another instance is in the case of sheep dips, artificial manures, and feeding stuffs; we use them, either because we believe what the vendor chooses to tell us of them, or on the faith of an analysis, or because we have tried them and found them to succeed; but when we find them succeed, we take for granted they will succeed in every case, neglecting the conditions under which they were tried, and also neglecting to find out why they succeeded or why they failed. Thus, though in some instances we partly act on a scientific plan, yet we never make sufficient experiments, nor when we do make a few experiments do we sufficiently follow up the clue so obtained. From these instances you will perceive that what I consider scientific treatment of a subject is to make numerous experiments, taking note of each particular, and then, proceeding to argue on the cause of the result, finally lay down a general law for our future guidance. That this is not the general notion on the subject is evident from the constant use of the

expressions "Practice *versus* science," "An ounce of practice is worth a pound of theory;" and in an article on this very subject in a weekly paper, it was stated, "Let theory and science say what they will, without practical experience we are left still in the dark." These are sufficient to prove that at least some people, if not the majority, imagine that theory and practice can be separated, as if a theory or science would deserve the name that was not founded on facts discovered by experiment—in other words, practice. If not so founded, when brought in contact with practice it entirely fails to account for the facts so discovered, and so proves itself a false theory, and therefore unworthy of the name of science. But to return to our subject. The advantages science has conferred on agriculture may be divided into two heads; first, the benefit derived from the study of the various sciences; second, that derived from a scientific treatment of agriculture itself. Botany I begin with first, dealing as it does with the structure and habit of plants, which are the only products of agriculture. As far as the grain crops are concerned, we have not improved on the knowledge of the ancients, as we still continue to grow the same plants as were grown thousands of years ago, and I am not sure whether we have improved the quality of the grain, at least if we take the average of that grown through the country. Of course, if we take that grown by the best farmers, we might find an improvement, not only in the quantity per acre, which is undoubted, but also in the quality; but unfortunately skilful farmers are not sufficiently numerous to raise the standard much, but we may hope that by careful selection of the seed sown and proper tillage, inferior grain will gradually disappear. But in green crops botany has been of signal service. Take, for example, the potato, a vegetable which, even the most bigoted disciple of Malthus must admit has been of some service; but in Ireland it is needless to say anything in its praise, as here there is more danger in over than under valuing it. I pass from it to a root which is not valued so highly, but which has been of great service to the meat consumer, the farmer, and the labourer—I mean the turnip. In former times grain crops were grown repeatedly, the principal way of keeping the land in fertility being the custom of fallowing the land. But the introduction of the turnip is gradually abolishing this custom, to the great benefit of the meat consumer, as he is able to get fresh meat all the year round, instead of only during the summer and autumn months, as formerly; to the farmer, as, instead of allowing his fields to be idle, he is able to crop them every season, and, besides, to improve his fields by so doing; but to the labourer it has been the greatest service, as the turnip crop is one which requires a vast amount of labour in all stages of its culture. These are the most remarkable cases; but when we remember that to botanists we are indebted for cabbages, mangels, &c., not to mention the greater number of our garden vegetables and fruits, I think it is evident agriculture owes a great deal to botany. To show the advantages that may accrue from a study of this science, I will mention the following cases, though they are neither of them directly concerned with farming. When Linnæus, the famous botanist, was an under gardener, a plant which he was told was very precious was left in his charge; and directed to place it in a hothouse. The head gardener was horrified to find one morning his precious plant left out in the frost, and accused Linnæus of wilful neglect; but he accounted satisfactorily for the change, as he was able to tell from the structure of the plant that it must live in a cold climate. The result proved he was right, as the plant gradually improved. Another instance is in the case of the *Aurancaria imbricata*, an ornamental tree. The elder McNab, of the Botanical Gardens, Edinburgh, knowing that in their native country their roots were saturated with wet during the spring of the year, owing to the melting of the snow on the tops of the mountains on whose sides they grew, thought they should receive similar treatment here, and ordered barrels of water to be poured on their roots during the spring. Whether due to this treatment or not, it is certain they thrive very well, and are about the best specimens of this tree in the United Kingdom. A few years ago farmers in England, but more particularly in France, took it into their heads that they were serious losers by the small birds eating a large quantity of their grain. It was immediately decided to destroy them, which was done, at least in France, so successfully that all the birds disappeared. The result was that the farmers discovered that their crops were unable to grow, owing

to the ravages of insects, which were now able to increase unchecked. They thus learned by sad experience what they might have learned from ornithology, that birds are the natural enemies of insects, and feed on them to a very great extent, some of the small birds living on them altogether, and others living on them for about nine months in the year, not to speak of the advantages derived from birds eating largely of the seeds of weeds. Electricity might become of the greatest service, if we can rely on the accounts of some experiments which have been made. Poles were set up in the ground, and wires fastened across the tops, and then brought down the poles and connected under ground. The results, in some cases, were eminently successful, oats so treated being ten inches taller than the rest of the field, but in other cases there was no perceptible difference. Surely this is a way of manuring land that should not be neglected, or, at least, if useless, this should be proved, and the reasons stated. Mechanics is a science that has been of great service, and never more so than during the season just past. How the harvest could have been secured this year without the use of reaping machines is a puzzle to me, and it is a curious fact that in England and even in Scotland, it required a year like this to convince farmers of the absolute necessity there existed for such machines. The whole harvest came in together, men could not be obtained to secure it at once, and so farmers were driven to use them. I have seen it stated that the principal machine makers had to work night and day, and were unable to supply the demand. Now, this raises a question at once—the result of this influx of machinery on the labour market. We may leave the general question of the change of farm labourers into skilled artisans to make the machinery and the proper dispersion of labourers to the social science philosopher. These are questions not likely to be considered by the labouring class at present, but there is one question they will seriously consider, and that is, these machines do more work than we can do, and at a cheaper rate—the result will be that they will be employed, and we will not. But the labourers may remember two considerations: the first is, that the greater number of machines are designed to save the heavier sort of labour, such as mowing and thrashing; the second is, that as farmers find their haymaking and harvesting bills decrease, independently of being got over more satisfactorily, they will turn their attention to the many improvements that are required on their farms and so the labour that was spent on harvesting, &c., will be spent on draining and fencing. When all these improvements have been effected, the labourer may perhaps find it difficult to get employment, but in this county at least there is no apparent danger of such a terrible catastrophe. This year is the first year I have used machinery for making hay, and, in consequence, I have been able to commence clearing out a lake, a thing I should never have thought of attempting in other years. But mowing and reaping machines are but a fraction of the implements we are indebted to mechanics for. Why, if we read the price lists of some of the leading agricultural machine makers, we get bewildered among ploughs, harrows, turnip-cutters, pulpers, thrashing and mowing machines, flax-scutchers, chaff-cutters, furze-bruizers, not to speak of all the improved steam machinery that, I suppose, will be gradually introduced. The next science I shall refer to is chemistry. The services it has rendered are immense; but when chemistry is better understood, and the chemist becomes a farmer, and the farmer a chemist, we may expect a splendid result. One of the present advantages is the analysis of soils; here a great deal of good has been done by letting us know what manures are required, owing to a deficiency of any particular element in the soil, and which the manure will supply, hence preventing waste of manure, and consequent loss to the farmer. Another is the manufacture of feeding stuffs and artificial manures. These are obtaining a greater share of attention than formerly, and deservedly so, since it is impossible to grow good crops without the one or the other. The latter has a more immediate effect; but the former, till experience shall have proved the opposite, I must consider the best means of manuring land, as there is no way of improving the quality of the manure equal to using cake, grain, and other concentrated food; and farmyard manure must be considered the mainstay of the farm, owing to the beneficial effects, both immediately and for a series of years to follow. I met a farmer in London who told me the system he adopted was to use all his turnips with sheep. He fed, besides, sixty fat cattle in the

stall, feeding them entirely on chopped hay or straw and feeding stuffs (what the exact system was I did not inquire, as at that time I did not take as much interest in farming as now); the result was the carting of his turnips was reduced immensely, which was a considerable saving. He was able to turn out his cattle in splendid condition in a much shorter time than his neighbours, and, though his manure heap was diminished in quantity, he was able to grow better crops than his neighbours, owing to the improved quality, whilst the cartage was greatly lessened. But the chemical manufacture of feeding stuffs and manures has forced farmers to the study of chemistry, to enable them to decide their respective values and to protect themselves from the disgraceful frauds that were sought to be practised on them. This brings us to the custom of getting samples of all the artificial manures in a district analysed by a competent chemist, such as has been adopted in some counties in Ireland, and also by the Athenry Farmers' Club. There are two reasons why such should be done. The first is artificial manures are sold by agents scattered over the face of the country, who naturally do their best to sell their own commodity, and the farmer is naturally puzzled to know which to select and where to lay out his money to the best advantage. This he cannot tell, and, therefore, buys from the seller who gives him the greatest amount of credit, or who happens to be the most plausible. Chemistry now steps in, and by analysis is able to tell which contains the most valuable ingredients, and taking also into account the selling price, decides which is the best value. This way is not, however, accepted by all, and on the publication of the report of your club a discussion was carried on in the pages of the *Farmers' Gazette* and the *Irish Sportsman* relative to this system. Mr. Woufor, a manufacturer of one of the manures analysed, complained that, owing to a false system of valuation adopted by chemists, the returns were not to be depended on; also, that an erroneous estimate was taken of some of the chemical ingredients. These were replied to by the *Farmers' Gazette*, and I should be inclined to think that paper was probably right, though, of course, I could not venture to give an opinion on the subject, from my almost total ignorance of it; but that such a question should arise is conclusive proof that we have not yet attained to a proper knowledge of chemistry, and, further, that before we can absolutely decide on the cheapest and best manure, varied and extensive field experiments must be made with the different manures, under the guidance of experienced farmers and chemists. There is one point in Mr. Woufor's letter, however, where I think he goes wide of the mark, and that is where he states that his manures consist of the most expensive materials, and are, therefore, most valuable. He says in one of his letters "For your readers' information I will analyse them by the commercial test of the price of each article in the market. To do so, I will place side by side the cost of the materials in each of the manures, and then analyse the result of the figures, by which we will come at the actual cost of each manure." I maintain that the cost of the materials of a manure to the manufacturer are of very second-rate importance to the farmer, whilst the price and quality of the manufactured article are of the greatest importance, and must be discovered either by experiment or chemistry, or, best still, a combination of both. Up to this we have been dealing with honest men, who wish to drive an honest trade, and to confer a benefit on the farmer as well as themselves; but all men are not honest, and this brings us to the second reason why manures should be analysed. The spurious manures are constantly sold through the country, and, therefore, farmers, particularly the poorer class of them, plundered of their money, is evident from the exposures which have frequently taken place from the reports of the analysis of the different farmers' clubs, and from Mr. Woufor's letter, where he speaks of "those ingeniously conglomerated compounds, known in the market as Liverpool mixtures," and which are to be found from Galway to Ballina, and from Ballina to Athlone. That we should do what we can to effectually put a stop to such practices is, I think, our duty, and chemical analysis offers a certain means of doing so. Finally, gentlemen, there is the question of climate. First, with reference to the general climate, depending upon the latitude and longitude of the country; and secondly, the yearly variations of the climate in each particular place. The first is, I think, a question that is sufficiently understood for all practical purposes, at least it may be safely left for future generations, as we have so much more to learn that has

a direct influence on our agriculture. People living in their own country, of course, understand their climate, and those who migrate mix with the people of the country they migrate to, and soon learn the peculiarities of the climate of that country. I may merely add that I lately saw it stated that about six hundred years ago grapes were grown freely in the open air in England, but that about that time their cultivation had to be given up, owing to the seasons becoming unfavourable to their ripening. This, if true, would prove that great changes may take place in climate, even in the same place; but, as I said before, I think we may safely postpone discussion on this subject. The yearly variations of climate are of much greater importance to the farmer, some crops preferring a wet season; others a dry season; and it is needless to mention the many advantages that would accrue to the farmer if he could foretell the general character of the seasons for a year or two in advance; and I do not see why we should despair of such being the case, when we know more of the general laws of nature; but before this can be attained, we must accumulate a vast amount of data. Observations must be accurately taken in different parts of the world, and for a considerable number of years, before anything approaching a theory that will even approximate to the truth can be built up. The difficulties that must be surmounted ere this result can be attained are exceedingly great, but can, and, I am convinced, will be overcome. In fact, observations have been taken, and are still being taken, in numerous places, but not on a sufficiently extensive scale; nor are they part of a comprehensive scheme; but, with the exception of those taken at observatories, they are the work of individuals, and necessarily isolated and unclassified. The great danger to be avoided is hasty conclusions drawn from insufficient data. A memorable instance of this is, that a few years ago, when the late Earl of Carlisle was Lord Lieutenant here, because a series of wet years happened to come in succession, he recommended grain crops to be sown but sparingly, and the greater part of this island to be laid down to permanent pasture. This advice, if followed, would mean death to all scientific farming in Ireland, and, I may say also, to all improvement; and yet the earl was a most highly educated and gifted man, and one who, we may take for granted, had an earnest desire for Ireland's welfare. If such men as he commit errors like this, what danger are we in! I believe I may apply to all the matters I have touched on to-night a remark which I read, as applied to climate alone: "These are questions of which we shall have to leave the scientific investigation to those who may come after us; for the present we seem likely to content ourselves with deductions from very narrow experience, with very large conjecture and very confident assertion." I now come to the second division of the subject—the advantages derived from a scientific treatment of agriculture itself. One of the most remarkable instances of this is the origin of Shorthorn cattle. Mr. Bakewell, the founder of this breed, was a close observer of nature, and he noticed that the cattle which fattened easiest and came soonest to maturity, however much they differed in some points, all agreed in one, and that is, they had short horns. He consequently adopted that as his standard, and the result is the splendid breed of Shorthorns. Other instances are the growing of turnips and potatoes in drills in preference to large beds, as they produce a better crop, can be kept cleaner, and are much cheaper to put in and take out; for I hold that good farming consists not merely in growing the largest and best crops, but in doing so at the least expenditure of time and money, as that means so much gained to the wealth of the country. Unremunerative labour is held by political economists to be labour wasted, and, therefore, should be avoided. Another is that of laying down to permanent pasture with natural grasses. The old method was to allow the ground to come to the natural grasses through lapse of time. In this country they previously prepared the ground by taking as many successive crops of oats as the land would give without manure. But now the improved system is to manure the land highly, then to lay down with the natural grasses, which are obtained by noticing the sorts that grow in the best grass lands in Meath and about Dublin. These are some of the instances where scientific treatment has conferred great benefits on agriculture, but up to this scientific performers have had but slight encouragement from the great number of farmers, and besides they have been few. We may certainly expect a great advance in the future, as education is extended,

and the many advantages of a proper system of farming become more and more evident. Besides, there is an influence at work now that was absent in bygone days. I refer to Farmers' Clubs. If they do not make themselves felt at first, it is partly owing to the novelty of the thing, but still more to the enormous amount of inertia they have to overcome; and I think no sane man will but admit that they will, in time, in connexion with the press, exercise a great amount of influence for good, for this one reason alone, leaving all others aside—they make men think; they hear of new plans of growing crops, and brilliant results stated, and when they compare these with their own slovenly work, they come away, not, perhaps, convinced, but still inclined to try the new system on a small scale. Once the wish for improvement is generated, it will steadily, though perhaps very slowly, increase. Still it is there, and as years go by it will gradually spread over the whole country. This it is we are aiming at, and I feel convinced that future generations, if not the present, will say the Athenry Farmers' Club has deserved well of its country.

SALE OF MESSRS. GARNE'S SHORTHORNS,

AT CHURCHILL HEATH, CHIPPING NORTON.
ON TUESDAY, OCT. 4TH, BY MR. H. STRAFFORD.

"Mr. George Garne's luck this season has been something extraordinary, while it should serve as a capital advertisement to the Churchill Heath sale." It was thus that we wrote in our report of the Royal Society's Show at Oxford, in July, and certainly the Heath herd has been coming to the front with immense force during the past summer. At the Taunton meeting of the West of England Society, the only two entries made by Mr. Garne took the first prize for bulls and the first prize for cows, as another cow was best of all at Oxford, with a reserve number, and sundry commendations also falling to the share of Mr. Garne, senior, and his two sons. The sale on Tuesday was made up, in fact, from the Broadmoor and Churchill Heath herds, the foundation of which, according to the customary prologue, "was laid nearly forty years ago by Mr. Garne, who was one of the earliest introducers of Shorthorns into the county of Gloucester, and the origin of his herd was from stock then held in high repute, such as that of Messrs. Champion of Blyth, Mason of Chilton, and Whitaker, of Burley." The advertisement runs on to say that "first-class bulls have since been used from Farnley, Brandsby, Ley Fields, Tortworth Court, and other famed herds; latterly, sires have been bought and hired at high figures from Colonel Towneley, Messrs. Booth and Peel; and on comparing their pedigrees carefully with the *Herd Book*, the animals will be found to combine alliances with the best and most fashionable families of the day." Still the blood was scarcely "pronounced" enough to make much sensation, as it read rather like judicious crossing than anything very remarkable in any direct line. In the way of good looks, however, there was much to like; and there were a number of lengthy, handsome roomy cows, such as Pride of the Heath, Precedent, Paradox, and Garland, which would show well in any company. Of a very different style is the Royal first Lady Lavinia, a short podgy patchy butcher's kind of beast, with a broad back, and plenty of good flesh, but a bad mover, and utterly devoid of anything like elegance or fine character. Nevertheless the picked lot of all would seem to have been Royal Butterfly 20th, "on which Mr. Garne retains the right to make one bid," Mr. Strafford's instructions being, by the catalogue, to sell all the others without reserve. At Taunton, as we contended, Butterfly 20th, beat a better bull than himself, in Lord Sudeley's white Mandarin;

but at Oxford, the judges commended Butterfly, and took no notice of Mandarin, and in the West of England Society's own report, Mr. Savidge, the Shorthorn judge, spoke of Butterfly as "the grand roan," who "quite surpassed" the white, and "won point after point." Nevertheless since the Oxford Meeting Mandarin at Kidderminster took the first prize, and Butterfly 20th the second; and again at Stroud Mandarin was first and Butterfly second. There is some interest in such competition, as more handy home Mr. Garne has won plenty of prizes during the last two or three seasons. Mr. Hall, of the Heythrop, who presided at the Luncheon, felt he could accordingly offer his congratulations on the goodly company he saw assembled, but Mr. Strafford rather shook his head at this, and when examined it certainly did not look much like business. Beyond "old" Mr. Bowley as he was called, Mr. Mace, Mr. Gibson, Mr. Culshaw, Mr. Thornton, Mr. Sheldon, and the next door neighbour Mr. Savidge, there was nobody of much note in the Shorthorn world, and it was tolerably clear thus early that high prices would not prevail. Still there was a deal of hurrying, and one or two relays of visitors to be accommodated, but the spirit of the thing evaporated at this point, and the sale was a very dull one. The very shortness of keep deterred some, no doubt, from securing the bargains they might continually have had, and the crack lots hung almost as heavily as the less famous animals. Pride of the Heath, the first cow at Taunton, and the reserve at Oxford, was knocked down to Mr. Savidge for 77 gs., so that, as was remarked, "she will not have far to go," while Lady Lavinia, the best cow at Oxford, realized 75 gs., also booked to Mr. Savidge, and Duchess of Towneley, a merely commended cow at Oxford, still to Mr. Savidge, at 85 gs. It was our impression at the time that both the cow and the two-year-old heifer classes of this year's Royal Show were but indifferently appraised, and the result of this sale tends to strengthen such an opinion, as the best of the three by the judges' books was the worst of the three by the auctioneer's return. With the competition, however, so slack and so few really good buyers present, we are not inclined to give too much weight to these figures, and there seemed to be an impression abroad that some of the best animals were not sold. At any rate it is clear enough that neither at Churchill Heath nor at Broadmoor will the Shorthorn be henceforth quite banished, for there was our view during the day a good, lengthy, high-quality bull, from Warlabey, called Royal Benedict, that the father and his two sons have hired amongst them of Mr. Booth for a couple of seasons. So that even if Butterfly 20th were gone there is something to fall back on; but no one ever came near the 150 gs. reserve, so that "the grand roan" and the white may fight their battles o'er again.

Mr. Strafford said he was not bordering on the grounds of romance, and the Heath and its surroundings would certainly promise a deal more in the way of feeding rabbits and finding foxes than in rearing or maintaining a herd of highly-bred cattle. But Mr. Garne has done great things with the material he has at his command, and it is to be regretted that he had not a better sale. Still, both the times and the seasons were against him, as even the railways did not serve as well as they should do. There was virtually no up train after four o'clock in the afternoon, and the business announced for one did not commence until past two o'clock. In our correspondent's report of the Butley Abbey sale there is a bit of wholesome advice—a kind of commercial ethic that cannot be too often or too forcibly impressed: "Mr. Robert Bond put up the first lot at the time advertised—a practice we earnestly commend to the notice of all auctioneers at all sales; why it should ever be departed from, or for whose benefit the clauses 'to a

minute, 'ten o'clock punctually,' 'one for half-past,' are inserted in farm sale advertisements we have yet to learn. The common result of all such useless notice is that the sale commences anything but punctually, and the business part of the company is kept waiting for the auctioneer in the morning, while people leave before the sale is concluded at the end of the day."

COWS AND HEIFERS.

Ruby, red and white, calved November 17, 1859.—Mr. Parker, 27 gs.
 Panacea, roan, calved in April, 1860.—Mr. Penson, 25 gs.
 Genius, roan, calved December 16, 1860.—Mr. Mace, 27 gs.
 Profile, roan, calved Feb. 14, 1861.—Mr. Reade, 25 gs.
 Pink 3rd, red, calved April 1, 1861.—Mr. Marjoribanks, 37 gs.
 Jantja Stb, white, calved April 6, 1862.—Mr. Baggs, 27 gs.
 Misfortune, roan, calved in October 1862.—Mr. T. Mace, 27 gs.
 Gazelle, roan, calved Jan. 23, 1863.—Mr. Penson, 27 gs.
 Rose of Spring, roan, calved in April, 1863.—Mr. Curtter, 37 gs.
 Precedent, roan, calved July 8, 1863.—Mr. T. Mace, 46 gs.
 New Novel, white, calved in August, 1863.—Mr. Allday, 26 gs.
 Paradox, red, calved Dec. 17, 1863.—Mr. T. Mace, 39 gs.
 Pandora, white, calved Feb. 14, 1864.—Mr. T. Mace, 38 gs.
 Miss Peel, red, calved in March, 1864.—Mr. T. Mace, 21 gs.
 Papier Mâché, red, calved in March, 1864.—Mr. T. Mace, 28 gs.
 Fairy Flower, roan, calved Aug. 9, 1864.—Mr. T. Raynbird, 30 gs.
 Moselle, roan, calved in January, 1865.—Mr. Baxter, 35 gs.
 Rose of Promise, roan, calved in January, 1865.—Mr. Raynbird, 27 gs.
 Delicacy, roan, calved July 15, 1865.—Mr. Keck, 31 gs.
 Pride of the Heath, roan, calved Aug. 1, 1865.—Mr. Savidge, 77 gs.
 Young Phantom, white, calved Nov. 11, 1865.—Mr. Savidge, 23 gs.
 Garland, roan, calved Nov. 7, 1865.—Col. Loyd Lindsay, 50 gs.
 Snowdrop, white, calved Dec. 5, 1865.—Mr. Parker, 24 gs.
 Bessy, white, calved in March, 1866.—Mr. Curtter, 44 gs.
 Duchess of Towneley, red, calved July 23, 1866.—Mr. Baxter, 85 gs.
 Jelly, red, calved Oct. 7, 1866.—Mr. Kimber, 35 gs.
 Patroness, roan, calved Jan. 26, 1867.—Mr. T. Mace, 35 gs.
 Lady Lavinia, red and white, calved Jan. 31, 1867.—Mr. Savidge, 75 gs.
 Pride of the West, red, calved Sept. 29, 1866.—Mr. Savidge, 41 gs.
 Gunilda, red roan, calved Oct. 3, 1867.—Mr. Scrattor, 33 gs.
 Nounpareil, roan, calved in November, 1867.—Mr. Curtter, 36 gs.
 Phœbe, red roan, calved Dec. 29, 1868.—Mr. Braggs, 22 gs.
 Penguin, red and white, calved Jan. 7, 1868.—Mr. Savidge, 37 gs.
 Rosa Niblett, red, calved Jan. 31, 1868.—Mr. Curtter, 50 gs.
 Lady Godiva, white, calved Feb. 26, 1868.—Lord Northwick, 40 gs.
 Pales, red and white, calved Aug. 5, 1868.—Mr. Savidge, 33 gs.
 Perdita, roan, calved Aug. 26, 1868.—Mr. Savidge, 29 gs.
 Patti, white, calved Aug. 30, 1868.—Mr. R. Woodward, 35 gs.
 Genevieve, red, calved Sept. 18, 1867.—Mr. Marjoribanks, 50 gs.
 Venus, white, calved Oct. 4, 1868.—Mr. Mace, 37 gs.
 Bertha, roan, calved Oct. 5, 1868.—Mr. Curtter, 40 gs.
 Medora, red, calved Oct. 7, 1868.—Mr. Betteridge, 24 gs.
 Valentina, roan, calved Oct. 22, 1868.—Mr. Serattor, 22 gs.
 Pink 6th, red roan, calved in November, 1868.—Mr. J. Woodward, 30 gs.
 Magic 7th, red, calved in November, 1868.—Mr. R. Garne, 34 gs.
 Rumour, white, calved Nov. 12, 1868.—Mr. Braggs, 19 gs.
 Prince of Jamaica, roan, calved Dec. 10, 1868.—Mr. R. Woodward, 22 gs.
 Genius 2nd, white, calved Dec. 16, 1868.—Mr. Mace, 18 gs.
 Violet, roan, calved Jan. 9, 1869.—Mr. J. Woodward, 30 gs.
 Passion Flower, roan, calved April 7, 1869.—Mr. R. Woodward, 21 gs.
 Nectar, roan, calved March 8, 1862.—Col. Loyd Lindsay, 30 gs.
 Pattern, roan, calved March 10, 1869.—Mr. Marjoribanks, 40 gs.

Marsala, roan, calved in March, 1869.—Mr. Mace, 20 gs.
 Jemima's Butterfly, roan, calved Aug. 22, 1869.—Mr. Parker, 31 gs.
 Nan Darrell, roan, calved Nov. 27, 1868.—Mr. Marjoribanks, 20 gs.

BULLS.

Rollo, red, calved Nov. 9, 1868; by A A (23253), dam (Routine) by Duke of Towneley (21615).—Mr. Allday, 27 gs.
 Referee, roan, calved Nov. 5, 1869; by Royal Butterfly 20th (25007), dam (Rose of Promise) by Pizarro (20497).—Duke of Marlborough, 30 gs.
 Ringleader, roan, calved Dec. 9, 1869; by Duke of Townley's Aid-de-Camp (23797), dam (Rebecca Niblett) by Cyuric, (19542).—Mr. Craddock, 50 gs.

SALE OF MR. CALESS' SHORTHORNS,
AT BODICOTE, BANBURY.

By Mr. H. STRAFFORD, ON WEDNESDAY, OCT. 12TH.

The weather was exceedingly unfavourable, there being a continued rainfall up till twelve o'clock, which no doubt kept numbers away. Mr. Cales has been known as a Shorthorn breeder for upwards of sixteen years, and in this locality has done much to improve the breed of cattle. Fifty years ago, the stock in this neighbourhood was principally bred from Heretords, Welsh, and other older breeds, but Shorthorns have gradually taken the place of the less improved breeds; so that now in Banbury market nine-tenths of the cattle are Shorthorns or at least Shorthorn crosses. Mr. Cales' stock was shown in useful store condition; the older cows seemed to be in good breeding order, and a number of them showed capital milking properties. Most of the younger animals were got by Huntsman, who has distinguished himself in various show-yards, and they showed a good deal of style, substance, and nice hair. Amongst the cows and heifers Autumn Queen, red, calved October 12, 1866, got by 3rd Grand Duke, made 60 gs., sold to Mr. H. J. Sheldon, of Brailes, and Kathleen, red and white, calved March 18, 1868, got by Wellington, 52 gs., to Mr. Brown, Hull; while none of the other 32 lots reached as high as 30 gs. Of the bulls, Huntsman, roan, calved November 29, 1863, got by Dusty Miller, made 42 gs., for Mr. Bygrave, Aynhoe; Best Boy, roan, calved November 26, 1865, got by White Chief, 37 gs., to Mr. H. J. Sheldon; and Gladstone, red and white, calved May 9, 1867, got by Huntsman, 70 gs., to Mr. Hall, Barford; none of the other bulls reached to 30 gs. The 34 cows and heifers made in all 792½ gs., at an average of about £24; and the 17 bulls 357½ gs., at an average of £21.

THE RANBY SHORTHORN SALE.—By Mr. JOHN THORNTON.—The late Mr. D. Prime Walesby's stock of Shorthorns and sheep were brought to the hammer on Tuesday, the 27th of September. Although a man of good judgment and a practical farmer, he never went much out of his way to obtain first-class stock. His cattle were, with one exception, raised during a lifetime of fifty years, with the use of good bulls, and out of the 70 head only one family, the Junos, had been bought in. Bulls from various breeders and of every variety of blood were purchased as required; consequently the stock were not of that fineness and quality that is often seen, nor did they command much attention out of their own district. They were brought out, considering the season, in very fair condition, and were large, useful, rather coarse cattle, many of them of the old yellow tinge. Each cow had a calf at foot, and the calves often excited more competition than the dams; for instance Red Juno, sold for 27 gs., and her nine-months roan bull-calf, made the same price. The highest-priced cows made 35 to 40 gs., and some of the two-year-old heifers reached also to fair figures; while the yearlings sold pretty well, and Woodman, a two-year-old bull of Messrs. Dudding's breeding realized 44 gs. The seventy head of cows, heifers, calves, and bulls averaged £25 8s. A pair of young horses fetched 80 gs.; and a flock of Lincoln sheep, which were somewhat low, fetched a few shillings over market value. The district for miles round had experienced two bad seasons, so that there was not that demand there otherwise might have been.

SALES OF SHORTHORNS,

BY MR. JOHN THORNTON.

MR. W. BUTLER'S HERD, AT BADMINTON, OCT. 5.

Badminton was wrapped as it were in a winding-sheet of mist as we entered the "pretty village, dotted with neat cottages and gay flower gardens." Mr. Butler's farm, under the Duke, and adjoining the park, lying in the centre of it. The cattle were grazing in the small fields at the back of the house and immense farmyard, the scanty bite was helped out with here and there a small bundle of hay. The cows, however, showed the effects of good management and careful treatment from calfhood, and might be called a useful though somewhat uneven lot. Old Darlington 10th, a 45 gs. calf, purchased at Mr. Sainsbury's sale in 1856, and own sister to the celebrated 300 gs. Darlington 6th, was conspicuous among them by her fine character and great size; with crumpled horns, huge cushioned rumps, and a fine quality of flesh and hair, she was as good a specimen of a Shorthorn as one often meets. Oxford Bride was also a pretty cow, and evidently of great profit, or Mr. Butler described her when in the ring "a real good 'un." The three-year-old heifers were admirable, but neither the two-year-olds nor the yearlings, save three or four, showed to very great advantage. By far the best portion of the stock were the heifer calves; placed in a comfortable straw-yard they were certainly not only one of the prettiest but one of the best lots we ever saw, and were brought out in the height of bloom and beauty. They were mostly rich roans, full of long hair, even in character, and the very pink of condition. Promiscuous as the original selection of cows might have been, a master mind and fine management had evidently been at work, and the young stock gave promise of what might have been a very first-class stock of cows in a few years. The mist hung so thick that the Duke's circular tent was scarcely visible 30 yards off, but a tingling bell told luncheon was ready, though we were sorry to see a magnificent spread for three hundred, with scarcely two hundred to enjoy it. Tethbury mop and three local sales attracted part of what would have been a very large company, but soon after two the ring was encircled with evidently half a thousand people. Col. Kingscote presided, and, after the loyal toasts, proposed Mr. Butler's health, and alluded in touching terms to the death of his eldest son, "Tom Butler," a young man, who was not alone esteemed by his associates, but who had given evidence of great promise. A drag, with the young Marquis of Worcester, Col. Kingscote, and some of the company, was drawn to the ring side, when the proceedings then commenced.

Old Darlington the first lot was put in at thirty and went away quickly to fifty, then Mr. John Thompson, the Duke's agent, bid against Col. Kingscote's steward Burnett to 65 gs., and the glass ran to the astonishment of the company at an old fourteen-year-old cow selling so high. Mr. Burnett, however, got her, and several of the best lots for, as it afterwards turned out, for Mr. Pavin Davies, who has removed from Wales and taken a farm a few miles off Badminton. Some of the other cows were doubtful, and much satisfaction was expressed by the company at the straightforward manner in which these particulars were announced. Oxford Bride drew bids from several quarters, and at last Mr. Lord got her for the Marquis of Lansdowne. Badminton Girl, a large fine cow with evidently a couple of quarters gone, went, as a local expressed it, to "some one who didn't want milk," but she had bred well, and Mr. Gibbon secured both her progeny at cheap prices; they go to Westmoreland. Mr. H. Mousell bought a good cow in Unity 2nd, descended from Mr. Cottrell's stock, and the entrance of Ursula 16th and her roan bull calf made a little talk. She was a purchase at Didmorton, and many bid for her; at last Mr. Long (for Lord Fitzhardinge) got in and bought the cow at 45 gs.; the calf was put up at 5 gs., but some of the farmers in the neighbourhood wanted the breed, so Mr. Long was run up to 17 gs. for it. Lavender 8th was a particularly nice-formed cow with arched ribs, and closely resembled her sister Lavender 9th. They were both bought for Mr. Cruikshank, as well as their two heifer calves, and go to swell the great Sittington herd. Darlington 13th, a level true-made animal, rather plain in colour, was the best milker in the herd. The biddings went on languidly between Mr. Burnett, Mr. Thompson, and Mr. Piere (who was buying for his estate in California) up to a hundred,

and the company cheered: "Go on again," said Mr. Piere, "one" other which meant "five," and the glass ran; so she leaves the country in December. He got a good companion for her in Oxford Rose, ten months younger and at half the money. The next, Darlington the 14th, a thick compact red heifer, had the cross of the Marquis of Oxford, and as the company wanted the next lot, which was out of lot one, she went cheap to Mr. Turner, of Lincolnshire. The 15th had plenty of hair and a very pretty calf, and in calf again, so she went merrily along to a hundred, and more cheering when Mr. Burnett got her. A white Darlington 16th, sister to the 14th, was of very elegant form, and dam of a nice bull calf. She was a cheap lot to Mr. Thompson at 85 gs. But Darlington 17th was the lot of the sale; of beautiful form, and full of rich roan hair, she might have been a trifle fuller in girth and a little more feminine in the head, a fault pertaining to the tribe. Mr. Burnett and Mr. Piere, after bids for Mr. Cochrane, fought it out to 155 gs., at which price she joined her dam; Mr. Piere taking the next Darlington out of the 13, and a thick red heifer, destined for Col. Kingscote's Third Duke of Clarence, at 125 gs. One of the best calves out of lot 6 was fit to enter a show-yard, and Mr. Pybus takes her into Monmouthshire cheap enough at 54 gs. Her companion, Miss Minnie 7th, goes to Canada, but Darlington 19th, a five months' calf, nearly doubled the price her grandmother made at the same age fourteen years before. Capt. Blathway's Lord Collingham, a pure Bates bull of the Fidget tribe, was in great demand, and bids went well along up to 115 gs., when Mr. Sharp took him for Lord Aylesford's herd at Packington. Count Bickerstaffe 2nd, although a nice bull, was not a promising sire, and went the way of all flesh at 40 gs. The Darlington bull sold well at 51 gs., but for the others the competition was very dull; two steers made 38 gs., and the *Herd Book*, handsomely bound, 20 gs. The proceedings closed soon after four o'clock. Total, £2,531 17s. Average of 74 head, £38 5s.

THE LATE MR. WILLIAM HEWERS HERD.

AT SEVENHAMPTON, WILTS, OCT. 6TH.

The white mist never cleared off, and hung thick all through Gloucestershire, and in the "happy valley" of Sevenhampton, as the strangers drove up the day after the Badminton sale from Swindon Station. Early visitors, however, dropped in to look well over the pigs; for the late Mr. Hewer had founded his stock reputation more by them than Shorthorns and sheep, though he had years ago shown both with success. The Berkshires, however, had carried all before them, and won about 116 prizes, including several firsts at the Royal. He had always been very careful to select the best-looking, and to use the best blood. Sir W. Throckmorton's, Mr. Edmonds', Mr. Smith's, and Mr. Withers' had all been dipped into, but lately he rarely went much from home. Although he exhibited at Oxford, the pigs were evidently not got up, and indeed many might have been fresher, but they had all fine form, good heads and backs, and were well on their legs; a few, however, fancied they might have been longer. But they sold amazingly. The first sow, Jessie, four years old, with ten suckers at her side, went cheapest at only 16 gs. for Mr. Beattie. Witch, eighteen months old and in pig, fetched 19 gs. (Hon. C. W. Fitzwilliam), and her own sister, Waif, 17 gs. (Mr. Beattie). Four young sows, farrowed in January, out of Sister to Jessie, fetched 52 gs., and seven, five months old, out of Witch, 79½ gs. The Earl of Lisburne (2) a sow and a boar, Mr. Chas. Leney, Kent (3), Mr. J. W. Larking, Sussex (4), Mr. W. Watts (4), Lord Chesham (2), J. Beattie, Annan (6), Mr. H. C. Pole Gell (2), Mr. T. Arkell (2), and Mr. H. Humfray (2) were the principal buyers. A nine-months boar fetched 21 gs. (Mr. J. W. Clark). Mr. W. Looker got one at 16 gs., seven months old, and the Rev. W. Bailey, one four months old at six guineas. The forty pigs realized £459 18s., or an average of £11 10s., which is probably the highest price that has ever yet been realized for a similar lot of Berkshires.

The Shorthorns were as devoid of fashionable element as they were full of useful qualities. Bred for thirty years with the greatest care towards quality and milk, the best of bulls, generally with Booth blood, had been used. The season was much against their appearance, as it was against people buying and the sellers' interests as well, although the cows made

fair prices, from 20 to 38 gs. Two very fine roams were bought to go to Scotland, and five useful cows to Surrey. The two-year-olds went up to 28 gs., and the yearlings, low in condition, sold better; but for the calves—a very hairy, pretty lot—the demand was good, and three Epitaph calves, two, five, and six months old, made 13, 17½, and 15 gs. Three aged bulls went at butchers' value, but Bothwell, a two-year-old, and a purchase from Aylesby, fetched 71 gs. (Mr. S. Beattie). The competition for the bull calves was equal to the demand for the pigs, as they sold remarkably well, up to 25 and 25 gs., and the last of all the three-months-old fetched 32 gs. from Mr. H. Dunn, who bought several lots. Considering the state of condition, the bad season, and scarcity of grass, not to mention the three bad years farmers have had in the district, the sale must be taken as a good one, the eighty head making nearly £2,000, or an average of £22 6s.

THIRTY DRAFTS FROM LADY PIGOT'S HERD. AT BRANCHES PARK, OCT. 7TH.

This sale took place on account of two of the farms being given up at Branches, and Messrs. Newson and Stanley, of Bury, sold off first the implements and afterwards the Suffolk horses, Shropshire sheep, and pigs. The cattle could be called scarcely anything but drafts, though there were a few desirable lots in the catalogue, five of which belonged to Mr. J. Burgess. Old Polyxena never came in, being too lame, and Princess Patrick was the first to make anything over market price; she went to 55 gs. La Belle Helene, own sister to Lady Anne, and the winner of several premiums, was in show-yard condition, but scarcely what might be called a first-class animal. Mr. Gibson who buys for America, and Mr. Howsat beside each other but neither of them bid, so the fight was between Mr. Martin, of Littleport, and Mr. Angerstein, M.P., who got her at a 100 for his Norfolk estate. Lady of Branches, a very handsome two-year-old, with a beautiful bosom, made 80 gs. (Mr. Angerstein, jun.) and was the only one of Mr. Bruere's stock that went to anything like an extra price. Mantalini 2nd, with a good thick body but a plain head and horn, the prize calf of last year, and a 70gs. purchase at the Rugby Sale 1868, was put up at 100 gs., and after some few bids fell to Mr. Angerstein, jun., at 160 gs. for his Ashby St. Leger's estate, Rugby. Mr. Angerstein, jun., also took Pele at 75 gs., and Imperial Rose 3rd, a handsome rich roan hairy calf, was bought for Mr. H. F. Smith, of Hull, for 56 gs. The bulls must be called only a second rate lot, and two out of the dam of Lady Anne fetched respectively 27 and 31 gs. None of the bulls put up for hire were let, and the thirty sold averaged nearly £10. The horses sold fairly, and some of the sheep and pigs well. A very large company witnessed the proceedings, which were over in good time. Total, £1,173 18s.; average of 30 head, £39 2s. 7d.

THE BUTLEY ABBEY SALE.

BY MR. R. BOND.

Mr. Crisp died in February, 1869. In the following July some of the choicest of his breeding animals were sold by auction, the executors retaining a portion for the final sale when the farm was to be given up. This took place in the last week in September, and the 1,280 lots in the catalogue give some idea of the extent of the occupation the late proprietor had in hand at the time of his death. No little credit is due to the auctioneer for getting through his labours in three days. On this occasion Mr. Robert Bond put up the first lot at the time advertised—a practice we earnestly commend to the notice of all auctioneers at all sales; why it should ever be departed from, or for whose benefit the clauses "to a minute," "ten o'clock punctually," "one for half past," are inserted in farm sale advertisements we have yet to learn. The common result of all such useless notice is that the sale commences anything but punctually, and the business part of the company is kept waiting for the auctioneer in the morning, while people

leave before the sale is concluded at the end of the day. The catalogue embraced nearly 100 horses, more than 100 head of cattle, 150 breeding pigs, and 2,000 sheep, besides the usual effects in dead stock, in addition to which there was an infinity of articles of machinery, scientific and practical, the like of which few have seen collected in one man's lifetime. Such a sale was pretty sure to attract a large attendance, and on Wednesday the company must have numbered thousands—a vast portion of which were more likely to try the temper of the auctioneer than to inspire hopes of spirited competition. The agents of Lord Derby, Lieut.-Colonel Wilson, and a few others were there, however, to give hopes of better things, and most of the Suffolk breeders were personally represented; but the knowledge that the best of the horses and cattle had been already disposed of kept many away, and hence the average prices made by the horses were nothing extraordinary. The highest priced mare was bought by Mr. Garrett—a thick-set short-legged animal, well worth what she made—66 gs. Diamond, a four years old, said to be in foal, a daughter of Wolton's Warrior, as fine a stamp of a cart mare as one wants to see, was bought by Mr. Toller for 55 gs. Mr. Loft, who bought freely at the Newbourn Hall sale, secured Depper at 40 and Doughty at 46gs., both in foal, as well as the seven-year-old Diamond for 56gs. This was the second-prize mare at Sudbury, and the dam of the first-prize foal at the same show, sold at this sale to Col. Wilson for 51gs. He is by the noted Cupbearer, and is likely to be seen at many a show in future, where, in the hands of his new owner, he should be a winner. Mr. Wilson, of Bayham Hall, and Mr. M. Sexton, of Wherstead, were the other principal bidders. The ten best mares made an average of about £45 each. The old Cretingham Rookery mare (13 years old), a three-years-old winner at Framlingham, and a 70gs. purchase at Mr. Barthropp's sale, made only 24gs., and her yearling filly was bought by Mr. M. Biddell for 29gs., both likely bargains. One great drawback to the sale of the mares was their being in foal to a very ordinary horse, a son of old May Duke; for although the foals and yearlings were by Mr. Garrett's celebrated horse Cupbearer, none of the mares were covered by him. The highest priced stallion was the three-year-old Captain, knocked down to Mr. Packard at 90 gs. A yearling Cupbearer made 44 gs., and a two-year-old something less.

The Shorthorns made no more than dairy or grazing prices, but the pigs seemed in greater force than ever, especially the blacks. The highest priced white Norfolk sow fetched 20½ gs., and was bought by Mr. Packard, Mr. Copeman giving 15½ gs. for another, and Mr. Long bought one lot for 10½ gs., nine of the best of these averaging about £10 each. Mr. Packard gave 18 guineas for the best small breed white boar, and Lord Rendlesham bought one at 8 gs., and another at a less figure. Perfection, the 18-guinea purchase, was a very good animal, though with hardly width enough about the jawl. The black sows were, if anything, better than those sold last year. The prices for them on Thursday were 31, 21, 19½, 17, 15½, 15, 14, &c.; the ten best averaging something like £17 each, the whole lot offered, 24 in all, making just upon £10 each. The highest priced sow was bought by Mr. Barthropp (a commission), at 31 gs. Mr. Harding (Kent), gave 21 gs. for a 10 months sow, perhaps about the best animal offered that day, and Mr. Herman Biddell secured the fellow to her at 15½ guineas. Mr. Sexton, always ready to add a real good thing to the Wherstead herd, bought one of the best at 17 guineas, as well as the dam of Mr. Harding's, Mr. Barthropp's, and Mr. Biddell's purchases, a grand 2½ years old sow, likely enough with a Wher-

stead boar to breed a similar lot. The other purchasers were Messrs. Prout, Cordy, Coleman, Westhorpe, &c. The black boars ranged from 17 gs. downwards—the highest price being given by Mr. Barthropp for Mr. Johnson; the same buyer for some one else, another at 14½ gs.; then follow Mr. Herman Biddell at 11½ gs., Mr. Cornish at 11 gs., and others at a shade less. The other buyers were Messrs. Copeman, Claxton, Duckering, Wolton, Pettitt, &c. Neither Mr. Stearn nor Mr. Manfred Biddell seemed very much inclined for the Butley cross, although the former ran close up for the 18 gs. Perfection and the latter for one or two young pigs of the black breed. The ten best averaged £11 each. A herd like this is not easily bred, bought, or collected together by any means, but the large number of good animals, boars and breeding sows, scattered broadcast over the country, must soon make their mark in the general character of the swine of the district to which they are sent. We were glad to observe that many of 7, 8, and 10 guinea boars were bought by tenant farmers; not breeders for the showyard, but by those who begin to see the value of the showyard pig for practical purposes—that is, for crossing and improving the farmer's stock who breeds for profit as well as for competition.

The sheep were sold on Friday. Many years ago Mr. Crisp stood high in Southdowns. At the early meetings of the Royal Agricultural Society he took first for old and shearing rams. Since then he kept a very pure Sussex-like flock, but had not exhibited for many years previous to his death. The ewes were of a very nice character, but fetched little more than market prices.

SALE OF SHORTHORNS AT KEITH-MORE, N. B.

Mr. Cantlie's second annual sale of Shorthorn bull-calves and surplus cows and heifers took place at Keithmore, Dufftown, in the uplands of Banffshire.

BULL CALVES.

- McMahon, red and white, calved March 10, 1870.—Mr. Thomson, Tynett, Fochabers, 23 gs.
- Norwood, roan, calved March 27, 1870.—Mr. McLennan, Meikle Urchany, Nairnshire, 26 gs.
- Crown Prince, red, calved January 24, 1870.—Mr. Edwards, Birchfield, 24 gs.
- Bazaine, roan, calved March 16, 1870.—Mr. McLennan, 20 gs.
- Bismarck, roan, calved February 23, 1870.—Mr. Bruce, Burnside, 24 gs.

ONE-YEAR-OLD HEIFERS.

- Prize Rose II., calved July 5, 1869.—Mr. Simpson, Clunymore, 18 gs.
- Rosebud, red, calved June 5, 1869.—Mr. Garland, Cowbythe, Fortsoy, 17 gs.

TWO-YEAR-OLD HEIFERS.

- Rosie, roan, calved April 4, 1868.—Mr. McLennan, 30 gs.
- Clara, red, calved April 26, 1868.—Mr. Wilson, Auchindachy, Keith, 26 gs.
- Dowry III., red, calved March 16, 1868.—Mr. Allan, Grummondlach, Ross-shire, 26 gs.

COWS.

- Tibby, roan, calved January 13, 1866.—Mr. Allan, 21 gs.
- Daisy, red and white, calved March 21, 1866.—Mr. Allan, 26 gs.
- Premium V., calved April 28, 1861.—Mr. Grant, Pans, Elgin, 22 gs.
- Jessie, red and white, calved March 1, 1861.—Mr. Dawson, Cairnie, 20 gs.

HEIFER CALVES.

- Jeanie Deans, roan, calved March 22, 1870.—Mr. Gordon, Tullochallum, 17½ gs.

- Eugenie, roan, calved January 12, 1870.—Mr. Allan, 22 gs.
- Mavis, roan, calved February 26, 1870.—Mr. Bruce, 21 gs.
- Dolly, red, calved April 20, 1870.—Mr. McWilliam, Stonyton, 16½ gs.
- Premium IV., roan, calved April 28, 1870.—Mr. Stewart, Newton, Rothes, 12½ gs.

POLLED BULL.

- Tommy Dodd, calved May 6, 1870.—Mr. McDonald, Shenvil, Cabrach, 15 gs.

SHEEP SALES AND LETTINGS

KILHAM ANNUAL SALE OF SHEEP.—The stock brought forward consisted of about 2,200 ewes, gimmers, and dimmots from the farms of Kilham, Mindrum, West Newton, and Yeavinger. The sale commenced shortly after two o'clock with the Kilham half-bred ewes. The following were the averages:

	1870.	1869.
Kilham half-bred ewes	45s. 0d.	38s. 8½d.
Mindrum Leicester ewes	46s. 10d.	41s. 9½d.
Yeavinger half-bred ewes	44s. 0d.	38s. 7½d.
West Newton half-bred ewes.....	44s. 6d.	—
Yeavinger Cheviot ewes.....	27s. 10d.	25s. 2½d.
Kilham half-bred gimmers.....	38s. 11d.	36s. 0d.
Mindrum three-parts-bred gimmers	47s. 7½d.	41s. 5d.
Mindrum Leicester gimmers.....	45s. 0d.	42s. 6d.
Yeavinger & West Newton h.-b. gimmers	37s. 10d.	—
Kilham half-bred dimmots	48s. 4d.	57s. 0d.
Yeavinger & West Newton h.b. dimmots	43s. 3d.	42s. 0d.

The ewes sold at about 6s. 6d. a head above the prices obtained last year, and the other kinds from 2s. 6d. to 3s. above last year. The total sum realised was £5,100 6s. 6d.

THE WESTDEAN SOUTH-DOWNS.—This flock, the property of Mr. C. Waters, who is about to quit Westdean Farm, was sold by auction by Mr. S. Southerden. The flock was bred from ewes selected from the flocks of J. Fitcher, R. Woodman, T. Saxby, T. Cooper, J. S. Turner, and W. P. Ashby; or crossed by rams bred by the late J. Webb, and have since been crossed by rams from the flocks of W. Rigden, Messrs. Ilesman, R. Boys, and the late J. Waters. The severity of the summer had not been without its effect upon the condition of the sheep, especially the older classes. Full-mouthed ewes: Four lots of five were severally sold to Mr. P. H. Ellis, Clayton Court, at 45s., and to Mr. Tickner, Boreham-street, at 43s. (three lots). Thirteen lots of ten were sold to Mr. R. Brown, Allington, at 42s. 6d. and 39s.; Mr. Paige, Ringmer, 36s. to 38s. 6d.; Mr. Faxton, Willington, 37s. to 40s.; Mr. P. H. Ellis, 38s. 6d.; Mr. Caffyn, Cuckfield, 37s.; Mr. T. Baumister, Hayward's Heath, 37s. 6d.; and Mr. Hobbs, Newhaven, 37s. Two lots of twenty were bought by Mr. Matthews, Ranscombe, at 37s., and Mr. W. Bannister, Lindfield, at 35s. 6d. Six-tooth ewes: Four lots of five were severally sold to Mr. Heasman, Angmering, at 45s. (two lots); to Mr. Ticker, at 43s.; and Mr. W. Bannister at 42s. Seventeen lots of ten were sold to Mr. W. Bannister at 37s. to 40s.; to Mr. R. Brown, Allington, at 37s. to 44s.; Mr. R. Breton, Westham, at 39s.; Mr. Hobbs, Newhaven, 37s. and 39s.; Mr. J. Homewood 36s.; and Mr. Faxton 35s. 6d. Four-tooth ewes: The four lots of five were sold to Mr. E. Cane, Berwick, at 60s.; to Mr. W. Rigden, Hlove (who bought for Mr. Perkins, of Thripton, Cambridgeshire), at 45s. and 48s.; and to Mr. Groom at 46s. Seventeen lots of ten were severally sold to Mr. Humphrey, Ashington, at 52s.; Mr. Rigden (for Mr. Perkins), at 41s.; Mr. J. Homewood at 40s. and 45s.; Mr. G. Hudson at 43s. to 45s.; Mr. W. Bannister at 42s. 6d. to 45s.; Mr. T. Cooper, Norton, 46s.; Mr. J. Kent, Southeaste, 46s.; Mr. Brown, Allington, 43s.; and Mr. Hobbs 40s. Two-tooth ewes: The four lots of five were sold to Mr. J. Saxby, Northeast, at 66s. (two lots); Mr. E. Cane, Berwick, at 65s.; and Mr. T. Saxby, Firlie, at 63s. Twenty lots of ten were purchased by Mr. R. Evans at 43s. and 54s.; Mr. Brown, Allington, at 47s. to 59s.; Mr. W. P. Ashby, Eastdean, 52s. 6d. to 65s.; Mr. J. Filder, Jevington, 48s. and 50s.; Mr. W. Bannister, 48s. to 51s.; Mr. J. Saxby 53s.; Mr. Rigden (for Mr. Perkins) 52s.; Mr. Graysmark (for Mrs. M. Marshall, Godalming) 51s.; and Mr. Groom, Folkington, 47s. Stock

ewe lambs: Four lots of five to Mr. E. Cane at 10s.; Mr. J. Saxby 30s. and 32s.; and Mr. J. Filder 31s. Ten lots of ten to Mr. Cooper, Eastbourne, at 25s. to 27s.; Mr. H. Waters, Essex, 26s. and 30s.; Mr. W. Saxby, Rottingdean, 27s.; Mr. F. Noakes, Rodmell, 32s.; and Mr. R. Woodman 28s. Five lots of twenty were sold to Mr. R. Brown at 26s. and 27s.; Mr. Cooper 26s.; and Mr. G. Hodson 25s. Rams: Six-tooth ram, sire bred by Mr. Heasman, 7 gs., Mr. B. Waters, Moteombe; ditto, 5½ gs., Mr. Hodson; ditto, 30 gs., Mr. Waters; ditto, sire Mr. J. Waters's ram, h. c. at Plymouth, 11 gs., Mr. Hodson; ditto, £6, Mr. Cooper; ditto, 5 gs., Mr. Cooper. Four-tooth ram, bred by Mr. Ashby, 4½ gs., Mr. Hodson. Two-tooth ram, sire a Boy's ram, £4 10s., the Earl of Haddington; ditto, £4 14s. 6d., Mr. Hobbs, Newhaven; ditto, £7, the Earl of Haddington. Ram lambs: These possess blood from the flock of J. Webb, W. P. Ashby, and J. Waters, and were sold at the following prices—Mr. G. Hodson 4½ gs. to 17 gs.; Mrs. Marshall, Godalming, 6 gs. and 7 gs.; Mr. J. Gorrage, Eastbourne, 15 gs. for eight; Mr. Mockett, Crowlink, two at 5 gs. each; Mr. J. Filder 5 gs. and 6 gs.; and Mr. H. Waters 1½ gs.

THE LATE MR. LONG'S HAMPSHIRE DOWN FLOCK, at Overton, Marlborough, by Mr. Marsh. The flock consisted of 2,000 ewes and chilver lambs. The two-teeth ewes were sold in lots of twenty, and the highest price obtained was 41s. a head, the lowest 27s. Several lots made 40s., 36s., 35s. 6d., 35s., and 34s. a head. The four-teeth ewes ranged from 43s. (at which two lots were sold) to 31s. Some of the intermediate lots realized 42s., 41s. 6d., 40s., and 38s. 6d. a head. The highest price for six-teeth ewes was 50s., the lowest 28s.; other lots were knocked down at 45s., 43s., 42s. 6d., 41s., 40s. 6d., 39s., and 37s. 6d. a head. The chilver lambs, which were small, ranged from 29s. to 15s. 6d. a head. The dead stock, oxen, horses, and hay were sold on Wednesday. The cart-horses particularly fetched good prices, realising respectively 42gs., 40gs., 39gs., 38gs., 37gs., the average being just upon 30gs. The working oxen averaged £41 10s. per pair, the highest price being £48.

SALE OF HAMPSHIRE DOWNS.—Messrs. Ewer and Winstanley sold by auction, on the premises at Bishopsdown Farm, 700 ewes and lambs, and seven rams, the property of Messrs. Holloway, who are quitting the farm. The whole of the sheep were of the Improved Hampshire Down breed, and were descended from the stock of Mr. Rawlence, Mr. Dibben, the late Mr. Waters, of Stratford, and other eminent breeders. The sale was attended by a very large number of the agriculturists of the district. 177 chilver lambs realized prices varying from 27s. per head down to 20s. The four-teeth ewes were sold at prices ranging from 38s. 6d. to 29s. 6d.; the six-teeth ewes sold at 37s. 6d. to 32s.; the full-mouth ewes ranged from 33s. 6d. to 27s.; the two-teeth rams at from 50s. to 42s.

THE CORSKIE LEICESTERS.—A displesh sale of the whole flock of sheep, the property of Mr. John Hannay, Corskie Bank, Banff, took place on the farm at Corskie. The stock included 70 ewes, 55 ewe lambs, 37 gimmers, 32 shearing tups, 2 two-year-old tups, and 45 tup lambs. The average price of 34 shearing rams was £43s. 6d., the highest price being £11. The tup lambs averaged £2 3s. 4d., the highest price being £6. The ewes averaged £3 5s. 9d., the highest price was £7 10s. The ewe lambs averaged £2 9s. 2d., the highest price was £3 17s. 6d.

MESSRS. SYMES' HAMPSHIRE DOWN FLOCK.—This flock, the property of Messrs. J. and G. Symes, who are about to leave St. Giles' Farm, Cranborne, was sold on Oct. 8th. It comprised about 1,800 ewes and lambs. Mr. J. Waters, of Salisbury, was entrusted with the sale. The first of 28 lots of chilver lambs were turned into the ring. The highest price realized was 36s.; the lowest 16s. a-head, the average being about 26s. The wether lambs averaged 21s., and the two-teeth ewes about 33s. a-head. The highest price was 48s., and the lowest 29s. The four-teeth ewes ranged from 42s. to 34s., the average being about 38s. a-head. Six-teeth ewes sold at from 44s. to 39s. a-head, and made an average of about 40s. 6d. One lot of full-mouthed ewes sold at 45s.; the others realized 40s. and 39s. a-head, the average being 40s. Cull ewes and wethers averaged 40s. Average of all the ewes, 38s. One lot of dry cull ewes made 46s. a-head; others 41s. and 40s. The ram lambs fetched about 3 guineas a pair; and one ram made £5 10s.

RAM SALES AT BARTON FAIR.—A large number of rams were offered for sale by auction. Messrs. Moore and Hill, of Cirencester, sold nine shearlings, bred by Mr. Fowler, of Aston Farm, at an average of £7 1s. 5d., and some bred by Mr. T. Clarke at an average of £5 15s. 6d. Mr. J. Villar sold Cotswold rams from the flocks of the following breeders and at the subjoined average prices: Mr. E. Handy, Sierford, £7 9s.; Mr. G. Fletcher, Shipton, £7; Mr. W. H. Fletcher, Shipton, £6 12s.; Mr. T. B. Browne, Salperton, £7 1s.; Mr. W. Smith, Bibury, £7 10s.; Mr. W. Jones, Pegglesworth, £6 8s. 6d.; Mr. J. Humphris, Hawling, £4 14s. 6d.; and Mr. H. Cole, Ashbrook, £6 6s.; also Oxford Downs from the flock of Mr. C. Hobbs, Maiseyhampton, £6 10s., and from Mr. G. Wallis, Bampton, £9 2s.; and Shropshire Downs from the flock of Lord Sudeley, £5 15s. 6d.

PERTH ANNUAL SALE AND SHOW OF RAMS took place on Wednesday, Sept. 28. The stock comprised 360 Leicester shearling rams, 15 Cotswold and Shropshire down rams, 40 Leicester tup lambs, 40 blackfaced rams and tup lambs, and 270 Leicester ewes, gimmers, and ewe lambs. The Leicesters were from the principal breeders in the counties of Perth, Forfar, Kincardine, and Kinross. The following are the average prices made for the principal lots, viz.:—Mr. Taylor, Redcastle, £5 0s. 6d.; Mr. Halley, Dornock, £2 19s.; Earl of Dalhousie, £6 15s.; Mr. Rae, Haddo, £4 11s. 3d.; Mr. Cowie, Balhousie, £6 19s. 4d.; Mr. Johnston, Cairnpeg, £5 5s. 10d.; Mr. Fenwick, Leadkeltie, £3 1s. 2d.; Mr. J. Maxton Grahame, of Redgorton, £5 1s. 5d.; Mr. Muirhead, Durdie, £3 16s. 1d.; Mr. Flockhart, Annocroich, £3 8s. 6d.; Mr. Lyall, Old Montrose, £5 12s.; Messrs. M'Glashan, Cleavage, £2 11s. 3d.; Mr. Hart, Kirklands, £3 7s. 7d.; Mr. Ruxton, Farnell, £6 14s.; Mr. Wedderspoon, Masterfield, £6 12s. 6d.; Mr. Goodlet, Bolsham, £5 13s.; Mr. Smith, Balmain, £3 10s.; Mr. Baptie, Hardwoodburn, £3 8s.; Mr. Fergusson, Kinnochey, £5 10s. 5d.; Mr. Gold, Marthly Home Farm, £4 3s. 7d.; Mr. Somerville, Carey, £3 17s.; Mr. Bell, Glentarkie, £3 3s. 6d.; Mr. Gardiner, Chapelbank, £4; Mr. Whyte, Muirhead, £3 17s. 6d. Leicester ewes and gimmers—Mr. Whyte, Muirhead, £3 0s. 4d.; Mr. Rae, Haddo, £2 4s.; Mr. Gorrie, Inverdunning, £2 1s. 2d.; Mr. Lyall, Old Montrose, £2 7s.; Mr. Gold, Murthly, £2 10s. 9d.; Mr. Taylor, Redcastle, £2 4s. 6d.; Mr. J. M. Grahame, Redgorton, £2 4s. 10s.; Mr. Buist, 'Ormiston, £2 8s.; Mr. Gardiner, Chapelbank, £2 2s. 3d.; Mr. Fenwick, Leadkeltie, £1 18s. 6d. Blackfaced rams—Mr. Archibald, Overshiels, £3 2s. 1d.; Mr. Williamson, Lawers, £4 2s. 6d.

SALE OF FAT STOCK.—The cattle fed in the Home Park, Hampton Court, the property of her Majesty the Queen, were sold by auction by Mr. Cowles, acting under the instructions of Colonel Maude. There were 81 beasts, polled and horned Scots. They realised £1,829, an average of £22 11s. each.

LAUDERDALE AGRICULTURAL SOCIETY.—The annual show of rams in connection with the above society was held at Lauder. A large show of ewes and rams, all of which were bred upon farms in the county of Berwick. The judges were Mr. Todd, Cardona; Mr. Stephenson, Mid-Lothian; and Mr. White, Hutton Knowe. The following were the awards: Leicester ram above one shear, G. Wight, Carfrae; Leicester shearing ram, J. Runciman, Wantonwallis; two Leicester ewes, T. Simson, Blainslie; two Leicester ewe lambs, T. Simson; five half-bred ewes, G. J. Renwick, Corsbie; five half-bred ewe lambs, H. Hogg, Symington; two Cheviot rams above one shear, R. Durie, Broadshawrig; two Cheviot shearing rams, — Archibald, Glengalt; five Cheviot ewes — Archibald; five Cheviot ewe lambs, H. Hogg; two blackfaced rams above one shear, J. Graham, Chints; two blackfaced shearlings, J. Graham; five blackfaced ewes, — Archibald, Overshiels; five blackfaced ewe lambs, G. M'Dougall, Blythe. The usual sale of rams took place, Mr. Davidson, Melrose, acting as auctioneer. The following is a list of the sales: Mr. Simson, Blainslie, eleven, highest £7 2s. 6d., average £5 19s.; Mr. Bertram, Addenstone, seven, highest £5 17s. 6d., average £5 2s.; Mr. Smith, Leaderfoot, four, highest £4 15s., average £4 11s. 6d.; Mr. Dickieson, Maidenhall, sixteen, highest £7 2s. 6d., average £5 13s. 9d.

SALE OF MR. FAWCETT'S SHORTHORNS, AT SCALEBY CASTLE, ON OCTOBER 20TH.

BY MR. JOHN THORNTON.

This sale of about fifty head, from Mr. Fawcett's herd, was to have taken place two days before Mr. Saunders' sale at Nunwich, last month, but an outbreak of foot-and-mouth disease caused the sale to be postponed. This not only reduced the card item of the stock, but also deterred many from buying. A certificate of health was given by the local veterinary inspector; but a wet day kept many away, still the ring was well filled, and Col. Graham was very happy in the chair at the lunch, which took place in the large nursery of the old castle. Mr. T. Gibbons was judge of the sale. Most of the cows ranged from 20 gs. to 30 gs.; some of the animals had, however, not held, and others were slightly doubtful, so that there was a general combination of mishaps. Balcony, a six-year-old cow of the Certainty tribe, went cheap to Mr. J. Thom at 32 gs., and her bull calf, a fine hairy roan, was bought for Mr. Williamson at 30 gs. Elvira 12th, five years old, fetched 41 gs. (Dalton), and Archduchess 3rd, four years old, not yet calved, made but 34 gs. Mr. Fair bought a very cheap cow in Paulina at 29 gs., and her heifer, a roan yearling, 46 gs., by Royal Duke, went to Mr. Gray for Mr. Brocklebank, who bought several; Col. Graham and Mr. Binning Horne were also buyers. Royal Duke (25015) was reserved at 100 gs., and the fine bull Emperor Maximilian, exhibited unsuccessfully at the Royal, made only 47 gs. (Mr. Bardon). The bulls, rather low in condition, went very cheap, and altogether the 48 head averaged nearly £25. Five bulls, bred by Lord Kenlys, were included in the sale: these sold better, averaging £37 7s. 6d., the highest price being 65 gs. (Fair) for Valiant Oxford, a young bull of much promise; and Oxford Lad, from Mr. Maynard's stock, went for 36 gs. to Mr. J. Mattinson. The proceedings were over early in the afternoon.

MR. SHELDON'S SHORTHORN BULLS,

AT WESTON, ON OCTOBER 18TH.

BY MR. STRAFFORD.

Wharfedale Darlington, white, calved September 6, 1869; by 3rd Duke of Wharfedale (21619), out of Darlington 12th by Duke of Geneva (19614).—J. J. Stone, 27l. 6s.
Puck, red and white, calved September 13, 1869; by Duke of Brailes (23724), out of Harebell by 4th Duke of Thorndale (17750).—Benson, Foxcote, 42l.
Sabinus, red, calved October 7, 1869; by Earl of Warwickshire (26079), out of Giulita by Duke of Darlington (21586).—Bliss, Edgcombe, 47l. 5s.
Earl of Warwickshire 3rd, roan, calved November 4, 1869; by Duke of Brailes (23724), out of Lady Emily 2nd by 7th Duke of York (17754).—G. Garne, Churchill Heath, 70l. 7s.
Lord Hastings, red, calved November 17, 1869; by Earl of Warwickshire (26079), out of Lady Elizabeth by Duke of Darlington (21586).—C. Hobbs, 50l. 8s.
Bismarck, red, calved January 3, 1870; by Earl of Warwickshire (26079), out of Woman in Red by Duke of Darlington (21586).—Lathern, 27l. 6s.
The six bulls made £264 12s., at an average of £44 2s.

SALE OF BULL-CALVES FROM THE BALLYWALTER HERD.

Messrs. Marsh, of Cork, offered for sale, at Ballywalter, Ireland, fourteen bull-calves of the herd of Mr. Richard Welsted, at Ballywalter, when the following excellent prices were realised.

Golden Prince, roan, calved Jan. 2, 1870, by Prince Christian (22581).—Mr. Newman, Grouse Lodge, Co. Limerick, 45 gs.
Prince Leopold, white, calved Jan. 9, 1870, by Prince Christian (22581).—Lord Carbery, Castle Freke, 35 gs.
Prince Charlie, white, calved Jan. 13, 1870, by Prince Christian (22581).—Mr. Gash, Bandon, 25 gs.
Prince of the Realm, red and white, calved Feb. 12, 1870, by

Prince Christian (22581).—Mr. David Taylor, Portanan, Co. Limerick, 45 gs.
Prince George, roan, calved Feb. 14, 1870, by Prince Christian (22581).—Mr. Ahern, Blarney, 41 gs.
Prince Royal, red and white, calved Feb. 24, 1870, by Prince Christian (22581).—Mr. Meade, Ardagh, Co. Limerick, 30 gs.
Lord of the Manor, red, calved March 5, 1870, by Uncle Ned (19026).—Mr. Cooke, Ballyneal, Co. Kilkenny, 54 gs.
Uncle Sam, red and white, calved March 15, 1870, by Uncle Ned (19026).—Mr. Lloyd, Strancally Castle, Co. Waterford, 20 gs.
Fosco, red, calved March 21, 1870, by Uncle Ned (19026).—Mr. Murray, Ballystin, Co. Limerick, 38 gs.
Falstaff, red and white, calved March 27, 1870, by Sir Egbert (27468).—Mr. Leahy, 17 gs.
Protector, red and white, calved April 10, 1870, by Sir Egbert (27468).—Mr. Gash, Bandon, 29 gs.
Symmetry, red, calved April 19, 1870, by Sir Egbert (27468).—Mr. T. Sullivan, 33 gs.
Defender, red and white, calved April 21, 1870, by Sir Egbert (27468).—Mr. D. Driscoll, Clogheen, Cork, 21 gs.
Lord Spencer, red, calved April 30, 1870, by Sir Egbert (27468).—Capt. Bowen, Bownscourt, 21 gs.

GREAT CHEESE SHOW AT KILMAR- NOCK.

The sixteenth annual exhibition held under the auspices of the Ayrshire Agricultural Association, took place last month.

Sweet milk cheese, made according to any method (the weight of each lot not being under 1 cwt.).—First prize, John Gardiner, Baldoon, Wigtownshire; second, the Duke of Buccleuch; third, R. Stevenson, Hillhouse, Riccarton; fourth, A. Mitchell, Moorhouse, Loudoun; fifth, G. Mackerrow, Airliland, Castle-Douglas; sixth, R. Drummond, Pocknave, Craigie; seventh, J. Drummond, Camiscean, Craigie; eighth, W. Lindsay, Killoch, Mauchline; ninth, J. Galloway, dairyman, Cleudrie Inch, by Stranraer; tenth, J. Gibson, Stoneykirk, by Stranraer; eleventh, J. Lindsay, Lane, Stair; twelfth, W. Harcomb, High Ardwell, Stoneykirk.

Sweet milk cheese made according to the Cheddar method (the weight of each lot not being under 1 cwt.).—First prize, J. Clark, Killylan, Old Luce, by Glenlue; second, W. Harcomb, High Ardwell, Stoneykirk, by Stranraer.

Two cheese, each cheese not being less than 30lbs. in weight, made strictly according to the Dunlop method.—First prize, H. Wilson, Auchengelsie, Cunnock; second, J. Henderson, Kellose, Kirkeconnell; third, W. Sharp, Dallannah, New Cunnock; fourth, G. Dunlop, Warwickland, Fenwick; fifth, S. Wallace, Auchenbrack, Thornhill.

Loaf cheese (Cheddar or any other imitation English)—each lot not being under one-half cwt., and each cheese not exceeding 12lbs.—First prize, R. Drummond, Pocknave, Craigie; second, J. McCamen, Barnhill, Kirkecoln, by Stranraer; third, Nisbet, Gameshill, Dunlop.

Uncoloured cheese, made according to any method (the weight of each lot not being under 1 cwt.).—First prize, D. Blackburn, Calscadden, by Garlieston; second, D. Sayers, Old Luce; third, J. Drummond, Camiscean, Craigie.

Uncoloured loaf cheese, made according to the Cheddar method (each lot not being under 1 half-cwt., and each cheese not exceeding 12lb.).—First prize, D. Blackburn; second, W. Harcomb, High Ardwell, Stoneykirk, by Stranraer; third, D. G. Williamson, Bomby, Kirkeudbright; fourth, J. Nisbet, Gameshill, Dunlop.

Lot of cheese (not under 1 cwt.), made according to the Cheddar method.—First prize, G. M'Kerrow, Airliland, Castle-Douglas; second, J. Hannah, Inshanks, Kirkeconnell, by Stranraer; third, J. Drummond; fourth, J. Currie, Borland, Borgue, Kirkeudbright.

Sweet milk cheese, made according to any method (the weight of each lot not being under 1 cwt.).—First prize, R. Drummond, Pocknave, Craigie; second, A. Allan, Munnoch, Dalry; third, A. Dunlop, North Turnberry, Kirkeoswald; fourth, R. Stevenson, Gillmill, Stewarton; fifth, R. Stevenson, Hillhouse, Riccarton; sixth, J. Nisbet; seventh, W. Lindsay, Killoch, Mauchline; eighth, R. Torrance, Burnfoot, Loudoun; ninth, R. Dunlop, Alton, Kilmours; tenth, J. Howie, Boghead, Tarbolton.

AGRICULTURAL REPORTS.

GENERAL AGRICULTURAL REVIEW FOR OCTOBER.

Although the transactions in the wheat trade at the opening of the market were on a limited scale, considerable firmness has been apparent in prices, and, as we write, a decided tendency in the upward direction prevails. Very exceptional circumstances have influenced the trade, which have prevented the ordinary run of supply and demand from altogether controlling the market. The condition of France, and the probability of an extensive demand on French account as soon as the war is brought to a close has induced factors, to hold with firmness, and has caused millers to somewhat hastily replenish their stocks, which have, for a long time past, stood at a low ebb. The present agricultural condition of the north and north-east of France is something appalling. Not only have the crops been consumed, and the stock carried off, but the implements have been destroyed, and there is not enough grain left for seed for the present sowing. The only way to remedy the waste and destruction which have accompanied the war, will be by extensive shipments from this side, and factors have accordingly been amply justified in demanding advanced prices. The improvement which has taken place in values is about 4s. per qr. on the month, and at this enhancement a steady business has been concluded.

The weather has been somewhat variable. At the commencement of the month rain was much wanted to loosen the stiff clays, which refused to answer to the ordinary action of the plough. Recently, however, much moisture has fallen, and the ponds and streams which had become dried up in consequence of the droughty nature of the past season, again present their usual appearance. Autumnal preparations have made rapid progress, and potato-lifting is now almost completed. Farmers have thrashed out wheat liberally, and their deliveries have been large; but recently more attention has been given to barley, which has paid better than wheat in consequence of its being relatively higher in value. Many circumstances have conspired to induce the belief that we shall see high prices for wheat for some time to come. The winter season is now near at hand when there is an increased consumption of breadstuffs, particularly when the price of meat promises to rule high, while the close of the navigation both in the Baltic and Black Seas will prevent any considerable additions to the quantity of produce afloat. This, however, is still large for the time of year, and the report of advanced prices here will have the effect of stimulating shipments from America before the canals are closed. These facts, coupled with the certain demand we shall soon experience from France, amply justify the somewhat unexpected movement which has taken place in prices, considerable as it is.

Barley was in scanty supply early in the month, but latterly has come forward freely; the quality of the samples has been inferior. There is little good malting barley to be had, and the value of most samples shows a decline of 1s. per qr. on the month. Grinding and distilling samples, however, have maintained late rates. Malt has ruled dull at nominally unaltered currencies. There have been large arrivals of maize, but owing to the increasing demand values have been sustained. It is estimated that there are about half a million quarters of maize afloat from the South of Europe; but a firm trade is anticipated, as it is believed that the scarcity of cattle food will cause a steady demand throughout the winter. The price of oats has fluctuated considerably, but the quotations show no material change at the close as compared with those current at the opening of the month. Beans and peas have been scarce, and have commanded very full prices.

The worst feature in the agricultural world is the condition of the root crops. Turnips especially are very bad, being much blighted. Potatoes are not good, while the absence of rain has materially affected most other crops. As the grass has failed this year, this is a consideration of vital importance to our graziers, the prospect before whom is far from

encouraging. Fortunately, the season has so far been a mild one, and the cattle have been well able to keep out in the fields up to this time.

New hops have come forwards freely, and the condition of the samples has been very excellent. As much as 17 cwt. per acre has been secured on favoured lands, while the return generally is far above the average. A good trade has been passing in home-growths, while foreign produce has been quite neglected.

The wool trade has ruled quiet but firm. Choice English lustras have commanded steady prices, but common descriptions have been neglected. Large public sales of colonial produce commenced on the 27th October.

REVIEW OF THE CATTLE TRADE DURING THE PAST MONTH.

The feature of the cattle trade has been the stoppage of the French and German beasts at the waterside, owing to the prevalence of disease amongst the arrivals from those countries, and only Spanish and Dutch beasts are now allowed to pass the barriers. Owing to this circumstance, the actual supplies exhibited at the Metropolitan market have shown a marked falling-off. The arrivals from our own grazing districts have been about an average, and they have included some prime animals, whilst the Scotch beasts have come to hand in excellent condition. It must be remembered that even throughout the severe drought pasturage was plentiful in the north, and therefore Scotch graziers suffered less from the deterioration of their stock. The late rains have also considerably improved the appearance of the meadow lands in the southern part of the kingdom, and cattle can now obtain a fair feed. As regards trade, there has been a continuance of firmness. Prime breeds have been in request, and have commanded full quotations, viz., 6s. per 8lbs.; other qualities, however, have been quiet.

With sheep the market has been moderately supplied, and the quality has been rather improved. On the whole, the trade has been steady, and the value of the best Downs and half-breeds has risen to 5s. 10d. to 6s. per 8lbs.

Calves have been scarce and dearer; but pigs have changed hands slowly.

The total imports of foreign stock into London during the past month have been as follows:

	Head.
Beasts	16,598
Sheep	42,584
Calves	3,035
Pigs	3,370

COMPARISON OF IMPORTS.

Oct.	Beasts.	Sheep.	Calves.	Pigs.
1869	11,496	28,252	2,365	1,902
1868	12,744	17,891	962	1,943
1867	13,061	29,265	957	2,911
1866	15,876	30,108	1,373	4,859
1865	15,344	69,611	1,952	9,135
1864	16,074	38,715	3,339	5,537
1863	11,560	37,521	1,129	2,965
1862	7,906	28,109	1,327	1,600
1861	5,577	42,538	1,207	5,315
1860	6,750	24,980	1,662	2,074
1859	6,026	24,323	784	875
1858	4,600	24,145	1,581	553
1857	5,819	24,102	1,998	1,233
1856	8,871	10,502	1,980	895

The arrivals of bullocks from our own grazing districts, as well as from Scotland and Ireland, thus compare with the three previous years:

From—	Oct., 1870.	Oct., 1869.	Oct., 1868.	Oct., 1867.
Lincolnshire, Leicestershire, and Northamptonshire	8,690	9,250	11,160	7,340
Other parts of England.....	2,200	1,637	1,790	2,500
Scotland	625	32	267	7
Ireland	1,300	1,400	1,110	1,820

The total supplies of stock exhibited and disposed of during the month, have been as under: Head.

Beasts	23,290
Sheep	130,820
Calves	2,955
Pigs	1,995

COMPARISON OF SUPPLIES.

Oct.	Beasts.	Sheep	Calves.	Pigs.
1869	23,840	86,930	2,375	830
1868	26,562	109,160	1,446	1,380
1867	28,340	103,870	1,129	2,865
1866	27,600	99,200	1,666	4,340
1865	30,210	157,840	2,932	2,478
1864	33,840	137,424	2,671	3,520
1863	30,512	110,800	2,029	3,439
1862	28,975	118,780	1,855	3,286
1861	28,220	121,390	1,626	3,650
1860	26,240	128,250	2,289	2,620

Beasts have sold at from 3s. 8d. to 6s., sheep 3s. 6d. to 6s., calves 3s. 6d. to 5s. 10d., and pigs 4s. 4d. to 6s. 2d. per 8lbs. to sink the offal.

COMPARISON OF PRICES.

	Oct., 1869.				Oct., 1868.			
	s.	d.	s.	d.	s.	d.	s.	d.
Beef from	3	2	5	8	3	2	5	4
Mutton	3	4	5	10	3	2	5	4
Veal	4	0	6	0	3	6	5	4
Pork	4	4	6	2	3	4	4	4

	Oct., 1867.				Oct., 1866.			
	s.	d.	s.	d.	s.	d.	s.	d.
Beef from	3	2	5	0	3	6	5	4
Mutton	3	2	4	10	3	8	6	4
Veal	4	2	5	4	4	2	5	6
Pork	3	4	4	2	4	0	5	2

The dead meat markets have been well supplied. The business doing has not been extensive; but prices have ruled firm. Beef from 3s. 4d. to 5s. 2d., mutton 3s. 4d. to 5s. 4d., veal 4s. 8d. to 5s., and pork 3s. 8d. to 5s. 8d. per 8lbs. by the carcass.

ISLE OF ELY.

The early harvest and the subsequent fine weather have enabled farmers to accomplish their autumn tillages most satisfactorily, and very seldom has there been so much of this sort of work done as this year. Autumn cleaning becomes year by year increasingly essential, in consequence of the much larger acreage of crops sown in the early spring. But this work has now given place to wheat-seeding. The long continuance of dry weather kept the land in an unfit state to receive the seed, and it is only during the last ten days, since rains have fallen, that we have had a good seed-bed. Sowing is being rapidly proceeded with now, and in a very short time the bulk of the crop will be in the ground. The harvest is proving very much what we represented it in our report in July. Where there was a full plant of wheat the yield is good, above an average; but where the plant was thin and irregular it is affording a deficient yield; and we still question whether the whole Fen country will much exceed an average crop. We are inclined, from the information and knowledge we have acquired, to place it at just about an average, or 4½ qrs. per acre. Potatoes are a heavy crop, but have lately shown symptoms of disease to a considerable extent on many lands, especially where the subsoil is of a wet nature. Mangels are a good crop, are ripe and being taken up, and will be found very valuable during the winter months. Coleseeds are generally not good, having suffered from mildew, fly, and drought. Meat continues dear, and without any appearance of an early change to lower prices. The corn trade is slightly improving, and we shall not be surprised if the low range of prices experienced since harvest should be shortly followed by one higher and more remunerative.—Oct. 20.

THE NORTH RIDING OF YORKSHIRE.

A change of weather took place here on the 8th inst., since when we have had a rainfall of upwards of five inches, accompanied with a low range of temperature. Very little wheat is yet sown, but the rain will greatly facilitate the preparation of the seed bed, and a fortnight's dry weather would enable much to be sown in beautiful order. Our pastures are very bare, and fogs are little better, and the removal of cattle to their quarters in the folds cannot now be long delayed. Owing to the almost universal failure of the turnip crops and the short crops of hay much artificial food will be required to enable anything like an average head of stock to be wintered, and the usual spring supplies of beef and mutton will from this district be very short. Our cattle on many farms have been suffering from foot-and-mouth disease, but we hope it is now on the decline; but where so many centres of disease exist it is very difficult to prevent its spreading. Fat cattle and sheep are well sold up, while anything in store condition, especially sheep, is quite a drug in the market. Thrashing, to any extent, has not taken place; but, referring more especially to that grown on clay soils, where any wheat has been thrashed, the yield is tolerably satisfactory. Our greatest deficiency will be found on the light thin soils, where the grain did not properly fill. The potato crop is spoken of as a light one, but little disease exists. Mutton in our markets is now making from 7½d. to 8½d. per lb., beef from 5s. to 9s. 6d. per imperial stone.—Oct. 21.

W E A L D O F K E N T.

After a summer of unusual drought we have a return of wet, which may prove itself another extreme. The weather was all that could be desired for preparing the land for the reception of the seed. The wheat crop of the past season was, on the whole, quite up to expectation as regards quantity, but we scarcely remember a year when black was so general in these parts, it being difficult to find a growth quite free: farmers need not be troubled with black wheat if they would take more pains and resort to the old-fashioned practice of lime and brine, which system has of late years gone almost out of doors; those of the old school who have not been led away by new fanciful ideas have grown their wheats entirely free, not only from black, but prevented the sowing of that which causes more additional labour in the spring of the year than the time occupied in more carefully preparing the seed before sowing. The price of wheat since harvest has gradually declined, but now appears to have reached its lowest; and it is very doubtful if prices do not range higher by several shillings ere another harvest arrives than we have seen for some time past. The stock on hand in this district is by no means large farmers having sold pretty freely before the hop-picking season to meet their requirements. The crops of Lent corn were in nearly all cases under an average, oats more particularly; the quality being very indifferent parcels weighing forty pounds the bushel are very few: there are more under thirty-two pounds than over, so that good corn must range at higher rates. The heaviest crop of hops on record was grown this year on most grounds, nearly two years' consumption, showing clearly the plantation to be large; they are selling now at a price which cannot be remunerative to the grower; and if they wish for better prices, which cannot be expected with such a growth as the present, the plantation must be reduced and attention paid to the cultivation of the better sorts, and grown on soils particularly adapted for the production of fine samples. The late rains have improved the appearance of the pastures. Sheep are doing better, and are, at present, free from disease. Beef and mutton realize high figures. Wool sells slowly at £13 to £13 10s. per pack. We have but few labourers but what are fully employed.—October 22nd.

AGRICULTURAL INTELLIGENCE, FAIRS, &c.

BANBURY FAIR.—The sheep and cattle trade was very good, and a large number of animals were shown. Beef brought from 5s. 4d. to 5s. 8d., and mutton 5s. 4d. to 5s. 6d. There was a large number of sheep and cattle in the market, but as the prospects of keep are very indifferent, the trade in this department was flat.

BOSTON FAT SHEEP MARKET.—An average supply Prices about the same as this day week.

CAISTOR FAIR.—Of Sheep there was fully one-third less penned than at the last fair, and business was well over before noon. About 1,000 head of cattle were brought to market, and mostly offered at prices which meant a clearance: best kinds were in good demand. A decided leanness was the characteristic, to which practical objection was taken by buyers in sorting and bidding for the best only in almost every lot. Good useful steers sold readily at £16 and upwards; a lot of eight bullocks in fine condition were sold at £22 10s. a-head, inferior sorts were bad to sell, at from £10 to £12. Of cows there was a good supply and a brisk demand, at £12 and upwards. Of horses there was an average show: a few good working animals for agricultural purposes, but the bulk composed of old and inferior kinds.

CARLISLE FAIR.—Well-conditioned stock was good to sell, and previous rates were easily obtained. Sales throughout the forenoon and early part of the afternoon progressed very steadily, the better class of Galloways and Shorthorns bringing pretty high rates. Galloways £6 10s. to £13 10s., Shorthorns £7 to £12 10s., Irish £4 15s. to £11 10s., milch cows £15 to £17 a head. There was a fine show of lambs and sheep. Some 300 head were on offer, including many very nice-looking flocks of half-breeds, Cheviots, and crosses. Though buyers were present in pretty large numbers trade only progressed slowly, and at the close of the market several lots remained unsold. The rates paid for good lambs were similar to those current recently, cost of keep in the interval taken into account. Half-bred lambs 16s. to 30s., cross-bred 11s. to 18s., Cheviot 12s. to 15s., Cheviot ewes 24s. to 30s. each.

CERES CATTLE AND HORSE MARKET.—There was a large show, and much business was transacted. The top price of fat was 9s. 6d. per imperial stone; and midding and inferior, 9s. and 8s. 6d. Wintering stock was in demand, and many lots of Irish cattle were shown. Two-year-olds sold at from £9 to £12 10s. a-head. Milch cows were keenly sought after, and realized from £10 to £21 a-head. The horse market was well supplied, but many of the animals were inferior. Good-looking horses sold at from £18 to £40 each.

COLCHESTER FAIR.—A large number of horses and beasts were shown, but no sheep. The prices ranged from £5 to £20 for useful ponies and cobs; cart horses averaged from £25 to £40. The demand for store beasts was not good, and prices are hardly quotable.

DALKEITH FAIR.—The number of cattle on offer exceeded 5,000; last year the number was 3,500. The increase is chiefly to be attributed to the large show of Irish stock, while that from England was also above an average. Generally, the English cattle were inferior in regard to quality, and there was a great scarcity of animals in forward condition; indeed, so few have not been seen at this market for some years. The falling-off in this respect is the result of the long drought experienced in the end of the summer, and the prevalence of murrain in the country. The lots from Ireland were moderately fair as to condition, and embraced all ages. A few polled Galloways from the south were exhibited, and one or two lots of crosses. Trade opened with English Shorthorns, and a good demand was experienced throughout. For the best class of stirks—of which, however, the number was smaller than usual—there was an excellent sale at high prices: indeed, higher than those current at East Linton and Falkirk. A complete clearance of this class was effected by mid-day. For Irish cattle the demand was not so quick, but on the whole they enjoyed a good fair trade, and the prices of recent markets were maintained. Stirks suitable for feeding were in chief request; those for wintering were slower, but ultimately they were all cleared off. In the afternoon, a number of lots of the rougher descriptions of Irish cattle were unsold, and at the extreme close of the market a clearance of these had not been made. The following sales were reported: Three-year-old Shorthorns at from £14 10s. to £16 10s., two-year-olds from £12 10s. to £14 10s., stirks at from £9 to £10 7s. 6d., Irish three-year-olds at from £14 to £15 10s., two-year-olds at from £11 to £13, and stirks at from £9 to £9 15s. The show of horses was not so large as usual, nor was the quality an average. For the best class of draught animals there was a fair sale at high prices. Cart horses sold at from £28 to £57, and a harness horse at 30 guineas. M. Leggat, Glasgow,

bought several draught horses, at prices ranging from £30 to £10. Mr. Hamilton, Haddington, held a good stud, and sold at from £30 to £50. Mr. Archibald Yuille, Glasgow, bought several at £35 to £50. Mr. R. Allan, Glasgow, sold cart horses at from £20 to £35; and purchased ponies at from £12 to £18.

DEVIZES FAIR was held on the green. There was a larger supply of sheep than on the last occasion, but mostly of inferior quality, lambs and culls being the rule, and good ewes and wethers the exception. Although trade must be quoted dull, there was no lack of buyers, and sales were by no means difficult to make, at about the prices of Castle Fair (Oct. 4), the advance of 1s. to 2s. per head which took place at Weyhill being now lost. Lambs made 15s. to 30s. per head, ewes 23s. to 40s., and wethers 30s. to 54s. The cattle fair was one of the smallest we have ever seen here since the cessation of the cattle plague, but the great prevalence of disease, especially that of "foot-and-mouth" among the horned beasts of the district, is quite sufficient to account for the small supply. The fair was a very quiet matter, and prices the turn lower. The beasts present were, moreover, as a rule, of very inferior quality.

DOLLAR ANNUAL MARKET.—The show of cattle was good, and the prices for winter cattle were considered high. Stirks sold at from £10 to £12, and two years old grazing cattle from £15 to £17.

DUMFRIES FAIR.—The supply of cattle was fully 1,000 head, and comprised a number of lots of very superior three years old Galloway bullocks, a large number of Highlanders, including superior two years old grazed in the district, and a number of lots of stirks from Falkirk. In the morning there was a good demand for the best Galloway bullocks, and a number of lots were sold early at high figures. By eleven o'clock the market grew duller, and the weather becoming unfavourable, had a rather depressing effect. During the afternoon the market continued slow and stiff for all descriptions, the unprecedentedly high prices asked deterring customers from purchasing. Prices for three years old Galloway bullocks ranged from £13 to £15 10s., two years old £10 to £12 10s., one year olds £6 to £8 10s., three years old Highlanders £13 to £14 10s., two years old ditto £8 to £10 10s., one year old ditto £5 to £6 15s., Irish two years old £9 to £11, one year olds £5 10s. to £7. Mr. Henderson, Garroch, sold 4 four years old Highland bullocks at £20. Mr. Robson of Barneuch sold a small lot of Galloways at £20. A lot of 40 three years old Galloway bullocks sold for £15, a lot of 30 made about the same figure, a lot of 32 three years old Galloways sold at £15 10s., a score of two years old Highland bullocks sold for £10 15s. The supply of sheep was small, and consisted principally of second and third half-bred and cross-lambs. The quality was scarcely up to the wishes of purchasers, and the market was rather slow. Prices for half-bred lambs 18s. to 24s., cross lambs 14s. to 18s., Cheviot lambs 10s. to 14s.

DUNFERMLINE MONTHLY MARKET.—Milk cows were very scarce, but anything good brought high prices, and several sold from £10 to £20 each. Fat cattle were a short supply, but what were sold brought good returns. In the afternoon the horse market took place at the same stance, but the animals shown were very deficient in quality, and consequently few sales were effected.

EARLTON FAIR.—There was a large show of cattle, and a steady good demand at high figures, the recent rains improving the turnip crop considerably, and thus enhancing the value of feeding stock. There was a large attendance of farmers and dealers. Two-year-olds were selling at from £13 to £15 10s., and stirks from £7 10s. to £12 15s. Mr. Eskdale sold a lot at £12, and bought a good lot at £12 15s. In the horse market there was a fair show, and for good draught animals there was an active demand.

ELGIN MONTHLY MARKET.—The market throughout was characterised by briskness and an advance of prices. The following are a few of the sales: A lot of six stots and queys at £14; a lot of five two-year-old heifers at £17; a lot of three two-year-olds for £70; a lot of two-year-old stots at £17 10s.; seven six-quarter-olds at £11; a lot of four two-year-old stots at £15 15s.; also two stots for £28 10s., two one-year-old stots for £16; also two queys for £16; a lot of five one-year-olds at £10, a lot of eight one-year-olds at £8 10s.; and a lot of seven two-year-olds at £15 10s.

GLOUCESTER FORTNIGHTLY MARKET.—There was a good supply of stock of all descriptions, and buyers from long distances attended in great number. Trade was good. Beef made from 8d. to 8½d. per lb., and was in favour of the seller at these prices. Mutton sold well at 8d. to 9d. per lb. Bacon pigs made 10s. 6d. to 11s. and porkers 12s. to 12s. 6d. per score, and the demand was good.

HAWICK TRYST.—The attendance was below the average, and the same may be said of the number of horses. They consisted principally of young long-tails for farming purposes, in the hands of dealers from Cumberland. Mr. John Foster, Nook, Nichol Forest, showed a good string, and sold two-year-olds at from £28 to £40. He had a few yearlings, which brought from £15 to £20. Mr. Foster, Rocliffe, sold two-year-olds at from 23 to 40 guineas, with a luckepenny in the highest quotation. Mr. Mitchell, Harperhill, Brampton, showed 36 two-year-olds, and got similar prices. Mr. John Mitchell sold a fine two-year-old at £38. There is a scarcity of young horses this year in the Cumberland breeding districts. Mr. Ogilvie, Chester, bought one of the finest horses on the ground for £40; Mr. Pringle paid £39 for another; and Mr. Welsh, Kirkton, got a fair good animal for £29. There were few ponies for sale, but high prices were asked for the best presented—as much as 20 guineas in some cases. Sales were in a few instances effected at £10 to £14. Some hacks and old horses were on the ground; they brought £10 to £20, according to quality and condition. One three-year-old horse shown by a farmer brought £32 10s.

HEREFORD OCTOBER FAIR.—This fair was one of the old-fashioned type as to weather, which was for some hours wet and windy to a degree that we have not often seen paralleled, and which much interfered with the convenient transaction of business. The supply, though very small for this great and well-known fair, one of the first of its class in the kingdom, was fully as large as had been anticipated. It was chiefly confined to store stock, which, although hanging heavily on hand, realized much the same values that have ruled here for the last few weeks—prices which we scarcely need say leave the balance on the wrong side of the ledger in the cases of too many of the vendors. Fat beef was scarce and was readily disposed of at from 7½d. to 8d. per lb. Speaking generally as to the quantity of stock which exchanged hands, and as to the prices which were realized, the fair was considered to be a bad one in the interest of farmers. There was a moderate supply of sheep—indeed we never look for a large supply at the October fair. Trade in stores dull. Prime fat wethers realized 3½d., inferior qualities of mutton 7½d. per lb. Bacon pigs were sold at 6s. 9d. per stone, porkers 7½d. per lb. Stores in demand, with an upward tendency.

LINCOLN FAT STOCK MARKET.—A small show of both beasts and sheep, and prices unaltered, viz., beef 9s. to 10s. per stone. Mutton 9d. per lb.

LOCKERBIE FAIR.—There was the largest show of sheep and lambs that has been known at any October market, the number being about 22,000, or nearly three times as many as at the corresponding market of last year. A large proportion of the stock was Cheviot ewes. The turnip crop in Dumfriesshire is in general good, and an active demand was anticipated. Buyers were pretty numerous, although few Galloway customers were present. The large supply caused the market not to be so quick as expected. For the best animals in all classes of stock there were customers, but inferior were slow to sell. The few lots of the better class of half-breds were early picked up. For the top lots of Cheviot ewes there was steady demand, although not very quick; but by one o'clock the crack lot had mostly been sold. The market on the whole may be considered a dear, slow selling market. Prices were not what buyers quite expected, although very high. Lambs would in most cases be paying their keep, but there would be no profit on purchases in September. Cheviot ewes would be 1s. to 1s. 6d. lower than last year. Prices for half-bred lambs ranged from 22s. to 28s. 6d. for the best, and 15s. to 20s. for the other descriptions. Cross lambs 14s. to 22s. 6d. Cheviot wether lambs from 8s. to 14s. Cheviot ewe lambs 7s. 6d. to 14s. 5d. Cheviot cast ewes 24s. to 32s.

MAIDSTONE FAIR.—There was a tolerably good show of horses. First-class animals fetched from 40 to 45 guineas; second-class 30 to 35 guineas; good prices being also obtained for roadsters and ponies, but the trade was somewhat slow. Between 5,000 and 6,000 sheep were penned. Twin-mark

ewes sold for 34s., lambs from 10s. to 30s. The supply of store beasts was short, there not being more than from 200 to 300 in the field, and these at from £10 to £12 per head.

MARKET HARBOROUGH FAIR.—There was a number of good horses. The trade was very slack, the buyers not being in proportion to the number on sale.

MELTON BULLOCK FAIR was by no means large. There were, however, several sales effected, the prices in all cases being high. 80 Welsh beast were sold at £9 a head, and 80 shorthorns from £8 to £16; Mr. McCauley, from Ireland, had 46 shorthorns, for which he asked £17 a piece; Mr. Rose, of Boxead, 45 North Wales runts, £7 10s. to £9; Mr. W. Fenner, of Colchester, 120 shorthorns, prices £6 10s. to £12 12s.; Mr. John Fenner, of Dedham, 124 shorthorns, £10 to £18 18s., and 100 Welsh beasts, £7 to £10; Mr. Amass, of California, 86 shorthorns, from £9 to £11. The largest exhibitor was Mr. Makin, of Ringshall, who had 400 shorthorns, at prices varying from £10 to £20 each. Mr. Walter Bond sold six three-year-old shorthorn steers from Lord Rendlesham's, at £16 5s. each, and two Brittany cows at £9 5s. a piece; also a three-year-old Brittany bull, quite fat, for £14; a two-year-old Alderney heifer for £12 10s., and two two-year-old Alderney heifers at £10 15s. each. An Alderney cow in milk was sold for £8 5s. A fat Suffolk bull, estimated to weigh 70 stones, £27. A Chesnut brood cart mare, the property of Mr. C. Barnes, of Kettleburgh, was bought for £47 15s. 6d.

RUGELY HORSE FAIR was very thinly supplied with good horses. Few only of the London or other dealers were present. One valuable hunter sold for £100. Of good cart colts and horses the supply was very limited, although the demand was brisk; whilst inferior animals and Welsh ponies were numerous, with few buyers. The supply of young stock was very scanty, and ready sales were effected.

ST. COLUMB MONTHLY MARKET was held on Tuesday last, and was well supplied with fat and store cattle and sheep. Fat cattle fetched from £3 5s. to £3 10s. per cwt.; sheep 7d. to 7½d. per lb. The attendance of buyers was not very large, but a fair amount of business was transacted.

SALISBURY FORTNIGHTLY MARKET.—The number of beasts was small, and good qualities scarce. The latter, therefore, met with a quick sale, at full rates. In the sheep department the supply was good, upwards of 3,000 being penned. A fair demand prevailed, and a clearance was generally effected, best wether mutton realizing from 8½d. to 9d. per lb., and ewe ditto from 7½d. to 8d. Oxen realized 14s. to 15s. per score for the best, and heifers from 12s. 6d. to 13s. 6d.

SHERBORNE FAIR.—Trade was satisfactory, at the full currencies of Weyhill, and a good many lots were moved off early. The great difference, not only in the quality but the condition of the lots, gave prices a rather wide range, and ewes may be quoted from 28s. to 40s., several lots fetching the top price. Lambs ranged from 18s. to 30s.; wethers brought from 37s. to 47s. In the beast fair there was a thin and indifferent lot of stock, for the best of which 13s. was asked, and asked often before a sale was effected.

SLEAFORD FAT-STOCK MARKET.—Large show of sheep, which met with a brisk trade. Good show of really prime fat bullocks, which sold at extreme rates. Small show of pigs. Mutton realized 8½d. to 9½d. per lb., beef from 10s. to 10s. 6d., and pigs 8s. 6d. per stone.

STRATHAVEN FAIR.—The turn-out of cattle was a fair average, but generally the quality was inferior. There was a good number of Ayrshire milch cows on the ground, and prices for the best sorts were higher than those of recent fairs. Irish winter stock were well represented, but at the close a number were left unsold.

WHITCHURCH FAIR.—There was an enormous supply of pigs, chiefly stores, which were sold at much reduced prices. Fat pigs realized from 11s. to 11s. 6d. per score.

GLOUCESTER CHEESE MARKET was the smallest ever known for this time of the year, only 32 tons having been pitched. The cheese met a ready sale at 70s. to 72s. for best quality, seconds 60s. to 65s. A clearance was quickly made.

GLASGOW CHEESE MARKET, (Wednesday last.)—We have still a plentiful supply of cheese, which meets with a very slow sale, and prices continue easier, especially for medium qualities.

CALENDAR OF AGRICULTURE.

Finish the sowing of wheat on clay fallows, leys, and clovers, if any was deferred from last month. Later sowings than in last month do not prosper in South Britain; the bulk may be equal into February, but the ripening is later with an inferior quality of grains. Spring wheats are not very prosperous in the same localities, while over the north of England and the south of Scotland Lammas wheat is well sown in March, and spring wheats at the same time. In such cases, some unknown causes prevail, and may be chiefly in the climate.

In favourable weather raise from the ground the crops of Swedish turnips. Store the bulbs dressed by hand-sickle from fibres and tops, which last are given to store cattle in the yards and to sheep in the fields. The store heap of roots at the homestead must have dry bottom in seven to ten feet in width, and a central height of the heap of about four feet, with a sloping ridge of about six feet, covered with a thin straw thatch, to defend from rains and at the same time admit a free circulation of air. A permanent covering for the heaps of root crops being always made of the same extent, may be formed of two sloping sides of laths nailed together at the top, with side-rails, on which a thin layer of straw is tied by strong twine. This structure will last for years; and, being joined in separate pieces, will be very conveniently placed and replaced, while the height being one foot above the heap of roots, will permit the transmission of air to maintain a dry and cool position for the preservation of the vegetable juices which being volatile are dissipated by exposure. Hence the great advantage of vegetables passing from the earth into the stomach in the least possible time, and hence the weighty objections that can be urged against the exposure of roots or bulbs by cutting, slicing, or any mode of use that deteriorates the quality by the loss of the inherent qualities, not properties, which are strictly permanent and obvious to the exterior senses. A vegetable cannot be severed from the ground for many minutes without loss, and hence the superior benefit that is derived from the roots being eaten by the mouth of the animal over the cutting and slicing of the bulbs. The tender mouths of young sheep and cattle, in a short time of weakness, are easily assisted by older animals breaking the bulbs in a cheaper way than by machines. Slicing and cutting encourages swallowing of the pieces, which lessens mastication and the production of saliva, which is of vast consequence to the purposes of assimilation and digestion.

Thrash grains regularly once or twice in a week, to supply fresh provender for the cattle and litter for the yards. Cut chaffs for the horses, of hay and straws mixed, for the bullocks that are tied up and for the milch cows, to be used raw or steamed with roots. Sell and deliver all grains as thrashed; the keeping of stores in granary does not produce any benefit as a system, which reduces the use of a granary on any farm to the convenience of a quantity of oats to supply the work-horses, which must not be long kept to contract a musty smell. The other use of a granary is for stowing and packing wool on the extensive growing of that article.

Begin to plough stubble lands for the fallows of next year, and prepare by following the best soils to be planted with the early spring crops as potatoes, beet, and Swedish turnips. Even the half-execution of the necessary fallowing of the spring will very much advance and facilitate

the planting of the crop, with the advantage of better retaining moisture than when exposed by the spring workings. Though the autumn fallowing of lands can only be done on dry soils under benign climates, and consequently restricted in the application, yet it forms at least a partial benefit, and hence it deserves a notice on the list of agricultural operations. Subsoil ploughing should follow the winter furrow; but general opinion does not allow the benefit of that operation, though it may be useful in particular cases, as by a furrow across thorough draining, to open the descent of water into the cavities. But such a partial use might not justify the cost of the implement and of its performances.

Lime in the condition of heat is spread over the stubble grounds during this month, and covered into the land by the winter furrows of ploughing. The cinders will be partly dissolved by the moisture in the land and by any air that reaches the lime, and the remaining parts will be brought into action by the spring ploughing to emit caloric and to form a mucilage, both which operations are very highly conducive to vegetable growth by warming the ground and producing an earthy residuum. This mode has in its favour the very great recommendation of the least possible expense; but it must obviously be successful only on the best loams and the least tenacious of clay soils, as the most vicious will repel caloric almost at any time and in any condition, and may be supposed to do so very strongly during the winter's cold, while the loams, with the exuvial remains of animals and vegetables, will imbibe caloric almost under any circumstances. It must be a vast benefit in the application of lime that the cinders dissolve in the ground for the reasons that have been stated.

Supply to the cattle in the yards by break of day an ample feed of turnips, rooted and topped for the fattening animals, and with the tops attached for other sorts of cattle. Wooden cribs, with latticed bottoms, suit best in letting the rain and fith escape freely downwards. The turnips should be all eaten by night, to prevent accidents from choking happening unseen. Give milch cows cabbages and beetroot, and one feed daily of steamed meats.

Continue the feeding of sheep as directed for last month. The animals may be folded over-night on the bared ground in mild climates, but more generally a liberty is given to run back for shelter.

Feed pigs, as directed last month, in roots and meals steamed together, or in a raw condition. The fine intestines of the pig derive the most benefit from cooked food of all the animals of the farm. Feed poultry with light grains and with steamed potatoes with meals mixed, and given in troughs placed in a shelter-shed in the poultry-yard.

Attend to the feeding of young horses in the yards. Provide a regular supply of fresh water in a trough, and a convenient and dry shelter-shed; give as food straws and hay chaffs, bran and oats, and a feed on each day of steamed roots. The first winter's keep has a very large share in making good animals of all kinds.

Flood watered meadows, clean out and put into proper order for use the main channels, conveying gutters, and the sluices of flood-gates.

Begin to cut underwoods, dividing the growths into the necessary articles of hop-poles, fencing-stakes, and

hurdle-stakes, cooper's-hoops, weaving-rods, and withies, ending with fine faggots for the lime-kiln. Open, drain plantations, by making a cut in the hollows, which are strictly followed at the courses of the drains; repair old fences, and make the new ones; cast open ditches, and repair roads.

Plant all kinds of forest trees, in clumps or in circles in

knolls, in a few together as in corners, or in single standards. Choice trees for ornament will be much forwarded in the growth by a quantity of mixed guano and earth, in four or five to one being placed under and around the roots, pruned to the stem according to the quantity of fibrous protrusions. The growth will be rapid and strong, and lasting for several years.

CALENDAR OF GARDENING.

KITCHEN GARDEN.

Try again for early peas and beans. Dig roots for temporary supply of the so-called Jerusalem artichoke. Store all the potatoes, carefully observing the condition as to soundness or decay. Keep the store very dry. Dig carrots, parsnips, and beet, and secure them in dry sand.

Transplant more spring cabbage, and fill up blanks with cauliflowers of August-sown on warm borders, where they could be occasionally protected. Cover sea-kale for forcing, and prepare more asparagus plants, placing them in pits, with a bed of tree-leaves under the earth.

Protect the plant of artichokes by mulch or masses of leaves, after removing all the old stalks and decayed foliage.

Broccoli and cauliflower in the open ground should be laid down, and be guarded with a covering of dry earth laid close over the stems.

Finish earthing of celery if frost threatens; cover the ridges and tops with dry haulm.

Tie up some plants of endive, and remove others to dry frames for blanching.

Give air occasionally to lettuces under frames, and also to radish and salad, when that mode is adopted of procuring early crops of those most agreeable esculents.

Dig the grounds from which root crops have been removed, in order to expose the soil to the alternate vicissitudes of the wintry climates, to be thereby broken and dissolved in the bulk. A digging in the spring receives the seeds of creeping-rooted plants, as peas and fibres; when the ground is firm and tenacious, on the lighter soils, the spring digging may be sufficient, and the autumn preparation omitted.

Dig into the grounds to be planted with roots in the spring, a covering of the richest dung from the urine pit, short in the composition, and impregnated with liquids to dropping, but not in waste, semiprutescent and slimy in appearance. Opinions differ on autumn or the spring application of manure, no doubt arising from the different circumstances of application in the soil and climate. A general experience values highly the production of the black humified condition of the land, seen when the ground is moved in the spring, that arises from the combination of the elements in the dung and in the land in effort to form a new substance that is most beneficial to the growth of vegetation, and which produces a yield of seed-fruit, whereas the fresh dung tends to yield a profusion of leaves and fibres rather than sound fruit in seeds.

The present time is also very fitting to place in the digging of root-crop soils, once in every four or five years, a quantity of hot lime cinders of small size as a goose egg, in separate positions in the land, with a covering up of the half-depth of the spit. The moisture will partly dissolve the cinders, and the spring of the land, with the movement of the cinders, will induce a further dissolution of the incinerated earthy base, supposed to be formed from the roe of fishes, evolving much caloric to penetrate

the entire body of the soil, spreading into every corner and atom, and raising by its presence, as a quality, the temperature of the ground, producing a condition that is highly favourable to vegetable life. This warming of the ground may continue in the average of four or five years, and then renewed, always with an application of a dung of animal and vegetable matters, in order that accumulation of elements may be joined to produce from the action of caloric the benefit of damp warm exhalations that are a chief element of the ceriform food of plants. The action of caloric on soils will depend on the conducting power of the constituent parts which are favourable to that power in the ratio contained of exuvial vegetable and animal matters. Clay is a very low conductor of caloric, and hence the failures of lime as a manure on purely clay soils, owing to the small quantity applied. All clay land of any denomination may be reduced into fine soils, broken and sundered in the viscous adhesion by the intimately penetrating action of caloric from cinders placed in the ground, and dissolving in that position. For after all that has been spoken and written on the subject of lime as a manure, a very tenable opinion may be hazarded, that a chief benefit is derived from the action of caloric from the incinerated body in warming the ground, and in stimulating the dung and the soil, along with a basic residuum, in a mucilaginous condition, which adds to the early constituents. The land of the kitchen garden being treated mostly with vegetable matters, will derive much benefit from a gentle warming application to stimulate the action of inert bodies of several compositions.

FRUIT DEPARTMENT.

Wall trees and berry-bearing shrubs may be pruned at this time, although nothing is gained over the spring pruning in February, which is best preferred. But if espalier trees are not already finished, the process may now be ended, every regular spur-pruning being done in dry weather.

The mistriven growth of trees will be much assisted and forwarded into a thriving condition by pruning the roots at a distance from the stem, according to the numbers of fibres that are protruded, forming a circular branch of the ring that will be cut, and filling the cavity with a mixture of guano, with four or five times its bulk of fine earth. The trench must be carefully covered and well watered. A rapid growth will ensue to last for several years.

Leave strawberries for the winter, protected by their own foliage.

Raspberries may be tied by cord neatly to stakes, six roots to each, stopping at an angle towards the north, on to a neat open trellis. It suits well to secure by this means the full exposure of next year's growing canes to the sun; the plants are too crowded by the perpendicular confined tying to stakes.

FLOWER GARDEN.

Plant in rich beds of fine earths, sands and loams, the

bulbs of tulips, crocus, hyacinth, narcissus, jonquils, &c., &c.; open the holes neatly, place the bulb an inch or two deep, and cover it all round with fine soil. Bulbs grown in pots must be sunk deeply in sands or warm earth to remain till the early growth of spring. Cover beds of choice flowers, as azalias, rhododendron, &c., with a two or three-inch coating of leaf-mould, sand, or sandy loam, mixed together. Move a few herbaceous plants, roughly

fork the surface of beds, and scatter old rotten dung over it. Observe neatness and order everywhere.

Where any semi-hardy plants or any other kinds are kept in pits, frames or similar erections, the situation should be as dry as possible, and be aired at every convenient opportunity. Dry sawpit dust is a good material for the pots to be plunged in, as it guards from the mould effectually.

REVIEW OF THE CORN TRADE DURING THE PAST MONTH.

Though September did little to make up for the drought of the summer, after the first fortnight in October the needed supplies of rain came freely, so that the ponds have again filled and the earth has become saturated enough for all agricultural purposes. This, with the generally mild weather prevailing, has recovered the green of the meadows and greatly helped the turnips and other esculents which were threatened with an almost total extinction. Farmers will be exceedingly glad of this timely help before winter, as it will assist them to get their stock through the severe weather. The war, which has continued raging, and all in favour of the Prussians, has at last reached a height justifying the intervention of neutrals to obtain a peaceful settlement, and our own country, after a noble display of concern for the wounded of both nations, had certainly a right to take the lead in this moral effort which our latest information gives us to hope will be eventually welcome to both nations. In the mean time our anticipations of an advance on wheat has become partially realised, and from 3s. to 4s. per qr. has been gained upon the lowest point. This may be traced to the derangement of commerce caused by the war. Belgium and Holland having been cut off from Baltic supplies by the late blockade, have naturally turned attention to our low quotations, and all along our eastern coast purchases have been freely making for those countries at better rates than would have been procured in London. This lessened the supplies to the metropolis, but little resulted at first, the London trade being well furnished by shipments from America and Russia; but now some of these have been wanted on foreign account, the case has altered, and English millers found themselves outbid by the foreign shippers. The advance, therefore, though reluctantly, was paid, and as not only Belgium has been taking English wheat freely, but orders have come from that great shipping port, Hambro', and have begun to be executed, a light has been let in upon the short supplies yet received in Germany, as also upon the poor condition in which those supplies have come to hand. America too, which was the only country much moved by our dull and declining markets, shows an advance of about 4s. per qr. on her recent rates, for at New York both depression as well as excitement are very soon felt, and we really think that the waste of this European war will yet further enhance prices. Even should peace be eventually agreed on, much of the damage done is irreparable, and must certainly be severely felt through the coming season. The following rates have recently been quoted at the places named: red wheat in Belgium 55s. to 58s., white Zealand at Rotterdam 46s. to 54s., wheat at Hambro' 50s. to 56s., red at Stettin 48s. to 50s., fine high-mixed at Danzig, 61 lbs. per. bus., 50s. 6d., red at Petersburg 41s., red at Milan 48s., white at Valladolid 52s., Saide at Alexandria 41s., at Berdianski 49s. 6d., freight

included, Milwaukee and Chicago, cost, freight, and insurance included, 46s. 9d. per 480 lbs.

The first Monday in Mark Lane commenced on fair arrivals of wheat, both English and foreign. The show of fresh samples from Essex and Kent during the morning being short, factors commenced by asking 1s. advance, but millers resisting it, sales were eventually made at the previous currency. The foreign inquiry was very limited, though no improvement on the previous rates was required. There was a quiet trade in floating cargoes at unaltered prices. The upward movement in the country not being responded to in London, but few places noted any improvement in prices; Sheffield, Hull, and Ipswich were occasionally 1s. per qr. higher for fine qualities, and Barnsley was about 1s. to 2s. per qr. dearer. These instances and a few others were the only exceptions to a generally quiet and unaltered range of prices. The change during the week at Liverpool was a rise of 2d. per cental on Friday. The Scotch markets were of the same tenor, Glasgow being inactive and unaltered as well as Edinburgh. The only difference noted at Dublin was that wheat and flour went of with greater readiness at fully as much money.

The second Monday had about an average supply of English wheat, and a good increase of foreign, with only a moderate exhibition of fresh samples on the Essex and Kentish stands. Factors once more tried for improved rates, but again failed, though fully the previous prices were paid. Though no difference of value was noted in foreign, there was a better demand than of late. With fair arrivals off the coast, the business transacted was at unaltered quotations. The country wheat trade this week again outwent the advices of London, there being in most instances a rise of 1s. per qr., as at Bristol, Gloucester, Birmingham, Gainsboro', Hungerford, Manchester, Newark, Sheffield, Newcastle, Boston, Sleaford, &c.; and a few, as Market Harbo' and Melton Mowbray, were up to 1s. to 2s. The only gain of Liverpool was 3d. to 4d. on Tuesday. The Scotch markets tended upwards: fine wheat at Glasgow being up 3d. to 6d. per boll, and Leith was rather dearer, as well as Kirkcaldy. Perth was 1s. per qr. higher. Wheat at Dublin underwent little change; at Drogheda there was an improvement of 6d. per bri.

On the third Monday there was a great falling off in the English supply, and a large increase in the foreign. But few fresh samples appeared this morning on the Kentish and Essex stands, as sales had been making at a relatively higher value in the country. Factors now saw their opportunity and insisted on millers paying fully 1s. per qr. more, and indeed, in some instances, on fine parcels the rise was about 2s. per qr. Some holders of foreign were also lucky enough to obtain 1s. per qr. advance, but generally the trade found the large arrivals against them. The sales of floating cargoes were free.

FOREIGN GRAIN.

	Shillings per Quarter.	
WHEAT, Dantzic, mixed	53 to 54	extra 56 to 59
Königsberg	51	53 extra 54 55
Rostock	50	52 fine 53 54
Silesian	43	50 white 50 52
Pomera, Meckberg., and Uckermark	red	50 53
Russian, hard, 42 to 43	St. Petersburg and Riga	44 47
Danish and Holstein, red	47	American 46 50
Chilian, white	56	Californian 56 59
Australian	57	39 56
BARLEY, grinding 26 to 29	distilling and malting	33 39
OATS, Dutch, brewing and Polands	23 to 29	feed 21 23
Danish and Swedish, feed	22 to 24	Stralsund 22 24
Canada 20 to 21, Riga 21 to 23, Arch. 21 to 23, P'sbg. 21		26 26
TARES, Spring, per qr.	small 00	large 00 00
BEANS, Friesland and Holstein		43 44
Königsberg	39 to 42	Egyptian 38 40
PEAS, feeding and maplo	33	fine boilers 37 38
INDIAN CORN, white	28	31 yellow 28 29
FLOUR, per sack, French	40	Spanish, p. sack 00 00
American, per brl.	22	24 extra and d. 25 26

IMPERIAL AVERAGES.

For the week ended Oct. 15, 1870.

Wheat	86,106½	qrs.	47s. 0d.
Barley	72,022½	„	36s. 7d.
Oats	4,217½	„	22s. 5d.

COMPARATIVE AVERAGES.

Years.	WHEAT.		BARLEY.		OATS.	
	Qrs.	s. d.	Qrs.	s. d.	Qrs.	s. d.
1866	73,880½	52 2	64,874½	42 11	6,772½	22 11
1867	79,292½	47 6	58,967½	41 8	9,788½	25 10
1868	70,763½	53 8	54,959½	45 7	5,293½	27 1
1869	62,774	47 0	45,295½	38 1	4,376½	24 1
1870	86,106½	47 0	72,022½	36 7	4,217½	22 5

AVERAGES

FOR THE PAST SIX WEEKS:	Wheat.		Barley.		Oats.	
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Sept. 10, 1870	48 1	35 8	23 10	23 10	23 10	23 10
Sept. 17, 1870	46 6	36 4	23 9	23 9	23 9	23 9
Sept. 24, 1870	45 4	36 2	20 7	20 7	20 7	20 7
Oct. 1, 1870	46 1	36 7	22 8	22 8	22 8	22 8
Oct. 8, 1870	46 5	36 11	21 11	21 11	21 11	21 11
Oct. 15, 1870	47 0	36 7	22 5	22 5	22 5	22 5
Aggregate of the above	46 7	36 3	22 6	22 6	22 6	22 6
The same week in 1869	47 0	38 1	24 1	24 1	24 1	24 1

FLUCTUATIONS IN THE AVERAGE PRICE OF WHEAT.

PRICE.	Sept. 10.	Sept. 17.	Sept. 24.	Oct. 1.	Oct. 8.	Oct. 15.
48s. 1d.
47s. 0d.
46s. 6d.
46s. 5d.
46s. 1d.
45s. 4d.

BRITISH SEEDS.

MUSTARD, per bush., brown 11s. to 12s., white	9s. to 10s.
CANARY, per qr.	62s. 66s.
CLOVERSEED, new red	64s. 66s.
CORIANDEK, per cwt.	21s. 22s.
TARES, winter, new, per bushel	8s. 8s. 6d.
TRIFOIL, new	28s. 30s.
RYEGRASS, per qr.	28s. 30s.
LINSEED, per qr., sowing 63s. to 70s., crushing	57s. 61s.
LINSEED CAKES, per ton	£11 15s. to £12 5s.
RAPESEED, per qr.	70s. 72s.
RAPE CAKE, per ton	£5 10s. 0d. to £6 5s. 0d.

FOREIGN SEEDS.

CORIANDEK, per cwt.	21s. to 22s.
CARRAWAY, new	31s. 32s.
CLOVERSEED, red 54s. to 61s., white	68s. 76s.
HEMPSEED, small 42s. to 43s. per qr.	Dutch 46s. 47s.
TRIFOIL	21s. 22s.
RYEGRASS, per qr	28s. 30s.
LINSEED, per qr., Baltic 56s. to 60s., Bombay	60s. 61s.
LINSEED CAKES, per ton	£11 15s. to £12 5s.
RAPE CAKE, per ton	£5 10s. 0d. to £6 5s. 0d.
RAPESEED, Dutch	68s. 70s.

HOP MARKET.

BOROUGH, MONDAY, Oct. 24.—Since our last report our market has assumed a firmer tone, especially for choice Hops, in which considerable business has been transacted at slightly advanced rates. Quantities of medium grades are still pressed

on the boards for sale, and barely realize recent quotations. The trade for foreign Hops rules dull, the imports up to the present time amounting to 3,226 bales. Latest advices from New York report the growth nearly equal to last year's quantity, but inferior in quality, only a small portion being really fine. The market is inactive, with low figures.

Mid and East Kents	£2 10	£4 4	£7 0
Weald of Kent	2 10	3 10	4 0
Sussex	2 5	2 14	3 10
Farnham and Country	3 15	4 15	6 6
Olds	1 0	1 15	2 10

POTATO MARKETS.

BOROUGH AND SPITALFIELDS.

LONDON, MONDAY, Oct. 24.—Fair supplies of potatoes have been on sale. There has been a moderate demand at about late rates. The import into London last week consisted of 3 casks 3 bags from Hamburg, 14 barrel Bremen, and 3 hampers 19 packages Rotterdam.

English Regents	45s. to 80s. per ton.
Scotch Regents	50s. to 80s. „
Rocks	40s. to 55s. „

COUNTRY POTATO MARKETS.—DONCASTER (Saturday):

A fair supply of potatoes this morning, and a good average business doing, prices remaining unaltered, namely, regents 7s. 6d. to 8s., and rocks 6s. 6d. to 7s. per load.—MALTON (Saturday): Potatoes, as frost keeps off, are freely offered. Dealers buy wholesale at £2 15s. to £3 5s. per ton, and retail rates are variable, the best sorts being 6d. to 8d. per stone, but some are at 4d. per stone.—YORK (Saturday): The weather being very wet, there was only a limited supply of potatoes, and little business doing, the price being from 7s. to 8s. per tub of 280 lbs. wholesale, and 5d. per stone of 14 lbs. retail.

PRICES OF BUTTER, CHEESE, HAMS, &c.

BUTTER, per cwt.: s.	CHEESE, per cwt.: s.	s.		
Dorset	150 to 154	Cheshire, new	64 to 84	
Friesland	133	Dble. Gloucester	60 74	
Jersey	124	140	Cheddar, old	68 90
FRESH, per doz.	16	20	American	66 72
BACON, per cwt:			HAMS: York	110 116
Wiltshire, green	70	74	Cumberland	110 116
Irish, f.o.b.	70	76	Irish	98 116

POULTRY, &c., MARKETS.—Turkeys, 5s. to 10s.; ditto

hens, 3s. to 4s. 6d.; Geese, 5s. to 8s.; Ducks, 1s. to 3s.; ditto wild, 2s.; Surrey Fowls, 3s. to 6s.; Sussex ditto, 2s. to 3s.; Boston and Essex, 1s. 9d. to 2s. 6d.; Irish, 1s. to 1s. 6d.; Rabbits, tame 1s. to 2s.; Pigeons, 6d. to 9d.; Pheasants, 3s. to 4s.; Partridges, 1s. to 2s.; Hares, 2s. to 4s.; white Scotch, 1s. 9d.; Widgeon, 1s.; Teal, 1s.; Woodcocks, 3s.; Snipes, 9d.; Gold Plover, 9d.; Black ditto, 6d.; Larks, 1s. per dozen. Eggs, best 12s. per 120.

LONDON CHEESE MARKET, Oct. 20.—We have very

little alteration to notice in the cheese trade during the past week. The supply of English cheese is quite equal to the demand, and in fact the stock of inferior and ill-flavoured cheese is large, and sells very tardily even at reduced prices. We have a fair inquiry for very prime meaty lump Cheshire cheese, also for really fine cheese in good condition, from 50 to 80 lbs. average. Fine Scotch and Swedish Cheddar cheese sell readily. American cheese is at present plentiful; the bulk of it is too full-flavoured to command attention, but recent arrivals being milder and purer in flavour sell rather quickly. A large business has been done in Liverpool in the best descriptions, at from 65s. to 68s. Trade generally is rather dull here. The arrivals of American cheese reported since our last are 36,607 boxes.—CORDEROY & Co., Mill-lane, Tooley-street.

MANSFIELD CHEESE FAIR.—Doubtless owing to the very wet state of the weather there was little cheese pitched. Prices ranged from 60s. to 80s. per cwt., at which prices a general clearance was effected.

CHICORY.

The market has been quiet at our quotations.

DELIVERABLE FROM WHARF IN BAGS, EXCLUSIVE OF DUTY.			
Harlingen	£11 10 to £12 5	Antwerp	£ 0 0 to £ 0 0
Bruges	12 0 13 0	Hamburg	0 0 0 0

TIMBER.

LONDON, SATURDAY, Oct. 22.

Only a moderate business has been transacted, at about late currencies.

BALTIC FIR TIMBER.

	s. d.	s. d.
Per load 50 cubic feet.		
Riga	65	0 to 75 0
Dantzig and Memel	75	0 100 0
Crown	85	0 85 0
Best middling	85	0 85 0
Good middling & second	65	0 70 0
Common middling	57	0 62 0
Small, short, and irregular	50	0 60 0
Stettin	57	0 65 0
Swedish	53	0 58 0
Small	47	0 50 0
Swedish & Norway balks	35	0 40 0

AMERICAN PITCH PINE.

United States	0	0 0
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BALTIC OAK TIMBER.

Memel, crown	115	0 135 0
Brack	90	0 110 0
Dantzig and Stettin	105	0 130 0
Crown	105	0 130 0
Brack & unseason'd	75	0 85 0

WAINSCOT.

	s. d.	s. d.
Per log 18 cubic feet.		
Riga, crown	85	0 100 0
Brack	50	0 55 0
Memel and Dantzig	80	0 85 0
Crown	80	0 85 0
Brack	40	0 47 0

DEALS AND BATTENS.

	£ s.	£ s.
Per Petersburg standard hundred.		
Archangel	12	0 13 0
Seconds	9	10 10 0
Petersburg	12	10 10 0
Wyburg	10	10 11 0
Finland and hand-sawn Swedish	7	0 8 0
Petersburg & Riga white deals	9	0 10 0
Memel and Dantzig	0	0 0 0
Crown red deals	0	0 0 0
Brack	0	0 0 0

LEADENHALL LEATHER MARKET.

CROP HIDES.

lbs.	d.	d.
28 to 35	12½	14
36 to 40	12½	14½
40 to 45	13	16
46 to 50	14	17
50 to 55	15	18
56 to 60	16	19

BUTTS.

lbs.	d.	d.
14	18	14
17	20	14
21	24	14
25	28	14½
28	32	15½
33	36	18
36	36	19
16	20	14
21	24	14
25	28	14
29	32	14
33	36	13
37	44	13½
45	50	13½

FOREIGN.

16	20	14
21	24	14
25	28	14
29	32	14
33	36	13
37	44	13½
45	50	13½

OFFAL.

Engls Shoulders	12	15½
Do. Cheeks and Faces	6	9
Do. Bellies	9½	11
Do. Middle do.	12	13½
Foreign Shoulders	10	12
Do. Necks	8	10
Do. Bellies	8	10
Do. Middle do.	10	11
Dressing Hide Shoulders	10	12
Do. do. Bellies	7½	9
Kip Shoulders	5	8
Do. Bellies	5	7

DRESSING HIDES.

	lbs.	lbs.	d.
Common	20	24	13 to 14
Do.	25	29	12½ to 14
Do.	30	34	12½ to 14
Do.	35	40	13 to 15
Saddlers'	30	35	14 to 16
Do.	36	50	14 to 17
Sulls	20	24	10 to 12
Shaved	14	16	15 to 16
Do.	17	19	14 to 16
Do.	20	23	13½ to 15
Do.	24	28	13 to 15
Do.	24	28	13 to 15
Scotch do.	16	24	14 to 16½
Coach, per hide			23s. to 30s.

HORSE BUTTS. SHAVED.

English	11½	14	13 to 15
Spanish	11	14	12 to 14

	£ s.	£ s.
Christiana & Sannesund deals, white and yellow	10	0 to 12 10
Second do.	0	0 0 0
Drum & Frederickstad battens, do.	0	0 0 0
Drum 6½-inch do.	0	0 0 0
Gothen g.g.d.stocks	10	0 11 0
Common	9	0 9 10
Gefle and Swedish 14-foot deals	10	10 12 0
Swedish deals and battens, long mill-sawn	8	10 10 10
Dantzig, crown deck, per 40-feet 3-inch	0	17 0 21
Brack	0	12 0 16

LATHWOOD.

Per cubic fathom.		
Petersburg	5	10 6 10
Riga, Dant., Memel, and Swedish	3	15 5 10

FIREWOOD.

	£ s.	£ s.
Swedish, red deal ends	3	15 4 5
Norway, red & white boards	3	0 3 10
Rounds and slabs	2	5 2 15

OAK STAVES.

	£ s.	£ s.
Per mille pipe.		
Memel, crown	170	0 180 0
First	139	0 150 0
Dantzig, Stettin, & Hambro' full-siz'd crown	120	0 140 0
Canada, stand, pipe	70	0 72 10
Punchon, 1,200 pieces	19	0 27 0
Bosnia, single brl., 1,200 pieces	27	10 28 0
United States, pipe	35	0 45 0
Hoghead, heavy and extra	30	0 35 0
Slight	20	0 22 0

LEADENHALL LEATHER MARKET.

HORSE HIDES.

	lbs.	lbs.	d.
English	13	18	12 to 13½
without butts	9	14	11 to 12
Spanish, salted, without butts, per hide	6	9	9 6 to 15 0
Do. do. do.	9	12	11 6 to 17 0
Do. do. do. inferior	7	10	10 0 to 11 0
Do. do. do.	6	8	8 0 to 11 0
Do. do. do.	9	11	10 0 to 14 0
Do. do. do. inferior	6	8	6 0 to 8 0

CALF SKINS.

	lbs.	lbs.	d.
Av. weight, per dozen	20 to 30	22	31
Do.	30	35	22 30
Do.	35	40	22 30
Do.	40	45	22 30
Do.	45	50	21 29
Do.	50	60	20 28
Do.	60	75	18 27
Do.	75	90	17 24
Do.	90	130	14 21
Welsh, unrounded.			
Av. wght., p.dozen	25	35	18 22
Do.	35	50	17 22

KIPS.

	lbs.	lbs.	d.
Petersburgh	4	7	16 19
Do.	7	9	16 19
Do.	9	10	15 18
Do.	11	13	14 16
E. I. drysalted	4	7	19 22
Do. do.	7	9	18 20
Do. seconds	16	18½	16 18½
Do. thirds	17	24	13 16½
Do. inferior	8	12	8 12

SHEEP SKINS.

Basils, unstrained, per lb.	10	16
Do. strained, per lb.	10	16
Do. facing, per doz.	7s.	30s
White Sheep & Lambs	4	12
Do. strained	10	20
Do. aprons	10	25
Tan Sheep and Lambs	10	30
Sumach skins	18	35
Do. skivers	8	18
Bark skivers	10	25

SUNDRIES.

Hog Skins, best	each	6 to 13
Do. seconds		5 to 7
Seal Skins, split, per dozen		0 0
Do. for bindings		0 0
Calf Skins, Sumach-tanned		0 0
Do. white		30 50
Horse Hides, white, each		8 15
Hide Splits, per lb.	7d.	10 to 11

ENGLISH WOOL MARKETS.

CITY, MONDAY, Oct. 24.—The Wool market has been devoid of any feature of interest. The demand has been less active; nevertheless a fair quantity of lustre and demi-lustre sorts has been disposed of at full prices. Other qualities have been neglected.

	s. d.	s. d.
CURRENT PRICES OF ENGLISH WOOL.		
FLEECES—Southdown hogs	per lb.	1 0½ to 1 1½
Half-bred ditto		1 3 1 4
Kent fleeces		1 1½ 1 2
Southdown ewes and wethers		0 10 0 11
Leicester ditto		1 1 1 1½
SORTS—Clothing, picklock		1 4 1 4½
Prime		1 2½ 1 3
Choice		1 1 1 2
Super		1 0 1 0½
Combing, wether mat.		1 2½ 1 3½
Picklock		1 0½ 1 1
Common		0 11 0 11½
Hog matching		1 4 1 4½
Picklock matching		1 0½ 1 1
Super ditto		0 11 0 11½

LEEDS (ENGLISH AND FOREIGN) WOOL MARKET.

(Friday last.)—There is no increased demand for English wool, and prices for some sorts are not easily maintained. The public sales at Bradford have not remunerated the holders of wool, the prices of hogs, which have been usually well supported, having ranged at comparatively low figures. The approaching sales of colonial wool are anticipated with much interest. German and French buyers are not likely to be numerous. At some Continental public sales of South American wool they abstained from buying, though prices were lower by 1½d. per lb.

FLAX, &c.

LONDON, SATURDAY, Oct. 22.

Hemp has been in limited request. Flax has been quiet, and the demand for jute has been inactive.

	£ s.	£ s.	£ s.	£ s.	
Hemp, Petersburg					
clean, per ton	35	0 to 0	Junk	29	0 30 0
Outshot	31	10 32	Fibre	29	0 36 0
Half-clean	29	0 29 10	Flax, Riga	75	0 0 0
Riga, Rhine	36	0 0	St. Petersburg, 12		
Manilla	53	10 65	head	53	0 54 0
East Indian, Sunn	15	0 21 0	9 head	44	0 45 0
Jute	12	0 12 0	Egyptian	0	0 0 0

BARK AND TANNING MATERIALS.

LONDON, SATURDAY, Oct. 22.

	£ s.	£ s.	£ s.
English, per load of 45 cwt. delivered in London	13	10 to 14	0
Coppice, per ton	5	0 5 10	0
Dutch, per ton	5	0 5 10	0
Manilla	5	0 5 10	0
Do. Coppice	5	0 6 0	0
French	0	0 0 0	0
Mimosa Chopped	8	0 8 17	0
Do. Ground	7	15 0	0
Do. Long	7	0 7 10	0
Cork Tree, Barbary			2 6 to 7 0
Do. Sardinian			9 0 10 0
Valonia, Smyrna			13 0 17 0
Do. Camata			13 0 14 10
Do. Morea			9 0 11 0
Terra Japonica			16 15 17 0
Do. Gambier in bales			19 0 21 0
Do. Ditto free cubes			24 0 24 10
Cutch, best Pegu			11 0 13 10
Dri Divi			10 0 17 0
Myrsinols			20 0 21 0
Sumach, Sicily, p.cwt.			20 0 21 0

PRICE CURRENT OF GUANO, &c.

Peruvian Guano direct from the Importers' stores	£14	per ton.
Bones, 27 lbs. to 27 15s. per ton.		
Animal Charcoal (70 per cent. Phosphate)	£5	per ton.
Coprolite, Cambridge, whole £3, ground £3 10s. per ton.		
Sulfate of Soda, £15 15s. to £16 5s. per ton.		
Gypsum, £1 10s. Superphosphates of Lime, £5 5s. to £6 5s. per ton.		
Sulphuric Acid, concentrated 1845 lb. per lb., brown 172 0/4d.		
Sulphate of Ammonia £16 0s. to £17 10s. Salt (in London) 25s. per ton.		
Blood Manure, £6 5s. to £7 10s. Dissolved Bones, £7 0s. per ton.		
Linsed Cakes, best American brl. £12 0s. to £13 10s., bag £11 to £12 15s. English 50. Marselles, £0 per ton.		
Cotton Seed Cake, £0 0s. to £0 0s. per ton.		

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Guano, Peruvian £13 17 6 to £20 0 0	Cotad. Cake, deor	£7 15 0 to £8 5 0
Bone Ash	5 10 0	15 0 Cottonseed, Egypt.
Phosphate of Lime	0 1 2	0 0 0 per ton
Linsed Cake, per ton		9 0 0 0 0
Amer. Chin. Ugs.	11 2 6	11 5 0 Ngr. of Soda, p. ct. 0 15 0 15 9
Linsd. Bomby. p.p.r.	2 15 0	

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DECEMBER, 1870.

THIRD SERIES.

THE

FARMER'S MAGAZINE,

AND

MONTHLY JOURNAL

OF

THE AGRICULTURAL INTEREST.

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THE FARMER'S MAGAZINE.

DECEMBER, 1870.

PLATE I.

TROJAN; A PRIZE HEREFORD BULL.

BRED BY MR. PHILIP TURNER, OF THE LEEN, PEMBRIDGE.

Trojan (3554), a red with a white face, calved August 5th, 1868, is by Franky (1243) out of Nonpariel, by Bertram (1513), her dam Exquisite, by Sir David (349) — Nell Gwynne, by The Knight (185)—Belle, by Sir Walter (352)—Myrtle, by Commerce (354).

Franky, a red with a white face, bred by Mr. T. L. Meire, in Shropshire, and calved in 1856, was by Walford (871), out of Old Perfect by Speculation (387), her dam Patience by Young Waxy (451). Franky has been a very successful bull, and especially famous for his prize steers.

Nonpariel, a red with a white face, bred by Mr. Turner, and calved on March 11th, 1860, has been a very profitable cow in the Leen herd, throwing her first calf in the summer of 1862, and breeding pretty regularly ever since, having up to Trojan's time only missed in 1863.

Trojan was first shown at the Herefordshire Agricul-

tural Society's meeting in Hereford, in the October of 1869, when he took the second prize in a very good class of yearling bulls, being beaten for first by Mr. H. R. Evans' famous Prince of Wales, when we spoke of Trojan as a "nice thick, high quality young bull." In 1870, at the Taunton meeting of the Bath and West of England Society, Trojan took the first prize for bulls not exceeding two years old, where "barring being a little narrow behind he promised to be the best of his year." And this proved to be the case, as at the grand show of Herefords at the Oxford meeting of the Royal Agricultural Society of England, Trojan again took the first prize for bulls above one and not exceeding two years old; when he was sold through the agency of Mr. Strafford, the Shorthorn auctioneer, for 90 gs. with Sidney as his destination. These were consequently the only three occasions in which Trojan was exhibited in England.

PLATE II.

PERFECTION; A PRIZE PONY.

THE PROPERTY OF MR. ALLEN RANSOME.

Perfection, bred by Major Barlow, at Hasketon, in Suffolk, in 1867, is by Confidence, out of a good old-fashioned sort of a galloway mare, just under fourteen hands high, once the property of Mr. Brewster.

Confidence, a roadster stallion, standing fourteen hands three inches high, was bred by Mr. Hughes in Lincolnshire in 1858. He was by Fireaway, dam by Johnny Boy, her dam by Flying Buck—Old Marshland Shales. Fireaway was by Fog, out of a mare by Teesdale's Fireaway, by Pagan. Major Barlow brought Confidence out of the Fens into the Eastern Counties, where, however, he only stood one season, when he was shipped for the King of Sardinia. During his sojourn at Hasketon, Confidence was shown at Islington, where he took the second prize in the Hack, Cob, or Pony Stallion Class; and again at the Bury St. Edmund's meeting of the Suffolk Agricultural Society, where he also took a second prize. We ourselves had the honour of acting as one of the judges at this show, when we said: "The two prize roadster stallions were both of a very superior sample. Confidence, the second here, was also the second at Islington, where it was the pretty general opinion that he should have been first. And, to stand alongside of, he is almost a model of the sort; but he was not so good-

going—a strong point for a roadster in which he was beat out of sight by Sir Edward Kerrison's Fireaway, one of the grandest movers ever seen." In Lincolnshire, Confidence has even the further credit of being the sire of some capital little hunting horses; and Major Barlow has a promising three-year-old by him out of his famous old Silverlocks, the best hunting brood mare at the Royal Bury St. Edmund's Meeting; although the mare was also covered by Surplice and Ace of Clubs, a certain sort of saving clause against breeding a hunter in so heterodox a fashion. Still the produce takes all after the trotter.

The dam of Perfection was sold, with the foal at foot, by auction to Mr. Nathaniel Catchpole, of Whitton, near Ipswich, and in turn the pony was transferred to Mr. Allen Ransome, the head of the well-known implement firm at Ipswich, who, in his own words, "much as he likes a steam-engine, loves a horse still more," and who has always a neat nag or two in his stable. At the Ipswich meeting of the Suffolk Agricultural Society, in 1869, Perfection, then only two years old, took the prize of £5 as the best pony between twelve and thirteen hands high. At the Islington show, in the summer of 1870, he took the prize and medal as the best pony stallion not exceeding thirteen hands three inches high, when we reported

him as "one of the handsomest things we saw out." At the Sudbury meeting of the Suffolk Agricultural Society he again took the prize in the twelve-to-thirteen hands pony class; and at the Oxford meeting of the Royal Agricultural Society the second prize in a class of pony stallions up to fourteen hands two inches high; when we said, "as a pony, Perfection answered the description best, and ought to have won." In fact, the conditions admitted animals just two hands higher than Mr. Ransome's pony; and at the November Meeting of the Council of the Royal Agricultural Society it was resolved, on the motion of Mr. Milward, that the height in this class be altered from fourteen-two to fourteen hands. Perfection thus looks like becoming a strong favourite for Wolverhampton in 1871.

Perfection is a dark brown pony, standing twelve hands two inches high. He is very handsome, bloodlike, and symmetrical, light and corky in his carriage, with excellent temper and fine action. "Had I not believed,"

said Mr. Ransome, "that for shape, style, and movement he was not easily to be surpassed, I dare not have given him so arrogant a name." Noticeably enough, neither in size nor character does Perfection bear the slightest resemblance to either his sire or dam. The mare has since had two more foals, both of which promise to reach to her own height; and the few things by Confidence left about the Eastern Counties are not only good in themselves, but much after the horse.

In their report to the *Journal* of the Royal Agricultural Society, the three Oxford "nag" judges thus speak of the pony class: "The two placed are very good"—Mr. Calder. "Two very handsome ponies, with perfect trotting action, such as are rarely to be met with"—Mr. Robson. "The second (Perfection) a remarkably nice pony; really more of a pony than the other, and a very good mover"—Mr. Jacob Smith. It will be thus gathered that, on all sorts of authority, Perfection is worthy of his title.

THE AYRSHIRE COW.

BY THE NORTHERN FARMER.

While on a visit to the West of Scotland recently, in the very home of the Ayrshire, I happened to spend a few days with the owner of one of the nicest and most even stocks of this breed which I have ever met. From end to end of both byres, each member of the herd looked as if it had been cast in one mould, so nearly were they alike in size, colour, set of horn, form of milk-vessel, and general configuration. Amongst them were several which had distinguished themselves as prize-takers at the county agricultural show, four cows having taken eight prizes. Looking carefully at these animals, one cannot help being struck with the perfection of form which they display, and the surprising appearance of milk, in comparison with the size of the cattle. Indeed, a prize animal is faultless in form, her small size being the only objection which those accustomed to the Short-horn or its crosses can bring against her. The true Ayrshire is decidedly small; but she is none the worse for being so, as her light carcase is easily kept up; and this feature of her character renders her all the more suited to the light and in too many instances inferior pastures of her native and surrounding counties. That the Ayrshire cow is not by nature suited to rich and succulent pastures, we have often had abundant proof, her distinguishing characteristics being speedily lost. On such land she grows to a much larger size, her beef-producing capabilities becoming largely increased; but while this change is taking place, the milking qualities for which she was originally famous decrease in a corresponding ratio. With a first-prize cow before us, her owner at our elbow to suggest the points which might escape our own observation, I jot down her description for the reader. The horn slightly upstanding, wide, clean, and somewhat thin. It may be well to remark that the enthusiastic prize-taker can shape the horn to the most approved show-form by beginning his manipulations not later than the age of two years. After that age the horn has got a decided set; and to effect any perceptible change, such a degree of force is necessary as to cause the animal considerable pain, and render the owner liable to a charge of cruelty. The forehead broad between the eyes, and nose not too long; on the contrary, rather conveying the idea of shortness. Neck thin and lengthy, a cow with a short, thick neck, of whatever breed, being apt to dry off soon, however well she may milk when newly calved. Shoulder sharp, and not too thick or fleshy. Rib well

rounded, and thickish round the heart. Short in the couplings, broad over the loin, and square to and over the rump. The tail neatly set on, and tapering to a fine point. It is desirable to have a wide calving-bone, danger from injury or death being in animals possessing this formation greatly lessened at the period of parturition. The udder in the Ayrshire is for the most part well set on; but in the prize-taker it must be absolutely faultless, as no beauty of form or regularity of contour will secure a place for an animal which has the misfortune to possess a badly-formed milk-vessel. Indeed, if the latter should happen to be perfection, other minor differences can afford to be overlooked. Viewing a well-formed vessel from behind, the thighs are completely filled, no hollow either at the top or sides of the udder being perceptible. This, when joined to thighs of considerable breadth, also another distinguishing feature of a well-formed cow, forms a point the beauty of which catches the eye even of the uninitiated. Looking at either side of the udder, no hollow or indentation should be discernible between the teats, its under surface perfectly level and solid, and the teats set at equal distances rather disposed to point inwards when the udder is empty, so that when newly calved the pressure of the milk will bring them perfectly straight. The teat itself is small and round, or what is locally termed thimble-shaped, so exceedingly small are some teats that hut for the exceeding softness and elasticity of the udder, and the freeness with which most cows of this breed give their milk, the process of milking would be both tedious and difficult. Lastly, in connection with the udder, the skin must be soft and capable of considerable distension, and should extend well forward under the belly. The legs should be short and the bone clean and fine, conveying an idea of careful breeding, of which fineness of bone is almost in every instance a sure indication. Taking a final look at the cow, of which the above is an exact description, we notice that her back is as straight as a gun-barrel, and her skin, without being ridiculously thin, is yet as soft and silky as the most ardent enthusiast could wish for, rising off the rib and filling the hand at the slightest touch. She calved on the 18th October, and three weeks after, on the day this was written, viz., 8th November, her measured produce was 14 Scotch pints, which sold on the spot at 4d. per pint, making the sum of 4s. 8d. as the amount realized by this cow's milk in one day. As a remarkable

instance of the influence of descent or pedigree on the milking properties of a cow, the owner of this one traced her back to several generations, not only her dam and grand-dam having been famed as large milkers, but every cow which possessed a portion of the same blood as well as her own immediate progeny. Visiting the owners of several stocks famed both for neatness of contour and excellent milking qualities, I found in every instance much stress laid on procuring bulls of the most approved blood, from herds the cows composing which were large milkers, and the success which each had attained in forming his herd and bringing it to the perfection in which we found it was mainly attributed to the influence of sires with a milking pedigree. The food given to dairy stock during the winter months is mostly cooked, and given moderately warm, this induces a copious flow of milk, the more especially as it is given sloppy, and with a considerable mixture of milk-producing material. Boiled turnips and corn-chaff forms the bulky portion of the food, and when a portion of beammeal, fine-thirds, and meal seeds is mixed with it, the whole forms a most appetizing mess, and keeps up a full flow of milk for a long period, from four to six months elapsing before they begin to draw in to any perceptible degree, and this more particularly if they have not been bulled. About the fourth week after being bulled the flow of milk begins to decrease whatever the feeding, so that when milk is scarce and high in price the cows are not permitted to have access to the bull.

A careful feeder attaches much importance to the feeding of his beasts, both as to being regular and punctual to the hours, and to the proper preparation of the food. If not properly timed the animals become restless and uneasy, soon losing condition, and falling off in their produce if irregularity is persisted in for any length of time. Nearly an hour previous to mixing the meals with the boiled food they are placed in a separate tub and scalded with boiling water. This swells the meal, and in

a manner cooks it, making it easier of digestion, and the animals can extract more nourishment from it than they could possibly do if hastily stirred in a moment or two previous to placing it before them. When this is done it enters the stomach in a raw state, and, swelling there, gas or wind is frequently engendered, and the health of the animal and even sometimes its life becomes endangered. It is evident that the animal cannot derive as much benefit from the raw or simply wetted meal as it would from that which has been thoroughly soaked in boiling water, and it therefore follows as a natural consequence that expense is gone to from which no adequate return is ever received. In the vicinity of large towns brewers' and distillers' grains are largely used to mix with the boiled food and form a welcome addition, as the flow of milk increases whenever they are used, however liberally the animals had been fed previously. The man entrusted with the feeding of the cattle must possess judgment and knowledge of his business, as a good deal of discretionary power must of necessity be accorded him. Should it happen that a man is placed in such an important position who lacks judgment, or who perhaps although fairly qualified in other respects is of a careless or easy disposition, considerable loss is almost unavoidable. If not fed with the utmost promptitude as to time and the quantities regulated with the greatest exactness it is vain to expect regularity of produce. Nay, a stinted feed at one time and an over-dose at another of such rich meal is almost sure to cause one or more of the animals to refuse their food, probably not taking to it kindly again for a week: should this happen the cow goes back in her milk, scarcely recovering herself for the remainder of the season. A newly calved Ayrshire cow is worth at present from 18 to 20 guineas, a great price when the small carcass is taken into consideration. However, any article is worth just as much as it will bring, irrespective of all other considerations, and a man wanting an animal of this class must give the market value or go without.

THE AGRICULTURAL LABOURER.

BY CUTHBERT W. JOHNSON, F.R.S.

The condition and the improvement of the state of our farm labourers can hardly be too often re-considered. In such inquiries we may be cheered by remembering that time has gradually and steadily improved the position of our peasantry. It is indeed pretty certain that down to the days of the Tudors the plight of the English country-labourer was about the same as in some portions of Russia in our own days—that is, little better than slaves or serfs, who, until the times of the present enlightened Russian Emperor, were sold with the estate to which they belonged. We have ever and anon notices in old English authors of the farm labourer which indicate the poorness of their condition, and the low estimation in which they were then held—and we can readily imagine this when we find how miserable was the work assigned in those days even to an English farmer's wife. Thus the earliest English writer upon agriculture, Judge Fitzherbert, in his *Boke of Husbandrye*, published in the year 1531, gravely tells us that amongst other refined duties, it was the business of the farmer's wife to help her husband to fill the dung-wain!

The class that we are striving to render more comfortable are much greater in number than is commonly understood. According to the census of 1861, the number of out-door labourers in agriculture were in England:

Males	914,301
Females	43,964

In Wales:

Males	128,874
Females	58,738

Now let us refresh our memories by referring to the cost of the bare necessities of life which each labourer requires for his subsistence, and to what extent his wages suffice to meet the demand upon them. It was at a meeting in October last of the Athy Farmers' Club that Mr. C. W. Hamilton addressed its members on behalf of the poor Irish labourer; and I need hardly attempt to give in any other language the facts which he then produced as reported in the *Irish Farmers' Gazette*. As he remarked, it appears from the sixth report of the medical officer of the Privy Council, that in England the average consumption of a labouring man is weekly:

Farinaceous dry food, reckoned as if all were	
bread	12½ lb.
Sugar, or treacle	7½ oz.
Butter, dripping, or suet	5½ oz.
Bacon, or meat	1 lb.
Milk	32 oz.
Cheese	5½ oz.
Tea	½ oz.

which he will probably procure for about 3s. 6d. per week; as for an average family, 10s. or 11s.

Dr. Smith in his dietary gives the example of a family living at Oakhampton, in Devonshire, consisting of hus-

band, wife, and three children under ten years of age:—Flour, 35lbs.; peas, 4lbs.; rice, 2lbs.; treacle, 1lb.; butter, 1lb.; bacon, 3lbs.; cheap pieces of meat, 4lbs.; skimmed milk, 10½ pints; tea, 1 oz., which cost 10s. 7d. They raised some potatoes besides in their garden. Now, this man's wages were only 10s. per week, so that the rent of his house and garden and clothing, &c., must have been dependent on the wife's industry. And as the Editor of the same valuable Paper lately observed: Dr.

Edward Smith, Poor-law Inspector in England, has published statistics of the diets in use amongst the working classes in Great Britain. From the following Table, which gives the diet of various labourers, it appears rather strange that the least potato-fed agricultural labourers in the United Kingdom are the Irish! They also, according to Dr. Smith, receive the greatest amount of actual nutriment (not merely bulk of food), and at the least expenditure of money.

WEEKLY DIETARIES OF LOW-FED OPERATIVES, CALCULATED AS ADULTS.

Class of Labourer.	Bread Stuffs.	Pota- toes.	Sugars.	Fats.	Meat.	Milk.	Cheese.	Tea.	Containing		Cost.
									Carbon.	Nitrogen.	
	Ozs.	Ozs.	Ozs.	Ozs.	Ozs.	Ozs.	Ozs.	Ozs.	Grains.	Grains.	s. d.
Needle women (London).....	124.0	40.0	7.3	4.5	16.3	7.0	0.5	1.3	22,900	950	2 7
Silk weavers (Coventry).....	166.5	33.7	8.5	3.6	5.3	11.6	1.0	0.3	27,028	1104	1 11 ³ / ₄
Silk weavers (London).....	158.4	43.8	8.8	5.5	11.9	4.3	0.3	0.6	48,288	1165	2 8 ¹ / ₂
Silk Weavers (Macclesfield).....	138.8	26.6	6.3	3.4	3.2	41.9	0.9	0.3	27,346	1177	1 8 ¹ / ₂
Kid glovers (Yeovil).....	140.0	84.0	4.3	7.1	18.3	18.3	10.0	0.9	28,623	1213	2 9 ¹ / ₂
Cotton spinners (Lancashire).....	161.8	22.6	14.0	3.1	5.0	11.8	0.7	0.7	29,214	1295	2 3
Hose weavers (Derbyshire).....	190.4	64.0	11.0	3.9	11.9	25.0	2.2	0.4	33,537	1316	2 6 ¹ / ₄
Shoemakers (Coventry).....	179.8	56.0	10.0	5.8	15.8	18.0	3.3	0.8	31,700	1332	2 7 ¹ / ₂
Farm labourer (England).....	196.0	96.0	7.4	5.5	16.0	32.0	5.5	0.5	40,673	1594	3 0
Farm labourer (Wales).....	224.0	138.7	7.5	5.9	10.0	85.0	9.8	0.5	48,354	2031	3 5 ¹ / ₂
Farm labourer (Scotland).....	204.0	204.0	5.8	4.0	10.3	124.8	2.5	0.7	48,980	2348	3 3 ³ / ₄
Farm labourer (Ireland).....	326.4	92.0	4.8	1.3	4.5	135.0	—	0.3	43,366	2434	1 9 ¹ / ₄
Mean of all.....	184.2	78.1	8.0	4.5	10.7	42.9	3.1	0.6	34,167	1500	2 7 ¹ / ₂
Average per day.....	26.3	11.1	1.4	0.6	1.5	6.1	0.4	0.1	4,881	214	0 4 ¹ / ₂

When addressing himself to the condition of the Irish labourer, Mr. Hamilton added: "As to the amount of food which will support a labourer and his family comfortably, it is very hard to form an estimate generally applicable, and it is clear that even allowing the same work to be equally paid for, the labourer cannot be as comfortable during the eight or ten years while he is rearing his family as he will be when some are old enough to assist him; but these are vicissitudes to which all families are liable. About 3s. per week is the average cost of food, necessaries, and clothing in the workhouses. This may be taken as the minimum for a labouring man, and if we add to it one-third we get 4s., leaving only 3s., besides what the wife and family can earn towards the weekly expense of an average family, out of what I may assume as the most usual sum paid in cash, viz., 7s. weekly. I know that 7s. weekly, along with house, garden, 2 cwt. of coal, and two quarts of milk, does enable a labourer to live comfortably, but that is quite equivalent to 10s. per week. In the county of Meath, generally speaking, the servant boys who are lodged and fed by their employers get from £8 to £10 annual wages, but this is probably equivalent to about £22 per annum, or 9s. per week; and as their expenses are only clothes and perhaps 6d. per week for tobacco, and an odd shilling for whisky, they are enabled to lay by their money, which among the best of them is too often applied to emigrating to America. The married labourer finds it harder to make both ends meet, for formerly he and his family lived on potatoes and buttermilk, and then the old wages of 8d. and 10d. were equivalent to a much larger wage than at present. Now, since they have risen to much more civilized ideas as to comfort in food and dress, oatmeal stirabout, at first regarded as a luxury, has gradually been displacing the potatoes: at the same time, though more slowly, tea and bakers' bread have taken the place of stirabout at the morning and frequently at the other meals. This is a change of more doubtful benefit; it is expensive, and frequently leads to the family going

in rags, and the labourer being deprived of the more nutritious food which would enable him to work with energy. In addition to his weekly wages of from 6s. to 7s., his wife usually makes something, say 1s. per week by poultry and 1s. by the pig, and if he gets a turf bank or some allowance of fuel, he is not much to be pitied. The weekly outlay of a labourer and his wife, with no family, may be about—

	s.	d.
1½ stone of Indian and oaten meal ...	2	0
Potatoes ...	0	9
Milk ...	0	8
Soup and candles ...	0	7
Rent ...	0	9
Clothes and tobacco ...	1	6
Fuel ...	0	9
	7	0

If there is an average family, the labourer cannot do with much less than the following:

	s.	d.
2½ stone mixed meal ...	3	4
6 stones potatoes ...	1	6
Milk ...	1	2
Candles, soap, &c. ...	1	0
Fuel ...	0	9
Rent ...	0	9
Clothes ...	2	0
Tobacco ...	0	6

11 0

I have alluded to the condition of the Russian peasant. Now, in a late Parliamentary paper, which contains returns from our ambassadors and consuls in foreign countries, we find that, on rising, the Russian peasant will eat a hunch of black rye-bread and a bowl of milk or curds; but his principal meal, at noon, consists generally of cabbage, of mushroom soup, of which meat is seldom the basis; of baked buckwheat, eaten with milk,

oil, or butter, according to the means of the family; and of an unlimited quantity of bread. Potatoes are not a staple of food, except in the vicinity of capitals, or in the neighbourhood of German colonists, who have taught the Russian peasantry around them to overcome their prejudices against the cultivation of "the devil's apple," the introduction of which, at the commencement of the present century, led to so serious agrarian riots in the provinces of the Volga basin. The drink is mostly water; a liquor made of fermented rye, called kvas, and small table beer, being only found on holidays in the houses of the richer peasantry, and that principally in the northern and industrial provinces. Spirits are not consumed at meals, but only on occasions when the peasant's object is to get merry and drunk. These occasions present themselves on holidays, of which there are many during the year. The bowl of soup, the pot of buckwheat, and the loaf of rye-bread are again placed on the table for supper. It is not, perhaps, so much poverty as the discipline of the Russo-Greek Church that compels the Russian peasant to take but little nourishing food. On about 210 days in a year he is not allowed to eat meat; and although sick persons, and women for a short time after childbirth, can obtain dispensations, they seldom avail themselves of the power, clinging superstitiously to the severest forms of fasting, and that in a climate which requires a more than average consumption of animal food. The loaf of rye-bread, it is true, but seldom fails the Russian peasant family, except in years of famine or exceptional distress; but at least half of the infant mortality in the agricultural districts is referable to the inability of the mothers (fed on sour rye-bread and cabbage or mushroom-water—worn out with excess of fasts and defect of sleep) to nourish their infants. The following table, compiled from actual account books, gives, in English quantities and value, a tariff and estimate of the diet of Russian agricultural labourers, on a large scale and under liberal management, and therefore under the most favourable circumstances:

ANNUAL CONSUMPTION PER MAN.

Description of Victual.	English Weight.	Value in English Money.
Flour—rye	451 lbs.	£0 19 0
Flour—wheat	421 lbs.	1 6 7
Grits—buckwheat, &c. ...	5½ bush.	0 4 9½
Peas	30½ lbs.	0 1 1¾
Oil and butter	17½ lbs.	0 4 6
Salt	32½ lbs.	0 1 4¾
Meat	117 lbs.	0 13 2
Fish and cabbage	1¼ lbs.	0 0 9½
		£3 11 4½

Thus, a Russian peasant, when most favourably situated, will get 12 ounces of meat, principally in soup, on 155 days in the year, and 2lbs. 6oz. of bread and flour, besides buckwheat, peas, &c., at a cost of 2½ per diem; while the quantity of flour consumed by these agricultural labourers may be taken as the average consumption of corn per head in the villages, with, however, the difference that the relative proportion of wheat will be smaller by two-thirds. Taking all the provinces together, the quantity of meat will average in the same districts only one-half the quantity shown in the estimate. In the capitals the cost of feeding servants is reckoned at about 20 kopecks (6d.) per head per diem.

The Russian peasants, it appears, erect the huts in which they dwell, for as the report of 1870 adds (p. 303): "The agricultural labourers live almost entirely in houses of their own, which are throughout the empire constructed in the following simple fashion:—Logs of the red pine are cut into the required lengths, 3, 4, or 5 fathoms, according to the proposed size of the house.

The lengths are placed one above the other, the ends being dovetailed together, thus forming as it were a huge box of logs. The doors and windows are then cut out, and the pieces carefully numbered by notches, the box is now taken to pieces, and the actual building commences; this is done by placing the lowest tier on boulder stones (and wooden posts for foundations, then each succeeding tier is added, moss or hemp and tow being used between each layer to fill up all interstices. The walls thus completed, floors and ceilings of red or white pine boards are added, both ceiling and flooring generally being double, with a layer of earth between, the whole is crossed over with boards. The roofing generally consists of wooden tiles. In one corner of the room a large brick stove, similar to an English baking-oven, is built, a chimney, either of bricks (put loosely together without mortar) or of wood, is carried through the roof, and the house or hut is complete. Here the whole family lives. Generally the house contains but a single room, but sometimes a well-to-do peasant has a house of three or four rooms, and even uses plaster and paper-hangings for the walls of his hut; this is especially the case in the grain-growing Governments, such as Tamboff, Voronje, Penso, Saratoff, Samara, &c., where the peasantry are more industrious, better fed, housed, and clothed, than in the Northern Governments."

In travelling from Russia towards our own country we arrive at the territories of the King of Prussia. Here the reporters give us a more full and a more favourable account of the condition of the agricultural labourer. From a paper by Mr. Petre forwarded by Lord A. Loftus, we learn (report, p. 49) that the labouring classes in that country, agricultural and industrial, may be ranged under the following heads:—

1. Agricultural labourers, male and female, who have a permanent engagement, and who live with their employer (farm servants);
2. Agricultural labourers ("Tagelöhner") who generally contract to work for a considerable period of time for the landed proprietors, but very often leave their employment at the end of a year;
3. Domestic servants of all kinds;
4. Small tradesmen or artisans ("Handwerker") who either work on their account, single handed, or with slight assistance, or who work by contract for others;
6. Assistant workmen of tradesmen or artisans (journeymen and apprentices);
7. Ordinary factory operatives, who have not devoted any length of time as apprentices to learning a particular trade;
8. Porters and carriers of all descriptions employed for commercial or industrial purposes;
9. Workmen or day labourers ("Tagelöhner") without any regular or permanent engagement;
10. Workwomen.

Although, adds Mr. Petre, my report professes to deal more exclusively with the purely industrial population, I have included the agricultural section of the labouring classes in the preceding category, for the reason that the wages of agricultural labour in this country influence to a considerable extent the condition of the working classes generally, and it is exceedingly common for them to exchange one branch of labour for another.

Of the agricultural labourers or farm servants mentioned under No. 1, more than half are men and boys. Girls of this class are not so numerous as the women who work as "Tagelöhner," or day labourers (No. 2). The chief duties of the farm servants in general consist in tending the cattle and flocks, in keeping the buildings and yards clean, sowing the seed, and dairy work. They have to work also in the distilleries and breweries which are com-

monly attached to large farming establishments, and they are employed generally in the more responsible and important duties of the farm.

At the manor-houses or gentlemen's seats ("Edelhöfe") it is usual to employ a large number of these farm servants. The peasant proprietors content themselves generally with one man and a boy, and several maid servants. Formerly, when labour was more abundant than it is now, the landowners and farmers used to set their faces against their farm servants marrying, but their anxiety now is to induce them not to leave their employment, and with this object they encourage them to marry. The married farm servants are called "Deputaten," or persons receiving an allowance in kind, to distinguish them from the other farm servants, who all take their meals together at the farm. The "Deputaten" receive, in addition to their wages, a certain allowance of corn, potatoes, &c. This primitive practice is, however, gradually giving way to the system of paying full wages in money. Payment in kind, as a rule, is now only made when the farm servants themselves choose to be paid in this manner, as they very often do when the price of corn is sufficiently high to enable them to make a profit out of it.

The want of trusty farm-servants is beginning to be universally felt by the landowners and farmers. The causes of this growing change are easily traced. A larger and more varied field of employment has been occupied by the development of industry and by increased facilities of locomotion. A yearning for independence, and for the possession of a home of their own, prevails even among the poorest of these farm servants. The doctrines of socialism too, which have penetrated, though not to any very great extent to this class, may have contributed in some degree to alienate them from their employment. The result, however, is, that they receive now higher wages and better food than formerly, and their condition is altogether different from what it was. Improvements have been introduced on most of the well-managed properties as regards the way in which the farm servants are lodged, but much still remains to be done in this respect. They generally sleep in the hayloft or in a garret in the cow-house. In all other respects, however, the treatment of farm servants is more considerate than it used to be, and the consciousness of their increased importance, to which this improved treatment may partially be attributed, renders them at the same time far less docile and obedient to their employers than formerly. Those who are in the service of the peasant proprietors, with whom they are more or less on a level in point of culture, are in the habit of taking their meals at the same table with their employers, and differ little from them in their social habits.

It has been observed that, after a series of good harvests, the farm servants, male and female, frequently give notice to quit, in order to work instead for daily wages as "Tagelöhner," which gives them more ready money.

Bad harvests and high prices, on the other hand, have the effect of inducing them to resume permanent employment as farm servants in preference to gaining a more precarious livelihood as independent labourers.

The second class of agricultural labourers, or "Tage-löhner," as they are termed, as distinguished from farm servants, may be divided into two categories: those who contract to work for the landowner or farmer for a certain definite period, ranging from one to three years, and those who have no fixed engagement, but who work for different employers as opportunity offers.

The former class of labourers is very general throughout the Eastern Provinces of Prussia, but rare in the manufacturing districts. They are usually married, and are bound by their contract to provide, in addition to their own labour, from two to four persons, called

"Schaarwerker," to assist them. The system, in short, is a modified form of gangwork. The labourers themselves are bound to work upon the estate from 280 to 300 days, and the "Schaarwerker" (generally the family of the labourer), on the average, 250 days in the year. They are lodged gratis, or at a low rent, in the "Innsthauser," or farm lodging-houses belonging to the estate, and have a certain portion of land (from $\frac{1}{4}$ to $1\frac{1}{2}$ acres) allowed them, which is manured and cultivated by the proprietor, a shed for goats or pigs, and some small allowances in kind. The wages and conditions of labour for this class of workmen vary too much according to circumstances, even on the same estate, to admit of generalisation.

On the whole, their condition is less favourable than that of the farm servants. The class is recruited mostly from amongst those who have made improvident marriages, and are forced by the pressure of narrowed means and increasing families to sell their labour at a low rate. Those amongst them who have small families to provide for, or whose children are of an age or condition to contribute to the support of the family, are however decidedly better off than the farm servants, and generally enabled, in the course of a few years, to save a tolerable competency. This is more especially true of those who abstain from the immoderate use of spirits.

The prevailing system of contract work gives the industrious agricultural labourer a fair chance of earning very adequate wages, which he generally supplements by threshing-work during the winter months.

The house accommodation provided for the "Innstleute," or labourers who are lodged by the landed proprietor, is very inferior on most properties, both from a sanitary point of view and also on the score of comfort. Little attention has been paid to it, and the normal standard of comfort and of the sanitary conditions of rural dwellings in general is low. Very little has been done of late years in this direction by the landowners, owing to the heavy charges on estates and to the scarcity of money.

Agricultural labourers who work independently, and are not lodged, like the "Innstleute," by their employers, receive at least 20 per cent. higher wages in money than the latter; and they have this advantage over them, that in harvest-time they can get almost any wages they choose to ask from the landowners and farmers who are short of farm servants and "Innstleute." This is counterbalanced on the other hand by their forced idleness during the winter months, which generally swallows up all their savings, and has altogether a bad influence over their moral conduct. They usually marry in order to have a home of their own, and buy a bit of land on borrowed money to supply them with potatoes and vegetables. Some of them lodge with the peasant-proprietors for whom they work, and several families are often crowded together in the same house.

One peculiar feature of agricultural labour in this country is the custom which prevails in several provinces of large bodies of labourers associating together and migrating during the summer months. The system followed is this. An experienced man is deputed to select and report upon some district suitable for the purpose. He then makes a contract for the work which is to be done, and twenty or more labourers, male and female, associate together and undertake harvest or other work for one or more of the large landed proprietors, whose estates are situated sometimes more than 200 miles away from the home of the labourers. When they have finished their work, and received the money which they contracted for, and which is equally divided amongst them, they return home for the winter. Labouring gangs of this kind migrate annually from the highlands, east of the Vistula, which afford but a scanty

subsistence to the population, to the fertile lowlands across that river.

From the few districts along the Warta, an affluent of the Oder, formerly colonised by Frederick the Great, and now over-populated, similar bands of labourers travel every summer to the neighbouring provinces. The beetroot sugar manufactories in the neighbourhood of Magdeburg are supplied in this way from the Eichfeld, a sterile district of the Southern Hartz, with the additional labour which they require at a certain period of the year. Similar bodies, called "Hollandsgänger," crop over from Westphalia into the Netherlands; some as agricultural labourers, others as tile-makers; and hundreds of masons migrate annually from Silesia to the North Eastern Provinces of Prussia during the summer, to earn money for their support during the winter months.

As we continue our tour from Russia, and through Prussia, towards our own country, we arrive in the Netherlands, and here we find a superior condition of the tillers of the soil. Mr. Sydney Loch, on the authority of Mr. Nicholls, in his account of the labourers of Holland (*Report*, p. 16) observes: "Nothing can exceed the cleanliness, the personal propriety, and the apparent comfort of the people of Holland. I did not see a house or a fence out of repair, or a garden that was not carefully cultivated." But he does not stop here, for while apparently intending merely to continue the description, he gives, perhaps unconsciously, the secret of such unwonted happiness. "The Dutch people," he continues, "appear to be strongly attached to their Government, and few countries possess a population in which the domestic and social duties are discharged with such constancy; a scrupulous economy and cautious foresight seem to be the characteristic virtues of every class; to spend their full annual income is accounted a species of crime."

There can be little doubt that if the labouring classes in Holland are prosperous and happy, they owe it to their own patient industry, their provident habits, and their natural contented disposition. Living in a land which owes its very existence to the ingenuity and labour of man, at any moment liable to be called out to work again for their lives and homesteads, they owe little to nature, much to themselves. What they acquire with pain they guard with care. The Dutch labourer, whether in field or town, reflects on the value of his earnings; the energies which a warmer blood and a more impetuous temperament would expend in political excitement, he consecrates to the improvement of his own individual lot; the question of the hour, the news of the day, possess little interest for him; he prefers his Bible to his newspaper, and his family fireside to the public, the reading-room, or the political meeting. Jealous to a degree over the liberty he already possesses, he does not sigh for more, and prefers enjoying in peace the advantages already secured to him, to agitating for others which his fathers did without.

The Dutch artisan can live comfortably and contentedly on what would ill suffice to satisfy the wants of an English labourer. He gets lower wages, he lives in a country where protection is still professed and duties are still high, where the necessities of life are about as dear as in England and the luxuries dearer, and yet his home is happier, and his family healthier than many which could be found elsewhere. Spending less on himself, he has more left for his children, and what he saves in beer he spends in bread.

In taking the retrospect we have thus done of the condition of the English farm labourer of the olden time, and of his plight in Northern Europe, in Germany, and in the Netherlands, we may well be encouraged to rejoice at the progress we have made in our own island, and be prompted to still further efforts in so good a direction.

Without attempting to exhaust the subject, let us glance at one or two only of the improvements which in some portions of our island are yet to be made for the comfort of the labourer; and can we have this better done than in the language of Canon Girdlestone, who, on a recent occasion, when addressing a body of the fine agriculturists of Devonshire remarked, very truly: "First, as regards the home of the labourer. We have most of us, more or less, some good horses of our own, and we are, no doubt, anxious that they should do a good day's work, and do it well and cheerfully. In order to do this, one of the first things to do is to secure a good stable. A cold, draughty stable, or a stable low, small, badly ventilated, and badly drained, or one in which, without any separation of stalls, all our horses would be huddled together, is there any one of us but, putting all views of humanity out of the question, and merely with reference to our own advantage, would at once say, 'With such a stable, my horses are more likely to be in the hands of the farrier than of the ploughman: with such a state of things I shall get no work done?' It is exactly the same with the human animal. Laying aside both Christian and moral considerations, a healthy and comfortable home is essential to the efficiency of the working man, and is, consequently, of as much importance to the employer as to the employed. The following is my idea of the sort of home a labourer ought to have if he is to be able to do a really good day's work. A house well roofed, drained and ventilated, and floored, with a fireplace in every room, and every window made to open, with downstairs a good family room, with handy grate, oven and boiler, and a scullery at the back, with door to the garden, with upstairs never less than three, and if possible four, bedrooms, with a good garden round it, a pigsty, and other conveniences so constructed and screened as to be decent in appearance as well as in reality. The labourer's home should be on the farm if possible, or, at any rate, as near as can be to his work. A long walk to and from his work is most exhausting to the labourer, and very unnecessarily so, and of course, at the same time, most damaging to the farmer, who wants the whole strength of those who work for him, and to whom it is of great importance that they should be fresh when they come upon the farm. A moderately-sized potato ground, in addition to the garden, is a great advantage to the labourer; whereas, if too large, it is apt to embarrass and over-fatigue him. If to some one or two cottages on each farm there were also added a cowshed, with facility of pasturage for a cow, and these cottages were reserved as prizes for the most skilled, industrious, and thrifty labourers, the employer would reap as much advantage as the labourer himself from the improved character of both workmen and work, to which such sort of emulation, wherever scope has been given for it, has always led, and is sure to lead. This, then, is my idea of an agricultural labourer's home. As far as providing such a home is concerned, it is, of course, almost entirely a landlord's question; but I have no hesitation in saying, nevertheless, that if I were a farmer, laying aside all regard for the labourer, and with a view to my own advantage alone, I should no more think of taking a farm without stipulating for proper and healthy labourers' homes upon it than I should of being content with stables and cowhouses of such a sort as would be sure to make my horses and cattle unhealthy and unprofitable.

"I pass on from the home of the labourer to his work. This ought, as far as possible, to consist of piece-work. I say as far as possible, because I am well aware of the difficulty there is in bringing many agricultural operations under the denomination of piece-work. Nevertheless, many of those difficulties may, by perseverance and good management, be overcome, and, for his own sake as

well as in the interest of those who work for him, it is well worth the farmer's while to overcome them; for until human nature is very much changed from what it is now, labourers will be found, even without reference to age, to differ very widely from each other. Physical strength and power of endurance, skill, industry, a desire to do a honest day's work, and many other particulars, are points in which there is sure to be an immense amount of difference. Yet, unless the amount of a man's earnings depends upon the amount of work done, it is difficult to see how to avoid paying all these various characters of labourers exactly the same amount of wages, and so inflicting on the farmer both a present and a prospective loss, by getting now a less amount of work than he ought for his money, and discouraging improvement in the class for the time to come. It is very important also for all parties that in every case in which a system of day-work is adopted the number of hours constituting a day's work should be definitely settled and understood, and that an account of all aftertime employment should be accurately kept and paid for, not by beer or cider, or other refreshment, except perhaps in time of harvest, but in money, and in the proportion it bears to a day's work.

Now that thrashing is almost entirely done by machinery, it is very difficult to provide wet-weather work for agricultural labourers. Yet when the immense loss of income which in the changeable climate of Great Britain and specially in the western counties accrues to the labourer from bad weather, unless paid by the week, with no deduction for wet days, and the difficulty in which the loss involves him are considered, it will be obvious that a farmer who wishes his labourers to have well-nourished, powerful bodies and minds free from anxiety will do his best to secure them against the possibility of many days' forced idleness in the course of a year, involving of course short commons for themselves and families."

Such are some of the facts, so well glanced at by Mr. Girdlestone: he was then addressing a body of men not likely to forget the comfort of their labourers. In travelling towards the west, through Devon and Cornwall, we have ever regarded with pleasure the independent bearing and the comfort so noticeable in the peasantry; and this fact should prompt us to greater efforts in other districts of our Islands where their condition is not nearly so good.

THE FOREIGN CATTLE MARKET.

In the Report from the Committee of the Farmers' Club for the year 1866, the following paragraph occurs: "Since the last Report was agreed to, the Committee has held several meetings on the subject of the cattle-plague, and also had an interview with Sir George Grey at the Privy Council Office, when a Memorial was presented. The recommendations embodied in that Paper were not only received with every attention by the Home Secretary, but their spirit very generally adopted by other deputations—the Farmers' Club being the first of any of the Agricultural Societies that sought the Government with reference to this terrible visitation." This interview took place in November, 1865; and one of the chief clauses of the Memorial went to recommend "that all foreign beasts imported be killed for food at the point of disembarkation immediately on their arrival, or within such reasonable time as may allow of their sale to the butcher." At a meeting of the Committee of the same Club on Monday, Nov. 7, it was resolved: "That the thanks of this Committee be offered to the Right Hon. W. E. Forster for the energetic measures which have been recently taken by the Privy Council to prevent any importation of foreign cattle diseases. At the same time, the Committee begs to express a hope that separate markets for the sale and slaughter of all foreign stock will be enforced at the ports of landing throughout this kingdom." And, noticeably enough, at a meeting of the Court of Common Council on the same day a Report recommending the establishment of a foreign cattle market by the Corporation was adopted.

It will be thus seen how the farmer has at length succeeded in obtaining that measure of safety which he has been so long seeking, as we believe that the vote of thanks accorded to the Vice-President of the Council could not have been better timed. There can be no doubt but that the City has been very determinedly looked up in this matter by the Government, while a Liberal Ministry has been mainly instrumental in carrying out a movement that some people were pleased to regard as a mere revival of the old cry for Protection. And here, as we take it, the home-producer's interest, at least in this branch of the business, is at an end. So long as the new market be constructed with reasonable expe-

dition, and so long as this be placed sufficiently far away to ensure him from all danger of contagion, it can really be of little moment to the farmer whether the site be on the North or South side of the river, or if the convenience of the Whitechapel butcher should or should not have been becomingly consulted when arriving at a selection. All such points as these rest entirely between the City and the consumer, as represented by the trade; as it is only fair to assume that the Corporation in making its arrangements has given every possible care and attention to the requirements of the public. Of course there will be some still ready enough to complain and protest, as we hear certain salesmen and butchers have petitioned against Deptford Dockyard, are others in favour of it, just in fact as they wrote *pro* and *con* so recently in *The Times*. But with this dispute the English farmer has little or nothing whatever to do. The City has determined on, and the Government will give its countenance to a site, so that there should be strong warranty of its capabilities, while there could, surely, be nothing in much worse taste than any further agitation or demonstration from a quarter which, so far, has simply obtained all that it asked for. There is as yet no complete railway communication it is urged, although it might as sensibly be said in protest there is as yet no market constructed, for the one may be as easily and simultaneously supplied with the other. The veterinary authority of a contemporary says: "It cannot be questioned but that the road to Deptford is in all respects a better way than that to Plaistow, Millwall, or North Woolwich." And again: "The Brighton and South Coast and South-Eastern Railways run within a short distance of the dockyard, and there will be no difficulty in completing the communication between those lines and the Foreign Market if necessary; but good cart roads are of much more importance than good railroads. Most of the butchers who will buy and slaughter cattle at the waterside market will convey the carcasses to their destination in their own carts."

While, however, we are giving our thanks to Mr. Forster, we must not be altogether unmindful of the Civic authorities whose task has been by no means an easy one. In the outset they have had of course to encounter a number of disinte-

rested people, who had each and all the very best ground for the purpose to sell. In fact, we scarcely ever remember such an outcry as has been raised over the extraordinary suitability of this place and that, the very safety of the country apparently depending on the purchase of some Company's docks or somebody-else's yards. But even beyond this the Markets Committee has had to withstand the opposition of some of its own brother Councilmen. Although the report was eventually carried by "an overwhelming majority," this was only accomplished in the face of sundry amendments, such as "the Report lie on the table," or "the Report be sent back for reconsideration." Moreover, Mr. Bedford, "with many others, repudiated the idea of making a new market at all, and for many reasons. The market was absolutely unnecessary for any possible purpose, except for raising the price of the food of the people, or for the purpose of putting money into the pockets of the landowners of the country; and this was the secret of the Bill. It was a Bill to raise the price of food;" while Mr. Game, a member of this very Markets Committee, "did not rise to support a site, but to take this opportunity of saying, as a member of the Markets Committee, that, during the time this question had been in agitation, he had visited the sites on two or three occasions; and he had no doubt that, if it were necessary that there should be a foreign cattle market in the metropolis, the site chosen would be the most preferable. But it was a mistake to suppose that a large portion of the meat which came to London from abroad was consumed in the East-end; two-thirds were consumed in the north-east and the south-west. If they took the other side of the river, there was but one-third consumed there. For that reason he believed it would be greatly to the advantage of the trade and to the public, if a foreign cattle market was to be made, that it should be made on the south side; but he was of opinion that they did not want a foreign cattle market in London; it was the greatest absurdity ever brought before the public. They were told that it was to be a paying concern, and they were asked to rush into it.

They had been told that there was an Act passed that there should be a foreign cattle market for London, but there was no Act compelling them to build it." We quote thus much to show that it was not quite such plain sailing with the Corporation as might have been imagined; as, indeed, the last sentence or so of Mr. Game's remarks is very suggestive of what might have happened. There is no Act compelling the City to build a market, but the Common Council might have delayed doing so for another year or more, when the power to deal with the business would have passed into other hands. It is the fashion to laugh at the civic authorities, and no doubt some disappointed speculators will rail loudly enough at the conclusion come to; but if Mr. Forster and the Veterinary Department of the Privy Council Office are satisfied that a really eligible site has been chosen, we cannot see that any one, excepting always the great Whitechapel interest, has any cause to complain.

On the Monday the Farmers' Club, as we have stated, passed a vote of thanks to Mr. Forster, and on the Tuesday the Central Chamber of Agriculture put a resolution very much to the same purport. There can be no question but that such a compliment has been well merited, as even at this moment some further warning is about to be issued as to the unsatisfactory condition of the continent, where the cattle disease rages, and the necessity for every vigilance on our part. From his first interview with the agriculturists we have spoken to the grave care which the right honourable gentleman has given to the question, and in his sanction of site, we repeat, there is something of a guarantee. It must be borne in mind that the first choice of the Markets Committee was not approved by the Lords of the Council, and this of itself serves to show the close supervision which the proceedings of that body has received from the Government. Greatly as such a market is needed, we confess that we have wearied of the way in which the matter has been too often discussed; as we would counsel the farmer to be no party towards raising any further difficulties now that his object is virtually obtained.

NO POLITICS!

At a meeting of the Devon and Cornwall Chamber of Agriculture, in October, Mr. Henry Clark called attention to what may be termed a Tenant-Right Agreement that he had framed, and upon which he desired the opinion of the members. As after a very brief discussion the consideration of the subject was adjourned until another meeting, to be held early in December, we had proposed to defer any notice of our own until the West-country farmers had more definitely delivered themselves. Sufficient be it to say here that Mr. Clark's draft contains a schedule of allowances for lime, bones, cake, and purchased manures, extending in some cases over four or five years' use previous to the termination of the tenancy. Then the landlord makes claim to nothing more than the winged game, and beyond a few fiddling clauses, such as "the tenant shall mow, spud, or roof up the thistles," and "cleanse and keep open the iron and lead gutters," this same model agreement looks to be conceived in far more liberal or give-and-take spirit than we often find in productions of this design. So far the meeting manifestly did not know very much about the matter. One man said in some sort of objection that "covenants must vary with every county;" another that an agreement with compensation clauses was "not Tenant-Right at all;" and a third that

"there was no system they could lay down as applicable to a whole district," as, of course, no one ever argued there could be. About the most pertinent remark was offered by Mr. Perry, who thought that "the way to secure Tenant-Right would be to create local courts of arbitration, which would be simple and inexpensive;" and when we come to legalise the principle there may be something more to say to this suggestion.

Nevertheless, it is clear enough from all that is just now passing that they are getting keenly alive to the necessity for some Tenant-Right or security down in the West. A recent case has created a deal of discussion, and so lead every man to ponder more carefully over the stability of his own position. It thus happened that at the Sowton ploughing match dinner Mr. Roach made this question the chief point of his speech. Game he had said, was had enough, "but there was another thing which tended to check the productiveness of the soil more than anything else he had named. He alluded to the insecurity which landlords gave to their tenants for the outlay of their capital." And again, "he was at a great loss to find why landlords, as a rule, should object to giving a good tenant a lease. He was sorry to say that the only reason he could suggest was that they wished to have political control over their tenants." And

here Mr. Roach was called to order. Mr. Daw said "No politics," Mr. Sanders was "quite sure that in introducing political topics they would be introducing a fertile source of discord," and Mr. Kennaway declared that "it was quite impossible at convivial gatherings to go into matters which required to be looked at in so many different ways as those questions of the tenure of land and security for tenant's capital." Very good. If Mr. Roach's brother farmers thought fit to stop a straightforward speaker in this way, of course there was nothing for it but to submit with a promise "never to do so any more." But, as it seems to us, Mr. Roach's brother farmers did nothing of the kind. Not one of those who protested against the topics touched upon are farmers. Mr. Daw is an attorney and an active electioneering agent; Mr. Sanders writes himself more properly a Reverend Prebendary; and Mr. Kennaway is a lauded proprietor and a county member. As chairman of the day, Mr. Kennaway had, no doubt, the right to interfere if he thought proper so to do; but it is surely something like "a liberty" for either a solicitor or a clergyman to attempt to dictate as to what the farmers shall talk about at a ploughing-match dinner. At best they are but guests upon sufferance; and it would be more becoming did they make themselves less prominent on such occasions.

Mr. Sanders, however, was sufficiently emphatic on "theirs being a meeting simply for the sake of agricultural discussions;" Mr. Daw "thought there was only one Political-Agricultural Society in England, and that was in the neighbouring parish of Woodbury, but he was afraid the political fever was very prevalent, and they had caught the infection;" while the Chairman considered "there were many subjects of a semi-political character which they might fairly go into," although he did not seem to rank land-tenure as one of these. Now, only let us picture a meeting arranged for agricultural discussion where it is "fatal" to talk about leases! Or, where such talk would change the meeting into a Political-Agricultural Society, of which description it appears there is only one other such in England. Why, what in the name of common sense can this possibly mean? If the mention of leases, the security of capital, and the independence of the farmer would go to make a Political-Agricultural Society, then we have not one but one hundred—we had almost said one thousand such Societies in England. There is not a Farmer's Club nor an Agricultural Association that holds a show or has "a convivial gathering" but where such subjects have been discussed again and again, or, as Mr. Daw puts it, with something like a contradiction, "the political fever is very prevalent." But if leases and Tenant-Right, and so forth, be "matters which it is impossible to go into at these convivial meetings," what are the unfortunate farmers, who are supposed to be here upon business, to talk about? Mr. Sanders, certainly, would infinitely prefer to know whether a furrow had been set straight, or a hedge neatly trimmed, and the chairman to leave everything else to the Chambers of Agriculture. But the Chambers of Agriculture occupy a very anomalous position, as Lord Aylesford has clearly shown. When the Warwickshire Chamber of Agriculture discussed the game evil his lordship withdrew his name, and when the Warwickshire Agricultural Society discussed the game question his lordship said this was more properly the business of the Chamber of Agriculture. From what occurred at Sowton we should be inclined to think they might turn over the farmers' capital and independence very much after the same fashion down in some parts of Devonshire. At the dinner of an Agricultural Society in Herefordshire the other day one of the speakers in advocating the uses of a Chamber of Agriculture, said: "it might not meet all the requirements

of the case, and he did not think it did. The landlord element was perhaps a little too strongly represented," as no doubt it is, not only in the Chambers, but in some other kindred institutions. What, however, does Mr. Daw imagine they chiefly talked about at this dinner of the Mortimer's Cross Agricultural Improvement Society? Why, Politics. It was clearly a Political-Agricultural Society, where they went into land-tenure and Tenant Right, maintaining, moreover, that "it was useless to stand up and talk of their grievances, unless they could give facts;" and they did give facts, and terrible strong facts too, without any learned man to call them to order, or any reverend man to read them a lecture, or any honourable man to hint that all this was out of place at a convivial meeting.

As Mr. Alfred Edwards says the landlord element is "perhaps a little too strongly represented" at the Chamber of Agriculture; while we are inclined to think that the clerical element and the political element may be a little "too strongly represented" at some Agricultural Societies and parish ploughing matches. At any rate and in any case, if the farmers choose to talk over matters that mainly concern them at their own meetings, it should rest with themselves and their appointed chairman to settle as to how far they are warranted in so doing. Any attempted interference or dictation from any outsider, who may be amongst them can, we repeat, be surely regarded as little short of an impertinence. Indeed, as we wrote it a few weeks since, people who attend agricultural dinners with the idea only of paying vapid empty compliments to each other had by far better stay away, whether they be noble lords or tenant-farmers. It is a nice question, indeed, whether men who have nothing more to say should not at once be called to order.

At the Sowton (Devon) Ploughing Match Dinner, Mr. J. H. Kennaway, M.P., in the chair,

Mr. ROACH, who responded for the judges, said he was glad to see the farmers around him looking so smiling, considering the adverse season through which they were passing, for he was quite sure that many of his friends had not made their rents out of their farms this year. Farmers were said to grumble very much. So they did, and with very good reason. But they did not despair, and they hoped to make up in time to come for the bad luck of the past. It had been said that it was the duty of a farmer to produce every blade of grass, every ear of corn, and every head of stock that he could. That was just his idea, and he believed that farmers as a rule endeavoured to carry it out. But they could not control the seasons. He was quite certain that the farmers of England had within the past two or three years sent millions of money out of the country in return for foreign produce. That was so much lost to the country, because whatever was raised at home was so much commonwealth; and if they had to send money out of the country for what was generally produced in it, that money was lost to all. As to the relations between landlord and tenant, there would always be bad farmers as well as good ones, and if a landlord had a bad tenant he would soon find it out, and would refuse to keep him when—as was particularly the case in Devonshire—there were so many good farmers in want of estates. A great obstacle to good farming was the growth of useless hedgerows and timber. Moreover, a great deal of the land was stocked with unprofitable stock—and that, he must say, by the landowners. They could have no idea what was consumed annually by the sort of stock to which he alluded. But let them not mistake him. As an Englishman, he was always proud to see a noble mansion standing in a well-timbered park, and plenty of deer in the park too; and he admired the gentleman whose liberality induced him to add to all that a good pack of hounds. And there was no more pleasing sight to him than that of his landlord trying a good piece of his turnips, with a gun and a brace of pointers, and finding a partridge or a pheasant every five or ten minutes. And if his landlord said, "Roach, we lunch at such a time and place," he would tell him "All right,"

and, depend upon it, he (Mr. Roach) would be all the better pleased, and would be sure to be there. That was the sort of feeling he liked to see existing between landlord and tenant, and where that was found the landlord might always be sure of plenty of sport. But there was another thing which tended to check the productiveness of the soil more than anything else he had named—he alluded to the insecurity which landlords gave to their tenants for the outlay of their capital. They knew perfectly well that land could not be farmed without money; and those who had money, and who had brains as well, would not lay it out without some good chance of seeing it back again. He was sorry to say that there was a growing disposition on the part of the landlords of this country in favour of tenancies at will; and under such circumstances he held that a man was not justified in making the outlay which he ought to in order to farm his estate properly. As a rule, there was not sufficient capital employed to make the best of the land. He was at a great loss to find a reason why landlords as a rule should object to giving a good tenant a lease. He was sorry to say that the only reason he could suggest was this—that they wished to have political control over their tenants—(VOICES: “No, no”). He could see no other reason. He hoped that it was not the reason; but he repeated that he could see no other—(cries of “No politics!”) He was not going into politics, but he knew that what he had spoken of was a great deterrent of the productive power of the country. He hoped it would soon be remedied. He could see by one remedy, and that was that in time they should have vote by ballot—(dissent at the head of the table)—which would in some measure do away with the fear under which many farmers lived.

Mr. J. DAW: No politics!

Mr. ROACH said he was no politician; but they had met there for their mutual good, and if anything could be said by them which would benefit each other, he maintained that it ought to be said (Hear, hear). He was sorry if he had said anything offensive to any individual present, but he had only said what he believed to be true. There was still another subject which he should like to mention, and—

Mr. DAW: The judges! the judges!

Mr. ROACH: Well, he would thank them sincerely for drinking the healths of the judges.

The Rev. Preb. SANDERS, in reference to Mr. Roach's remarks on the question of leases, wished to impress on them the great importance of keeping out of their discussions and deliberations all political allusions. He was quite sure, from his experience of these associations, that in introducing political topics they would be introducing a fertile source of discord which would be fatal to the success and harmony of their meetings. He would by no means say that other ploughing-match dinners might not properly be arenas for political discussion, but he hoped they laid down would adhere to the rule, which they had distinctly laid down, that theirs should be a meeting simply for the sake of agricultural discussions, in which nothing tending to political strife should be introduced.

Mr. ROACH said: Mr. Sanders had in the early part of the evening referred to the clergy and the position in which they stood with regard to their parishioners. He (Mr. Roach) had no doubt that the clergy liked to stand well with the laity. Now he was not going to talk politics; he hardly knew what he was in politics—he rather thought he was a free-thinker—(laughter)—and he wished there were more free-thinkers in politics, and not so many in religion. There was a great deal too much party feeling in this country. He believed that if Mr. Gladstone were to tell any of his followers to jump into the sea they would do it, and the same with Mr. Disraeli—(loud laughter). If people did not stick so much to their parties it would be a great deal better for the country. As he had said, he hardly knew what he was in politics. When Lord Palmerston was alive he thought pretty much with his lordship; but since Palmerston's death the party with which he was associated had run riot—(A VOICE—No politics). Well, they should not have any politics—he would call it religion—(loud laughter, and a VOICE—Worship of Gladstone). Lord Palmerston's party had, since his death, introduced measures which he would never have thought of. He alluded to the disestablishment of the Irish Church.

The CHAIRMAN, interposing, said he thought they ought hardly to go into that subject, upon which there were so many opinions.

Mr. ROACH said Mr. Sanders rather found fault with him (No, no), and he thought he ought to set himself right. The clergy were public servants as well as members of Parliament, and they must expect to be criticised. Mr. Sanders had said that the clergy stood well with the laity, but he (the speaker) thought they did not stand so well as he could wish. The matter of the Irish Church was one which concerned the farmers. He looked upon the disestablishment of the Church as a serious injury to the country, and he did think that in a great measure they had to thank the clergy of England for it. The clergy had tended to weaken the Church as much as any other class of men (expressions of dissent). He (Mr. Roach) meant to say the farmers were foolish, if they went to meetings like this, and heard things said relative to agricultural politics without replying to them (Hear, hear, from the farmers). He wished they in the country were better supported by the clergy than they were. He was as staunch a Churchman as any man in the country, and he believed that the Church of England and the Bible had done more to make England great than her navies had. He was sorry Mr. Sanders should take objection to what he had said. He did not intend to wound the feelings of anyone, but as an Englishman in a free country he could not help expressing his opinion. He wanted to allude to the Irish Church purely as a farmer. They would recollect that there were in England more farmers than farms, and some time ago when he wanted a farm, he thought of going to Ireland, which he believed was as much in want of capital as England. But he could not go to Ireland if he had no security for his money and his life. He wished he could have seen Ireland pacified, but it was not the case. The clergy, by making so many dissenters, had, with the Roman Catholics, succeeded in disestablishing the Irish Church, and in a few years they would disestablish the English Church (uproar).

Mr. DAW said unfortunately they were drifting into a discussion that was wisely prohibited by the rules of the Society. There was, he thought, only one political agricultural society in England, and that was in the neighbouring parish of Woodbury. He was afraid the political fever was very prevalent, and that they at Sowton had caught the infection. He had known Mr. Roach for many years, and no one could know him without appreciating him. He had also known Mr. Sanders for many years, and he could say the same of him. Mr. Roach, in his first speech, stepped a little out of the way, no doubt unintentionally—he ought to have been at Woodbury, and then he would have been all right. Mr. Sanders, he was sure, meant nothing more than to check what was dangerous, and what he (Mr. Daw) remembered was the means at one time of breaking up their association. The subject which Mr. Roach had broached was a fair one for discussion; but that was not the place for it. If he would start the subject at the Chamber of Agriculture, there were many points on which he would support him. He begged to suggest that Mr. Roach should bring forward the subject at the next meeting of the Chamber of Agriculture.

Mr. KENNAWAY would repeat what he had said before at a similar meeting, that their member ought to come there to listen, and not to talk, in order that he might go away better fitted to represent them.

Mr. ROACH: But you wouldn't hear me just now.

Mr. KENNAWAY: With regard to Mr. Roach, he felt as Chairman he was bound by the rules of the Society, and therefore he hoped Mr. Roach would not think he meant to offend him when he interposed. But he felt strongly what Mr. Daw said about the importance of leaving politics to Woodbury, because it was important to preserve the harmony of these meetings. Still, he was far from wishing that grievances should be bottled up. [Mr. ROACH: That's me.] However, there were many subjects of a semi-political character which they might fairly go into, while others which were clearly political were best omitted at these meetings. It was impossible at convivial gatherings to go into matters which required to be looked at in so many different ways, as those questions of the tenure of land and security for tenant's capital. As Mr. Daw had said, the right place for them was the Chamber of Agriculture, and he hoped that those whom he saw around him would attend and take part in the discussions of the Chamber more frequently than they were in the habit of doing. It was impossible to arrive at what was the true state of feeling between landlord and tenant without those discussions.

THE SCOTTISH CHAMBER OF AGRICULTURE.

A general meeting was held in Edinburgh, Mr. Wilson, Edington Mains, the retiring president, in the chair.

The following letter of apology was read :

“Brucklay Castle, Aberdeenshire, 12th Nov., 1870.

“Dear Sir,—I regret that it is not in my power to attend the meeting of the Chamber of Agriculture on the 15th inst., particularly being one of those members who have been sent to the House of Commons in order to further the cause of Game-law reform, and have been attempting that uphill task with very little success. I earnestly trust and expect that the result of the discussion will be to unite the farmers of Scotland in favour of some substantial instalment of reform. The prevailing feeling of Parliament, as brought out by the discussions and divisions of the last four years, seems to indicate a sense of the necessity of doing something coupled with an earnest effort to do nothing. But were Game-law reformers united in favour of some one measure, no Government, however strong, could long withstand the pressure. With these views, although responsible, along with the members for Linlithgow and Dumbarton, for a particular scheme, I have never seen any inconsistency in giving a helping hand also to the proposal of Mr. Loch. Personally, I have no objection to see both measures carried; but it is plain that to mix up the question of contract with that of the Game-laws is to invite needless opposition, and to render the hope of success of such a measure, or of any measure, exceedingly small. The proposed exclusion of hares and rabbits from the list of game has many advantages. It interferes in no way with existing bargains, nor introduces strife between the parties to them. Yet it secures an effectual protection to any tenant, under whatever terms of lease, as any undue increase of ground game under special clauses will be cleared off by the professional poacher (if the term can any longer be applied). As to the allegation that farmers will suffer so much from trespassers that they will demand a stringent Trespass Act, it has been well said that it is not the Game-laws which secure our lands from trespassers. They create trespass by creating the occasion and temptation, and were hares and rabbits exempted from their operation, we might as soon expect to hear farmers complain of trespassers in search of larks' and plovers' eggs as of the damage done by persons hunting ground game. The present law of trespass is sufficiently stringent to keep off common trespassers, which is all that is required. I look upon the proposed Government Bill—and it is generally regarded in Aberdeenshire by those chiefly interested—as practically a measure for facilitating law-suits between landlord and tenant, and conferring no right on the tenant which he does not already possess under the common law of the land.—Yours sincerely,

“WM. D. FORDYCE.”

The SECRETARY, Mr. D. Currer, read the report of the Counties' Committee in regard to the election of president and other office-bearers for the ensuing year.

Mr. GOODLET (Bolsham) then moved that Mr. Scot Skirving be *not* elected as president, as in the present circumstances it was advisable that the president should not be a party-man, but a man ready to treat all parties alike. His objection to Mr. Scot Skirving was that last year, after a vote that terminated favourably to the views he (Mr. Skirving) adopted, he stated that he had been ridden over a good while by the party opposed to him, but that that should be done no longer, as now that he had got hold of the reins he would ride over them. A man who would give expression to sentiments like these was not, in his (Mr. Goodlet's) opinion, fit to be the chairman of that Chamber.

Mr. ALEXANDER moved that the recommendations of the committee be homologated.

Mr. A. E. MACKNIGHT, advocate, begged to second Mr. Goodlet's motion. Mr. Scot Skirving was, he said, well-known to be extremely mixed up with a well-known political party in this country. Had Mr. Scot Skirving been there simply as an agriculturist, and put forward his views in discussion simply as an agriculturist, he (Mr. Macknight) would have been very happy to have seen him chairman of that Chamber. But as he was such a violent partisan—(Cries of “Oh, oh!”)

The CHAIRMAN: I must insist upon your withdrawal of that expression.

Mr. MACKNIGHT said: Well, as he was such an extreme partisan, he (Mr. Macknight) did not think that, considering the matters likely to come before the Chamber, the proposed appointment was a proper one.

The CHAIRMAN said that that was an exceedingly unpleasant discussion, and he deprecated its taking place. He thought that things had been said about the Counties' Committee which should not have been said. How was the business of that association to be carried on, unless the business was prepared for them by the parties elected for that purpose by themselves? Their Counties' Committee had made a suggestion to them that day. Their practice hitherto had been to act on that suggestion, and he simply ventured to make the suggestion that they would not on that occasion depart from that practice. They had no warrant for saying that the committee was doing the business. Then if they were to have in the chair some man whose politics were so diluted that he could have no precise views on anything, they would not get on very well.

Mr. HARPER (Snawden) was one of those who differed very strongly from Mr. Scot Skirving, and he thought it was extremely unfortunate that they should make the question a political question. He thought that under the circumstances the Chamber had done right in adopting Mr. Scot Skirving as its president for the ensuing year. If they should act upon a different principle than the one followed on that and all previous occasions, he had no hesitation in saying that they would get into hot water.

Mr. SHEPHERD (Gleghornie) thought that after the expression of opinion that had taken place, Mr. Goodlet would very probably allow his motion to be withdrawn.

Mr. GOODLET said he could now withdraw his motion only with the consent of his seconder, and however unwilling he might be take any step to mix up politics with the present discussion, he could not help thinking that the appointment of Mr. Scot Skirving on the present occasion was an act which that Chamber should have avoided.

Mr. ALEXANDER here pressed his motion.

Mr. BETHUNE (Blebo) strongly objected to the introduction of political and ecclesiastical questions into the Chamber. Then, as regarded Mr. Goodlet's speech, he (Mr. Bethune) would like to know if Mr. Goodlet wanted a lot of asses in the chair; they wanted clever, able men, who had brains among other things.

Mr. CLAY here moved the approval of the whole of the recommendations of the committee, as the proper course to be then followed.

Mr. M'LAGAN, M.P., seconded the motion. He did not think, however, that Mr. Goodlet had in his speech mentioned the words political and ecclesiastical. Mr. Goodlet had alluded simply to the appearance made by Mr. Scot Skirving at that time last year. But now, as Mr. Goodlet had expressed his opinion on the principle, he hoped he would not continue to press his motion upon the meeting.

Mr. GOODLET said that, after the opinion that had been expressed by the meeting, he should be quite willing—having got the consent of his seconder—to withdraw his motion.

The recommendations of the committee were then held as adopted.

Mr. LOCH, M.P., said he was not going to waste time in making general observations on the subject of the Game-laws, because he was quite sure that there was no one in that room who did not feel as strongly as he could do how full of mischief and injustice were the effects of the Game-laws. He was quite sure at the same time that there was not one present who did not intend to use his best endeavours, by means of proper discussion, to procure the removal of those evils. But, while that was so, there were many differences of opinion as to the manner in which the amelioration of the evils should take place, and it was more particularly with reference to that point that he now sought to consult the

Chamber. There could be no doubt that the question was now suffering a great prejudice in the public mind and in Parliament in consequence of those differences of opinion (I hear, hear). He thought, therefore, that if they could by any means show Parliament that the people were not so divergent as was imagined, the cause in hand would make much greater progress. He gave an example in his own case, and explained that he had withdrawn his bill at the end of last session, after the Lord Advocate had withdrawn his, and without making any remarks on either his own bill or the bill of the Lord Advocate—because, in the first place, it occurred to him that the House had been wearied out by the variety of desultory discussions on different plans; and because, secondly, he could not, in the state he was, declare that his bill had met with very general approval from the agricultural bodies of Scotland. For instance, his friend Mr. McLagan would at once deny that, although he (Mr. Loch) had received large assurances of it. That being so, he had thought it better to postpone the discussion till after he had put himself in communication with bodies like that of the Chamber, in order that they might arrive at some one manner of dealing with the question, so as to avoid that disadvantage. There had been, he went on to say, no less than six measures on the Game-laws before Parliament during the last session, and under those circumstances they could not be surprised that Parliament was a little at a loss to know what was the real mind of the people of Scotland on the subject, because the promoters of all the bills claimed to represent certain sections of the people. Before explaining the provisions of his own bill, which had been so little understood, he would shortly allude to one or two of the other measures before Parliament, in order to show why it was that he did not support the measures already before it. The first measure it was his duty to consider in the session of 1869 was the one introduced by his friend Mr. McLagan, the leading principle of which was to put an end to the protection now given by the Game-laws to those two animals—the hare and the rabbit—and that was, in the views of many, a good means of dealing with the question. But it appeared to him (Mr. Loch) that the measure was open to one or two serious objections. His leading objection was that it would not place the remedy of the evils in the hands of those who suffered by them, but in other hands with which they could have no sympathy—namely, into the hands of the poachers. But then, too, it was a measure which, in the extent of the remedy to be afforded, was not proportionate to the evil complained of. It would equally apply to estates on which game was not preserved as to estates on which there was the greatest over-stocking of game. It would also be open to this other objection, that it would not in fact amend the relations at all as existing between landlord and tenant. It would leave it open to the landlord to make any terms in regard to the hares and rabbits on his farm he should see fit; he might equally then as now bind the tenant down not only to abstain, himself and the servants, from destroying those animals, but to use his best endeavours to prohibit others. It therefore appeared to him (Mr. Loch) that the thing to do was to, if possible, place in the hands of the tenant-farmer full power to deal with the evil for himself, and to apply it in those cases in which in his view it was necessary to have a remedy. But he had yet another objection to Mr. McLagan's bill—it was the feeling, which the Chamber would judge for themselves, that had he been a tenant-farmer of Scotland, he should rather have disliked to have escaped that evil by any back-door such as that. He would rather that he himself should be put upon an equal footing with the landlord with regard to the killing of the hares and rabbits on his farm. Then, in regard to Mr. Taylor's bill for the total abolition of the laws, his first objection was that it was impossible of accomplishment, and that it would be better to seek for an alteration of the laws. If they were to do away with the Game-laws, every tenant of the country would be exposed to dangers in the way of trespassing from which it would be not in the power of his landlord to protect him. All who were acquainted with the subject, too, would know how impossible was the work of drawing up a general law of trespass. The Game-laws, on the contrary, were laws on trespass directed against persons having particular objects in view. Those, then, were the views by which he was actuated when he originally sat down to try and frame a Bill having those things in view; and he might add that, after having had ex-

perience now during the best part of his life with farmers in Scotland and in England, he did not feel himself entirely unfitted to deal with a question such as that, however difficult it might be. Therefore he had thought he should propose a scheme which might possibly meet the evils of which complaint had been made. He had confined his Bill to Scotland for several reasons, because it was more felt in Scotland than in England, and more easily, therefore, dealt with. It was more felt, because in the lease made with his landlord for 19 years, he was exposed for all that time to evils arising from various circumstances, over which he could have exercised no foresight at the time he entered into the lease, and the only remedy was to bring an action against his landlord. He (Mr. Loch) could not conceive a greater evil to the tenant than to be forced to such a remedy. He thought he might sum up in those few words the objection he had to the Lord Advocate's Bill. He did not think a worse measure could have been proposed; and so strongly had he felt that on his first hearing the Bill, that he had at once tabled a motion in the House of his intention to move its rejection. He felt strongly that it was a measure which ought not to seem to be dealt with for a single moment. He would not occupy the time of the Chamber by going into the clauses of the Bill, because he thought they might be pretty sure of this—that whatever intention the Government might have in regard to that question, they were not likely to make so great a mistake as again to propose so absurd a Bill. Mr. Loch then entered upon his own Bill—he confessed, with a little anxiety, though not because he had not perfect confidence as to the soundness of the principle upon which the Bill was founded; for he had laboured anxiously over it for the last two years, and he had during that time been receiving many assurances of the progress it had been making in the public mind. The leading principle of his own Bill was that it should be placed in the hands of the tenant-farmers themselves to deal with that great evil—that they should be given power and authority such as to enable them at all times, if any increase of game should take place injurious to their farms, to put down the numbers of the game of their own free will. Now, if he had stopped there, he should have been guilty of the same sort of dealing which was conspicuous in Lord Elio's Bill a year or two ago, and in the Lord Advocate's Bill of last session—namely, giving a power which might be withdrawn by a forced agreement between the landlord and tenant. It therefore became necessary to make the power given a power of which the tenant could not be divested or divest himself. He (Mr. Loch) had been accused of having been guilty of immorality in making such a proposal, and of flying in the face of the laws on which property in this country is regulated, in proposing that there should be any restriction placed on the power of regulation as between landlord and tenant. That accusation came rather in the first instance from those who desired to cast a slur upon what was proposed, and it would have surprised him if they had obtained any general support from those on whose opinions he generally desired to act. General opinions from those persons and bodies had been recently expressed to him as coming round to the principle he had just spoken of. He then went back to his bill of last year, on which, he said, he had effected certain alterations required to preserve his measure from misunderstanding and misrepresentation, but not changing it in the least. The third clause, which is the first important clause in the bill, was as follows: "From and after the passing of this Act, it shall be lawful for any tenant, by himself or any person employed by him and having his authority and permission, to kill and take hares and rabbits on the lands occupied by him, subject to the provisions hereinafter contained, and to have in his custody or possession hares and rabbits so killed or taken." Well, those provisions were to this effect: "Any tenant holding under a lease existing at the passing of this Act, in which the right to kill hares or rabbits is reserved to his lessor, may give notice in writing to his lessor that he intends, under the provisions of this Act, to kill and take hares and rabbits, or either of them, upon the lands occupied by him, and upon such notice being given, and upon payment by such tenant to his lessor, during the term or currency of such lease, of such annual stipulated abatement or allowance from the rent, if any, as may have been expressed in such lease in consideration of the reservation therein by the lessor of the right to kill hares or rabbits, or where no stipulated

abatement or allowance from the rent is provided by such lease, upon payment by such tenant to his lessor during the term or currency of such lease, of such compensation, if any, as may be agreed on or may be fixed by a valuator, to be named by the Sheriff on the application of the lessor or the tenant, it shall be lawful for such tenant to kill and take hares and rabbits as provided by this Act." Now there were, of course, two ways open to one in dealing with that question—either to postpone the operation of the powers conferred upon the tenant until the expiry of the term of his existing lease, or to make them operate at once upon compensation, or rather upon restitution by the tenant of any amount, in consideration of which he might have held his farm, on the ground that he was deprived of that power. It had appeared to him that there could be no doubt as to the way which should be taken. To have postponed the operation of the powers till the expiry of the lease would have conferred the power on farmers whose lease earliest expired, to the disadvantage of neighbours whose leases had yet years to run. And that there could be no objection to the second course was clear upon principle, and from the course the Legislature took every year in dealing with the rights of property, when public considerations were involved. Well, then, as regarded making the power an inalienable power, and of which the tenants could not divest themselves, that was to be found in the 4th clause, which was as follows: "It shall not be lawful for any lessor or tenant after the passing of this Act, by any lease or agreement between them, verbal or written, or otherwise, to divest or deprive such tenant of the power to kill and take hares and rabbits by this Act conferred on him, or to restrict him in the exercise of that power; and any lease or agreement entered into or made in contravention of this section shall be void and of no force or effect." That was the clause to which it was objected as interfering with the rights of property. That the law did interfere with those rights in many ways Mr. Loch went on to show by instancing the legislation of the law as to real property, the Truck Acts, the usury laws, and other laws. He might multiply examples if that were necessary. But he had another reason for proposing to make that power inalienable, and it was this, that many instances could be given of tenant-farmers who had complained bitterly of over-preservation on the part of their landlords as injurious to their farms, and who, when the power requested had been given them, became in their turn ardent preservers—so much so, indeed, that they in their turn became the subjects of complaint by their neighbours. Therefore it was that he had thought necessary that corresponding liability which his friend Mr. M'Lagan once told him was pure nonsense. However he was quite satisfied that, practically, there could be no more difficulty in enforcing such a clause than there would be in enforcing any other clause in regard to destruction effected by those creatures when too numerous. The sixth clause was to this effect, that in cases of compensation for damage caused by undue number of hares and rabbits, a summary petition must be made to the sheriff, who should decide. He could not see any grounds for alleging that that would introduce bad relations between landlord and tenant; while it was known that the present laws did produce them. The fact that both landlord and tenant would be put upon an equal footing would be more likely to produce manly relations between them, and it did not follow that the tenant would exercise the power given to him obnoxiously to his landlord. He did not know that he could make the matter much clearer in regard to his intentions in making that clause. He would only refer to a letter which appeared in the *North British Agriculturist* the previous week, reflecting on his 4th clause, and for the reason that if a tenant should agree to an arrangement with the landlord in spite of the clause, the tenant might, after spending money in improving his farm, and upon killing hares and rabbits on his farm, be turned out on the ground of his having no lease. The writer of the letter, Mr. Loch said, had entirely misapprehended that clause. It was not upon killing the hares and rabbits that the farmer would lose the lease, but the lease would never be a lease. Then he always supposed that a farmer in making a lease would always act with the advice of his legal adviser, who would certainly say to him that such a lease was no lease at all. He knew how imperfectly on such an occasion he could explain such a subject as that, but he had been actuated with one motive—the desire to bring to an end the state of things which now held in regard to the question,

and that the Chamber might be brought to give such a decision upon it as would not cause the question to retrograde instead of to advance.

The CHAIRMAN was sure that the Chamber, without giving any expression of opinion for or against Mr. Loch's measure, would join him in giving to that gentleman a hearty vote of thanks.

Mr. SHEPHERD asked Mr. Loch if he considered that a tenant who should, notwithstanding the bill, make a promise to his landlord not to kill the game, was bound to keep his promise.

Mr. LOCH should conceive that a tenant could make any terms he chose with his landlord, and if he made that promise he was bound in honour to adhere to it. But then they must remember the counter-liability which he was under to his neighbour for damage that might be done to his neighbour's farm by over-preserving, and the difficulty would right itself. Then they must look at the effects of a measure upon a broad view, and in a general and large view.

Mr. M'LAGAN expressed the gratification with which he had listened to Mr. Loch's explanation of the provisions of his bill; and he appealed to Mr. Loch whether he (Mr. M'Lagan) had not on several occasions assigned as a reason for not bringing forward his bill the fact that no proper opportunity had been afforded for having Mr. Loch's bill fully discussed. It was unfortunate that when there were no fewer than six bills before the House on the subject Mr. Loch had not got a single and separate night for its discussion. He had listened very attentively to Mr. Loch's explanation regarding his measure, but he was bound to confess that he had not changed his mind in regard to that bill. Though he agreed with Mr. Loch in many things that he had said, he was as much as ever convinced of the utter futility of such a bill as he proposed, and of its evasive character. He believed that Mr. Loch was perfectly sincere in the convictions under which he had introduced his bill; but, in discussing this question, he had nothing to do with his opinions or his motives—all that he had to do with was his bill. He agreed with much that Mr. Loch had said regarding his own bill, but he most thoroughly disagreed with what he had said with regard to his (Mr. M'Lagan's) own bill, which was the bill of the Chamber (applause, and "No, no"). What Mr. Loch had brought forward against this bill was, that it would encourage poaching. Now, that was not so. What he (Mr. M'Lagan) wished to do was not to abolish the Game-laws, but to take hares and rabbits out of the game list, so that all the pains and penalties would continue, and any man who went in pursuit of game with guns or nets would be as much subject to the operation of the Game-laws as formerly. After noticing the proceedings which had taken place in the Chamber in connection with the bill which he (Mr. M'Lagan) had introduced into the House of Commons, he proceeded to say that his bill was considered to be the bill of the Chamber till the opposition bill was introduced. When he stood on the floor, conceiving as he did that he was the mouthpiece of the Chamber, he felt proud of the distinction, because he felt that in coming before the Legislature of the land he was uttering the opinion of a body of practical gentlemen who had shown great wisdom and moderation in the framing of their resolutions on the subject, who came before the Legislature in a thoroughly independent manner, and without any selfish end in view, asking the alteration of laws that they felt were not only oppressive in their operation but demoralising in their tendency; and whether the Scottish Chamber of Agriculture should or should not prove true to its first love, he had given notice of his bill for next session, and would press it to a division. In proceeding to criticise the provisions of the bill of Mr. Loch, Mr. M'Lagan said, in reference to clause 3, giving tenants the power to kill hares and rabbits, that he would have preferred if it had gone the length of giving the tenant-farmers the power of killing not only hares and rabbits, but (as he had done on his own estate) the power of killing also the winged game. In reference to clause 4 of Mr. Loch's bill, by which a tenant was not divested of the right to kill hares and rabbits, he said that that constituted the leading principle of the bill. He pointed out that, notwithstanding the provision that "it should not be lawful for any lessor and tenant, after the passing of the Act, by any lease or agreement between them, verbal or written, or otherwise, to divest or deprive such tenant of the power to kill and take hares and rabbits, by this

Act conferred on him, or to restrict him in the exercise of that power, and any lease or agreement entered into or made in contravention of this section shall be void, and of no force and effect," there was no provision as to preventing the bringing in of a third party. It was evident that he might, in the first place, hand over his right to kill hares and rabbits to a third party, who might then go and sell it over to the landlord. He held that the right to kill hares and rabbits could not possibly be inalienable if the tenant was at liberty to make over that right to a third party, who might sell it back to the landlord. That provision bore an absurdity on the face of it. Mr. Loch had said that it was objected to his bill that it was exceptional because it interfered with private contracts; and he had adduced many instances, such as those connected with the Truck system, the Irish Land Bill, the Usury Bill, &c., in regard to which the Legislature interfered with private contracts when they affected the public rights of the community. But it was altogether different with the Game-laws. The complaint was against the evils which these laws created. In the case of the Truck Acts there was no law creating such evils when the Legislature stepped in. The cause of these evils was simply the difference of condition between the employers and employed; in the case of the Irish Land Bill, it was the difference between the condition of the Irish landlords and the Irish tenant-farmers; in the case of the Usury Acts, it was the difference of condition between the Jew who lent the money and the unfortunate individual who was under his screw. Now, let them take the case of the Game-laws. Mr. Loch himself, and all of them, admitted that there were evils created by these laws; but, instead of proposing the amendment or abolition of these laws, Mr. Loch asked Parliament to interfere and prevent contracts being made between landlords and tenants. Now, so long as they had a cause producing certain effects, if they did not abolish or amend that cause, it mattered not what contracts they made, the evil would continue. The Chamber said that these evils were found to be detrimental to the interests of the community; and consequently they went to the Legislature and asked the Legislature to amend these laws. If they interfered with private contracts under the proposed bill, he believed it would be the means of perpetuating the evils of the system. At the last meeting of the Chamber, it had been resolved that no measure would be satisfactory that did not take hares and rabbits out of the game list; and in the next place, they held that there should be a condition to render any contract between landlord and tenant as to the preservation of hares and rabbits under a lease illegal. That was consistent and logical; but if they abolished contracts without altering the Game-laws, they would do what was neither consistent nor logical. Speaking on the next clause of Mr. Loch's bill, Mr. M'Lagan said that under it the right was given equally to landlords and tenants to kill hares and rabbits. But, supposing that a tenant took a farm, if there happened to be any difficulty of misunderstanding arising, the tenant knew that he could not kill the hares and rabbits himself; but he might get all the rogues in the parish to come and do so. That would have the effect of increasing the danger of collision between the landlord and tenant, the evil of which had been so much felt. There would be far more ill-feeling and heart-burning between them under Mr. Loch's bill than there had been under the present system. He (Mr. M'Lagan) was prepared to prove that the operation of that bill would have an immoral effect. Most landlords at the present time were most tenacious of their rights, and especially of the right of killing game. Well, supposing that a tenant went to a landlord and said that he wished to take a farm, and supposing that there were fifteen offerers for that farm, the landlord might say that he was debarred by the provisions of the bill from reserving his right to kill hares and rabbits, but that he would not let his farm to anyone who would not pledge himself to maintain the game as at present. They knew the stringent clauses that, under the present competition for farms, were often signed by tenants anxious to obtain a lease; some of them, in his opinion, were degrading. In these circumstances a tenant, in order to obtain a lease, might come under a verbal obligation to let the game remain as it was; but if the game was found to be preserved to excess, the tenant would naturally feel annoyed at the ravages it would commit, and, rather than suffer farther, he might exercise the right which the Act conferred upon him, and which the landlord

could not prevent him exercising. That, he (Mr. M'Lagan) thought, would be dishonourable conduct on the part of the tenant, and hence the immoral tendency of Mr. Loch's bill. In regard to the 5th clause of the bill, he (Mr. M'Lagan) agreed generally with Mr. Loch. But as to the 6th, while he did not remember having characterised that clause as "nonsense," he believed it would be found to be perfectly impracticable. He did not see how, in the event of any question arising as to damages, it could be proved that hares and rabbits committing destruction on one farm belonged to the farm of an adjoining tenant. If a hare or rabbit committed depredations on a certain farm, it must be held to be the property of the tenant of that farm so long as it was there; and he was at liberty to take a gun and shoot it if he chose. In the event of a reference as to damages, he could imagine in the Sheriff Court a number of young, witty solicitors trying to find out to whom the hare or rabbit that committed the damage belonged. The question seemed to resolve itself into this—Given a hare or hares that have been proved to destroy a certain tenant's crops, which hares powers have been given under this bill to that tenant to kill—wanted to prove that that hare or these hares belong not to that tenant but to a neighbouring tenant, and that neighbouring tenant is bound to pay compensation for the damage done to his neighbour's crop. That seemed to be the question that would be raised, and he thought that the impracticability of carrying it into effect was perfectly evident. In short, he objected to Mr. Loch's bill because it tampered with good faith between landlord and tenant, with the security and with the solidity of contract. While he objected to the second reading of the Lord Advocate's bill on the Game-laws, he would have pleasure in introducing one clause in his lordship's bill, preventing the landlords from interdicting their tenants from shooting hares and rabbits on their farms—a clause which he thought was certainly a step in the right direction. He (Mr. M'Lagan) had no hesitation in expressing himself favourable to that provision; and he would be glad to introduce it into his own bill next session, which he hoped would be so improved as yet to be regarded as the bill of the Chamber.

Mr. GOODLET said he wished to put a question to Mr. Loch on a point which had been but slightly touched upon by Mr. M'Lagan. In the preamble of Mr. Loch's bill it is stated that the Game-laws required amendment with a view to give relief to the farmers from the excessive preservation of game. Now, he (Mr. Goodlet) could not see any provision to that effect in the bill. There was no doubt a clause giving the tenants the right to kill hares and rabbits upon payment of compensation to the landlords, whether these animals were in excess or not on their farms. But suppose a tenant did not wish to purchase this right, or had not the means of doing so, then there is nothing in the bill to afford relief to that tenant.

Mr. LOCH said his bill was intended to come into operation at once. It was provided that any tenant holding under a lease in which the right to kill hares and rabbits was reserved might become possessed of the right by payment of such annual stipulated allowance from the rent as might have been expressed in the lease in consideration of the reservation; or, where no stipulated abatement was mentioned in the lease, by payment of a compensation to be fixed by a valuator to be appointed by the sheriff.

Thanks were awarded to Mr. Loch and Mr. M'Lagan, and the discussion adjourned.

Mr. WILSON (Edington Mains) then briefly addressed the Chamber, and vacated the chair in favour of the newly-elected president, Mr. Scot Skirving, who on taking that position returned thanks for the honour conferred upon him.

The other office-bearers were as follow: Mr. R. Scot Skirving, President; Mr. Archibald Paterson, Senior Vice-President; Mr. J. C. Shepherd (Gleghornie), Junior Vice-President, Directors—Messrs. George Wilson (Harelaw); George Hope (Fentonbarns); C. Alexander (Whitefield); Adam Skirving (Croys); David Dunn (Baldinnies). Auditor and secretary re-elected.

The SECRETARY reported the returns he had received from the different counties constituting the Counties Committee for the ensuing year. He read the following report from Kincardineshire:

WEIGHTS AND MEASURES.—In regard to the metric system

of weights and measures, the Convener stated that the Kincardineshire Association of Schoolmasters had, at a general meeting, approved of it as a most desirable change—from chaos to uniformity; and also on account of its simplicity and easiness of acquirement. It is already taught in seven of our parish and denominational schools. The convener, Mr. Taylor (Cushnie), presented the association last year with Dowling's synoptic map of the metric system, which has been handed from school to school. It is published by Keith Johnston, and he suggested that the directors should procure a copy of it to hang in the hall of the Chamber. The Indian Government, under the governorship of Lord Lawrence, decided to introduce the metric system all over India; and if his lordship is appointed to the Education Board in London, his influence, no doubt, will hasten its adoption in this country by its educational institutions. It is already permissive, and all that is wanted is for Parliament to make its adoption compulsory. It is assuredly coming to this. Let each director go home and prepare the way for it, as we in Kincardineshire have been doing for the last two years.

EDUCATION.—What is most interesting to farmers here who have families, at the present time, is to obtain in the coming Education Bill of next session providing for establishing intermediate schools in rural districts, corresponding to academies or grammar schools in our larger towns. Wherever there is a sufficient population of say 3,000 existing, parochial and denominational schools should be consolidated with division of work. In this county, forty miles in length, there is not a single school above the rank of a parochial one; fortunately the teachers are a most efficient body of well educated, well trained men, but their time is too much taxed in teaching A B C up to Greek and Latin. What is also attracting much attention in this county is the establishing or technical classes for the benefit of young men who have left school. At a meeting of the Schoolmasters' Association at Laurencekirk, on Saturday last, with Mr. S. Cook, from Kensington, the teachers present expressed their approval of establishment of technical classes, and their own readiness to attend classes for teaching, so that by next year they may be certificated and qualified to teach classes themselves. The Chamber will, we hope, take the subjects of the establishment of intermediate schools in all populous rural districts, and the establishment of technical classes in every parish into consideration, and will memorialise Government that provision be made for all these three objects in the promised Education Bill for Scotland.

ROADS.—Our local road question has had much attention paid to it both by farmers and proprietors during last year.

GAME.—The game question has been under consideration of the Kincardineshire Farmers' Association, and there is herewith sent some copies of the resolutions come to at the last meeting on 10th May, 1870, viz.: That the Game-laws as they at present exist are iniquitous in principle, tyrannical in administration, and in all parts of the country lead to increase of local taxation, impoverishment of tenant farmers, demoralisation of the people, and debasement of the aristocracy, landowners, and game tenants. That the bill introduced into the House of Commons by the Lord Advocate and Mr. Bruce will not mitigate any of those evils, but will greatly add to the already tremendous power of the landlord, by increased inducement to litigation in the higher Courts; and the landlord being the richer party, such litigation, without any limit but the Court of last resort, would often be more ruinous to the tenant claiming compensation than the original loss; therefore, this meeting is of opinion that the bill is altogether unworthy of a Liberal Government, and ought to be opposed. That tenant-farmers ought to have the inalienable right of defending their crops from destruction by wild animals, whether known by the designation of game or by any other term. That the Game-laws, as has been often shown, are a fertile source of crime, pauperism, and increase of local taxation. By a Parliamentary return for 1869, there appear to have been 10,345 convictions under these laws in England and Wales alone, which must have been the cause of reducing at least 20,000 individuals to pauperism, to be supported at the public expense; and in a previous period of ten years there were 42 convictions of homicide and murder arising from breaches of these laws, representing 68 lives lost; therefore, this meeting is of opinion that the Game-laws ought to be

made less sanguinary, less oppressive, and more in accordance with the spirit of the age. That a Liberal Government, fully aware of the deplorable amount of pauperism, homicide, and murder caused by the Game-laws in England and Wales, and also of the enormous destruction and check to production of the food of the people, the impoverishment and ruin of tenant-farmers, from the ravages of game, ought not to have cast contempt on the just complaints of the tenant-farmers and people of Scotland by proposing to assimilate the Game-laws of this country to those of England. That Mr. Loch's bill would confer on tenant-farmers the inalienable right of defending their crops from destruction by hares and rabbits, provides for compensation for injury done to crops by vermin coming from neighbouring estates, for transfer of all Game-law cases from the Justices to Sheriff Courts, for abolition of cumulative penalties for the same offence; and in so far this meeting approves of the bill, and resolves to petition in its favour; but it does not give protection to the Highland farmer against the vast herds of deer and packs of grouse which in late seasons come down from the higher grounds and devour their crops, and in that and other respects might be amended. That were farmers enabled to protect their crops from injury by game, the land laws amended, the "false and evil law" of hypothec and the oppressive law of distraint abolished, so as to render it safe for farmers and those who deal with them to lend their capital more liberally to landowners in the cultivation of their estates, there is good reason to believe that in a few years, instead of the 11 million quarters of grain now grown in the United Kingdom, the 22 millions required annually for consumption could easily be produced at home. That seeing almost all landowners are preparing to set legislation at defiance by the insertion of stringent clauses, new leases for reservation, including rabbits, notwithstanding any change in the law which may take place, the total abolition of the Game-laws, as proposed by Mr. Taylor, Mr. Jacob Bright, and Mr. McCombie's Bill, would fail to give relief from the evils complained of unless a provision be introduced rendering it illegal for parties to enter into covenants for the reservation of ground game. That the bill introduced into Parliament by Mr. Harcastle and Sir Wilfrid Lawson is both tyrannical and jesuitical. By making foxes game the Highland farmer defending his flock would be branded as a felon; it declares that no one shall be criminally prosecuted for killing game, and in a subsequent clause makes game to be private property, and all who intermeddle with it thieves and felons. Any child within the kingdom who may put its hand into a bird's nest to break or take an egg, or school boy who may catch a wild rabbit or kill a tame one of his own, would be liable to six months' imprisonment with hard labour, or to a fine of £20. Therefore this meeting considers the Bill so absurd as to be unworthy of consideration.

The Forfarshire Committee have sent up the following resolution: That this meeting, viewing with regret the unsuccessful attempts that have been made by individual members of Parliament to remedy by legislation the abuses arising out of the Game-laws, and having especially in view the utterly inadequate character of the proposed Government measure, introduced by the Lord Advocate, resolve to move the Scottish Chamber of Agriculture to petition Parliament for the total abolition of these laws.

The report from Ayrshire brought up the necessity of pressing Government to a satisfactory settlement of the hypothec and game questions: "but as there is little likelihood of any proper solution of the game question so long as farmers are themselves at variance in regard to what would be a right measure, the Chamber might take steps for convening a meeting of one or two delegates from each county in Scotland, to endeavour to come to a common understanding on this vexed question.

COMPENSATION FOR PERMANENT IMPROVEMENTS.—The meeting were further of opinion that the Chamber should bring forward and discuss the propriety of having introduced into Scotland the system and compensation for permanent improvements and unexhausted manures, &c., so as to prevent land being deteriorated towards the close of a lease, and thus not only prove beneficial to landlords and tenants, but also to the whole community.

STEAM CULTIVATION.

At a meeting of the Wisbech Chamber of Agriculture, Mr. J. Brown in the chair,

Mr. ISAAC ROBINSON said: I submit for your discussion and better judgment a few facts and considerations which I have been able to gather from 12 years' observation of its progress, the perusal of much that has been written on the subject, and the practical experience taught me by my daily occupations. Steam cultivation has of late years occupied much of English thought, capital, mechanical skill, and ingenuity. There is no subject connected with agriculture which has a greater interest in the present day, because in the judicious employment of steam in breaking up the soil, we look for that which will increase the profits of farming, while it decreases its expenditure. For the progress that steam has made in other fields of labour, look at locomotion. It is less than fifty years since George Stephenson opened the Stockton and Darlington Railway, the first line used for passenger traffic, and already the whole country is covered with a net work of iron rails, and 10,000 locomotives convey goods and passengers over thousands of miles of British railway. Look at our workshops. Watt's condensing engine of the last century has had a numerous progeny. It is calculated that from 180 to 200,000 steam engines are employed at present, as the motive power of our mills, mines, and factories. Look at our ports and rivers. We have men among us who were alive when the shrew Yankee sneered in 1807 at "Fulton's Folly," as the first steam-boat was called. Now we have steam vessels innumerable, from the tiny tugs and penny boats of our rivers, to the noble Captain (whose loss we are now deploring), or the gigantic Great Eastern; and our gallant merchant ships visit every port, and traverse every ocean of the globe. We can also look at our farms. In 1841 the first portable engine was exhibited at Liverpool as a great curiosity. We have now about 14,000 thrashing engines in daily use amongst us. Such vast advantages having been gained by steam, as a motive power in other branches of industry, it is no wonder that attempts were made from time to time by energetic and persevering men to adopt the new power to the cultivation of their land. I will mention a few of the early pioneers. In 1832, Mr. Heathcoat, of Tiverton, patented a set of steam cultivating machinery, which, I believe, began to work in 1834. This consisted of an engine windlass, rope and anchor. The engine moved itself along one headland, and the anchor pulley along the opposite one, hauling the plough backwards and forwards between them. This did not prove a success, the cause being, I believe, the want of a better medium for transmitting power; hemp rope being too soon worn out, and chain being too heavy. In 1830, a Mr. McCrae patented a system similar to Mr. Heathcoat's, but being intended for the low level lands of British Guiana, where many fields are bounded by parallel canals, the engine and pulleys were placed in punts at opposite ends of the field, which were moved on as the work progressed. With these he worked a balance plough, three ploughs pointing each way, supported on a high pair of wheels, as in our present system. In 1846 Mr. Osborn, of Demeura, ploughed with two engines; one at each end of the field. In 1849 Mr. Hannam, used iron wire rope for steam culture. In 1851 Mr. Wren Hoskyns, in his amusing *Chronicles of a Clay Farm*, brought forward this theory of making a seed bed in one operation, and thus dispensing with the successive processes of ploughing, harrowing and rolling, &c. He shows that as manual labour is principally vertical, as in digging; horse labour is horizontal, as in drawing a plough; so steam is rotatory in its action—as the fly wheel of an engine. Taking, then, his idea from the claws of a mole, he proposed that a traction engine should drag behind it a set of discs armed with revolving claws, which should rasp up the soil and leave the land behind it in the comminuted state of a mole-hill—a perfect seed bed ready made. The fruit of this book was a perfect crop of patents, and many ingenious machines were made to carry out the theory—such as Romaine's cultivator—but the inventors did not take two facts sufficiently into consideration. First, that you cannot hurry Dame Nature. To make a good seed-

bed soil requires, not only comminution into small particles, but also the beneficial effects of sun, air, rain, and frost—in two words—freedom from weeds, and atmospheric influences. Second: To move a heavy traction engine over rough ground takes up so much of its power that it has little to spare in dragging an effective cultivating implement behind it. I submit this last fact to the consideration of those who are inclined to believe that the traction engine with india-rubber tires can drag a plough more economically than it can be hauled with wire rope. But to return to our inventors, I must pass over the experiments of Sir John Lallie, Lord Willoughby D'Eresby, the Marquis of Tweeddale, and others, who by their exertions have paved the way of steam cultivation, and done much that has proved useful to subsequent inventors. As to later inventions and improvements their name is legion. Time would fail to give you even a slight sketch of the labours of Mr. J. A. Williams, Mr. Collinson Hall, Mr. Fiske, Mr. Boydell, Mr. Falkett, and others—not undervaluing their good service in the cause, but wishing rather to bring before you the names of the founders of the two systems of cultivation now in practical use among us—those of Fowler and Howard. The late John Fowler was one of those remarkable men possessing all the qualities of a great inventor: skill, ingenuity, indomitable energy and perseverance, a resolution never daunted by obstacles or failure, nor satisfied with any success short of completeness, and the rare ability of being able to learn by other people's failures, and profit by other people's experience, and of being able to call to his assistance a number of clever men who assisted him in his toils. I think I have heard that he spent three fortunes in perfecting his great invention, and he died, in the prime of life, leaving his representatives to reap the fruits of his active and persevering exertions in a large and ever increasing business. In 1854, Mr. Fowler exhibited at Liucoln a draining plough worked by steam. In 1856 he showed at Chelmsford his well-known balance plough, worked by a stationary engine on the round-about system. Next year at Salisbury, Mr. Fowler began the direct system: he mounted a portable engine on a windlass-frame, which moved along the headland by an anchor fastened a-head. An improved anchorage pulley moved along the opposite headland as the work proceeded. In the same year the Highland Society awarded him the £200 prize, as having found an economical substitute for horse power. In 1858 the Judges of the Royal Agricultural Society at Chester, awarded the £500 prize to Mr. Fowler, saying in their report: "It is beyond question that Mr. Fowler's machine is able to turn over the soil in an efficient manner, at a saving, as compared with horse labour, of, on light land, 20 to 25 per cent.; on heavy land, 25 to 30 per cent, and in trenching (deep cultivation), 80 to 85 per cent.; while the soil is left in a far more desirable condition, and better adapted for all the purposes of husbandry." It was on this occasion that steel-wire rope was first used, and from this date the economical commencement of steam cultivation. Since 1858, Fowler's Tackle has received upwards of £3,000 worth of prizes at the different shows where it has competed; each year showing an improvement in some detail. 1,200 hands are now employed at the Leeds factory, in a trade which, I believe, is now only in its infancy. After John Fowler, I would mention to you the name of Mr. William Smith, one of the fathers of modern steam cultivation. He is a farmer at Woolston, Bucks, and his occupation is 200 acres of heavy land, or less. Having become convinced of the superiority of cultivating over ploughing, by reasons I propose to mention presently, he invented his cultivator (which was made under the superintendance of Mr. Fowler), and in December 1855 he began steam cultivating, with a seven-horse portable engine, and smashed up oat, pea, and wheat stubbles with satisfactory results. Mr. Smith's system has not been greatly altered since its introduction, and is in common use on hundreds of farms. The engine and windlass are fixed in one corner of the field, round which field the rope runs, carried on rope porters, and the cultivator is hauled between the shifting pulleys at each headland. At

the Chelmsford show in 1856, Mr. Smith competed for the prize, but although the work was fairly done, the judges did not consider it more economical than horse labour. Mr. Smith did not exhibit at Salisbury, but made his appearance again at Chester in 1858, by his manufacturers, Messrs. Howard, of Bedford, who have since conducted the manufacture on their own account in the spirited and energetic manner that distinguishes that eminent firm. Messrs. Howard cultivated the land assigned to them in good style, and the judges awarded to them the large gold medal of the Society. The same day the award was published, Mr. Smith's neighbours and friends presented him with a tea service worth one hundred guineas, as a testimony of their sense of the mechanical skill, talent, and perseverance evinced by him in bringing to a practical result the application of steam power to the cultivation of the soil. Mr. Smith since this time has shown no inclination to hide his light under a bushel; he has published pamphlets and letters, and delivered speeches innumerable; but if he has viewed his own inventions and practice with somewhat too favourable an eye, and those of other inventors with some amount of prejudice and distrust, we must remember that he has used steam cultivation for nearly fifteen years, that all this time his farm has been open to the inspection of all the world, and that he has been able to give the plainest practical evidence of the profitableness of steam tillage, and thus fairly earned the gratitude of his brother farmers, and of the community at large. Since 1858, Messrs. Howard have gained many prizes for their steam cultivating machinery, and have made many hundred sets of tackle, principally on the roundabout system advocated by Mr. Smith. I am glad to notice, however, that they now adopt also the direct system of Fowler, cultivating with a traction engine on each headland, certainly the most economical method of applying power, where it can be adopted. It is noticeable, also, that since 1858 Messrs. Fowler and Co. have manufactured many more cultivators than the ploughs with which they won the Chester prize. After this sketch of the introduction of steam cultivation, let me call your attention to some of the practical questions of my subject. First, the advantages of cultivating over ploughing. At certain times of the year every farmer is glad to employ a cultivator, grubber, or scarifier, and acknowledges the benefit of doing so; but the obstacle to their more extended use is to be found in the fact that every effective implement of the kind is more or less of a horse-killer. Mr. Smith was, I believe, the first to demonstrate that the cultivator, when drawn by steam-power, is not only an auxiliary but a vastly superior substitute for the plough. I will read you an extract from his letter to Mr. Greaves, 1856. "The most approved of our common ploughs simply and absolutely turn over the soil, placing the former surface from four to six inches below, and bringing up the smooth surface of the under soil to the top. By this process all the seeds, weeds, and roots are deposited below the surface; whence the weeds which are propagated from roots or layers—such as couch-grass, water-grass, crow-foot, coltsfoot, and others, being divided by the plough are indefinitely multiplied; and do in fact, after four or five years, become increased to so great an extent as to render it absolutely necessary for the farmer to leave his land practically barren for the purpose of removing these obnoxious weeds; to do which the plough entirely fails him, and he is driven to the scuffler, cultivator, or other implement which he has invented for this purpose. Roots also of the thistle kind spread horizontally just beneath the pan which is trodden down by horses, and unless recourse be had to subsoiling, can scarcely be eradicated at all." Mr. Smith then goes on to contrast ploughing with spade husbandry 10 to 12 inches deep, and questions whether it would be generally advantageous to cultivate more than 6 or 8 inches deep, if the subsoil were to be laid upon the top, as is commonly the case in ploughing. Following out these thoughts, and endeavouring to find an economical substitute for the spade, Mr. Smith not only invented an efficient cultivator but he made it take the place of the plough for all operations, except ploughing in clover layers. Ever since '56 he has stuck to his text, with these results: his farm is as free from weeds as a garden, his crops have increased, and his land is cultivated at much less expense than before. Wherever steam culture is used, ploughing is used less, and cultivating more than before; for we find by experience that by cultivating you can destroy weeds

better, work your land deeper, and leave it in a more productive state. There is some land, however, where inversion of the soil is desirable, and the plough is the best implement. What is called "digging" also is very popular in some places. It is done by substituting digging breasts for the ordinary mouldboards. The land is worked ten or eleven inches deep, and is partially inverted, as when done by the spade. Let us now consider some of the advantages of steam cultivation. 1st, It deepens the soil. There are thousands of acres of good land in this and nearly every other county of England that have never been ploughed more than four or five inches deep. Year after year the plough slade has ridden over the subsoil and the hoofs of the horses have trampled it, until it has become a solid pan, effectually preventing the roots from penetrating or even the water from passing through it—in fact the subsoil has become "puddled clay," like the bottom of an artificially-made pond. Now modern farming condemns this; and many good farmers make a practice of subsoiling their land, two furrows deep, once in every rotation, in spite of the expense; but steam does this more effectually and much cheaper. I could point out to you land in this neighbourhood which had grown nothing for years, until it was steam cultivated, and it then, and since, has produced most luxuriant crops of wheat and oats. Mind, we do not want the raw clay brought to the top, and the good soil and manure buried five inches below it—as a gentleman near St. Ives told me he had served some land six years ago, the effect of which was five years' bad crops—but we want to keep the good soil at the top, freshened with a slight mixture of subsoil, and we want to smash up the solid pan, letting the surface water down by the drain, and exposing the heavy subsoil to the combined influences of sun, air, rain, and frost, so as eventually to make it good soil, fertile and productive. What becomes of those large lumps of clay left on the surface where draining has been going on? Atmospheric influences pulverize them, they mix with the neighbouring soil, and so far from injuring they actually improve it—so is it with the portions of the subsoil brought up by the cultivator. To get the full benefit of steam cultivation, it is, however, necessary that clay land should be broken up when dry, or it soon consolidates again, nearly as hard as before. The beetroot growers of France and Germany have become converts to deep cultivation; for chemists have shown them that more sugar and spirit can be obtained from a ton of roots grown on deep soils than from the same weight grown elsewhere, for it is that part of the beet underground that is richest in sugar. Consequently they are now largely buying steam tackle (or were before this unhappy war broke out) and working their land 18 to 24 inches deep. Mr. Campbell, of Bascot Park, who grows sugar-beet on a very extensive scale, loosens his land 24 to 27 inches deep, and finds a great advantage in doing so. I confidently look forward to the time when deep cultivation will be the rule, and not the exception in this country. You remember the old fable—a man when dying, told his sons that he had hidden a good deal of money in one of his fields, but he could not remember which, but "dig deep" said he and you will find it. After his death they began to search—field after field was dug to a great depth, but no treasure could be found. But when the harvest came, the land, broken up to so unusual a depth, produced abundant crops of grain, and then the father's meaning was understood. The moral is, if you want to find the treasures hid in the soil you must try deep cultivation. The second advantage I claim for steam cultivation is expedition. You can break up your more quickly than by horses, at a time of the year when time is money. I have often seen a good crop on a field which could never have been cleaned and sown that season had it not been for steam power. But steam not only thus helps the backward farmer, but it prevents a man thus ever getting behind. Look at the advantages of steam cultivation, are they, even now, estimated as they ought to be? I say, fearlessly, they are not, we should not see such a quantity of stubble land or unbroken in October. It is directly after harvest, when the sun is hottest, when the land is driest, when the weeds are most easily destroyed, when you can give a half-fallow to your land, when one day's work is worth a week's labour in the spring, it is then that the land wants breaking up. I believe that a farmer who buys extra horses for this work does wisely. But, by the steam cultivator, you can smash up 10 to 30 acres a day. The steam-horse

wants no rest, you can work him from sun rise to sun set, you can even work him by night if you have hands enough to manage him, as Mr. Cambell has done by the use of the magnesium light. People speak of the great expense of steam cultivation, the question is can we properly estimate the value of work done at such a time. A reaping machine costs a great deal of money, but if you can cut 12 acres a day with it, when your wheat is all ripe together; how trifling in comparison is the outlay! On many farm whole fallows have been done away with by the use of autumnal steam cultivation, and the land nevertheless kept quite free from weeds. The third advantage of steam cultivation is that it improves drainage. On ill-drained land, especially where the subsoil is a horse-trampled pan, the rainfall runs off the surface by grips and water-furrows, into the ditches, and thus its valuable chemical constituents are lost to the soil: nor is this all, the water which is retained and cannot get away, stagnates and keeps the land wet, cold, and sterile, while on well-drained land, when the pan has been broken up and horses kept off it, water-furrows are unnecessary, the rain filters through the thirsty soil to the drains, leaving most precious manure behind it. By doing away with grips and water-furrows you not only utilize the land thus wasted, but the reaping machine and every other implement is worked with greater ease and economy. I could also give you examples of farms where by steam tillage they have been able to grow turnips and feed them off the land, which was before impossible. The fourth advantage of steam cultivation is that on heavy land you save those 350,000 hoof-marks, the toll us horses leave in every acre of land ploughed. When your clay land is dry, it is too hard to plough, when wet the weight of the plough and the trampling of the horses poach the subsoil into the pan we have spoken of. But the steam-hauled implement leaves no mark behind it, and in unfavourable seasons, when you cannot get horses on the land at all, you can still use steam. The fifth advantage in using steam is that you are able to work a farm with less horses, and spare the horses you keep for the hardest work. Horse labour in the great expense of the farm. Look at the first cost of a horse, take the annual depreciation of his value, cost of his keep, blacksmiths', saddlers', farriers', and implement makers' bills, add cost of ploughmen and horse-keepers' wages, and you will find the expense to be from £40 to £50 a-year. Mr. J. Chalmers Morton, a well-known agricultural authority, in a paper read before the Society of Arts, gives the statistics of the horses kept on twenty-one different farms, and the average cost of each of the 282 horses was £46. On a large farm there are always horses kept, all the year round, for the sake of their work at certain seasons of the year. Substitute steam labour at such times, and you save, not only the difference of their keep for the few weeks, but for the whole year. Supposing that by the partial use of steam, you can save four horses' keep—at Mr. Morton's estimate that would amount to £184. Some people have saved much more than that. If you look at the R. A. S. E.'s report on steam cultivation 1867, when its commissioners, visited 140 farms, under steam-tillage—you will see that nearly all these farmers have largely reduced their horse labour, some keeping ten and some even twenty-five horses less than before. The sixth advantage of steam cultivation is that, by its use, the land requires less working, and fewer operations, such as ploughing, harrowing, rolling, clod-crushing, &c. Even when used occasionally, steam-cultivated land is easier to work for years afterwards; but, if the full benefit of steam be obtained—the land broken up at the proper time, and not a horse-hoof allowed to trample and poach the land afterwards—if steam be used continually, and not occasionally, for the light operations of the farm every year, as well as for the deep-cultivation every four years, the saving would be enormous. Mr. Smith asserts that the total cost of preparing his seed bed for wheat is 7s. 6d. an acre, including every expense; but we must remember that this is after years of continuous steam-cultivation. The seventh advantage of steam-cultivation is that it improves the position of the agricultural labourer; it enables a man to earn better wages for himself with less toil, and to do a better day's work for his master; it quickens the pace, and makes a man more handy, smart, active, and self-reliant. I do not think that it will displace any manual labour, but it will rather turn the labour to better account. The eighth advantage of steam-cultivation is, that you can get better crops at less expense, and that the fertility of the land is increased by

it. By deep cultivation and good drainage the temperature of the land is raised, the land dries quicker in a wet season, and in a dry season like this year's summer it remains moist and does not parch under the blazing heat of the sun. I could give you facts from my own observation as to the increase of crops from its use, but prefer to refer you to the employers of steam-labour round us, and also to the report of the R. A. S., mentioned above, where you will find an increase from four to eight bushels of wheat an acre obtained in many places. How is it that a labourer can afford to give double the agricultural price for his allotment? how is it that a market gardener can raise such large crops from land no better than that of his neighbours? Liberal manure does something no doubt, but the great secret is in spade-cultivation, by which the land is kept free from weeds and open to the rich fertilizers contained in every breeze and in every shower of rain. That it is not the manure, look at the Lois-Weedon system of growing wheat. You know that by a strip of fallow between every three rows of wheat you may grow a good crop of wheat for twenty years in succession if you will, without a spadeful of manure (as the Rev. Samuel Smith has done), and then have the land in as good a condition as ever. What is the secret? only that the land has been kept open to receive nature's bounty. I have not gone into the question of the peculiar advantages of steam-cultivation on light land, because in this neighbourhood our land is principally heavy or else in small fields; but I will say briefly that where the enclosures are of good size, as in parts of Lincolnshire and Norfolk, steam has won triumphs as signal as any of those gained on heavy soil, and is of equal value to the farmer. To recapitulate in brief a few of the advantages of steam-cultivation: It deepens the soil, and does it more cheaply than horse-labour, and much more efficiently; it enables the land to be worked at the best time of the year more expeditiously, and thus destroys weeds; it improves the drainage, and thus makes the land drier, warmer, and more open to receive the blessings of the rain; it saves expensive horse-labour; it prepares a seed bed in flower operations; it improves the position of the labourer; and increases fertility. My subject is not exhausted, gentlemen, but I fear that I have already trespassed too long on your patience. Had I time, I should have been glad to have given you a sketch of the various kinds of the steam-cultivating machinery now in use, and the latest improvements in practice; to have discussed the best kind of tackle suitable for farms of different kinds, and the expense of purchasing and working them; the cost of hiring them in different counties, and the customs belonging to them; when it pays best to buy and when to hire; the causes of success, and the causes of failure, with illustrations from modern practice; but time fails. I will therefore only notice some of the objections urged against steam-cultivation, and some of the obstacles to its progress, and then briefly consider how the objections may be met and the obstacles removed. Objections against buying tackle: Want of capital, want of mechanical skill, the example of those who have tried it and not succeeded, the difficulty of getting men to manage the machinery, the risk of breakages, and the cost of repairs; against buying tackle in partnership there is the possibility of all the partners wanting it at the same time, and the additional difficulty of managing men who have to serve several masters. Objections against hiring: Farmers cannot sell part of their horses, because they cannot be sure of getting tackle when they want it; and, having horses enough to do their farm work, hiring steam is an extra expense; and, then, you know, contractors charge such high prices. General Obstacles: No leases, want of Tenant Right, fear of disturbance or increased rent, bad leases, compelling a certain rotation of crops, or forbidding the use of the scythe or reaping machine, timber in fields and hedges, bad roads, small fields, crooked hedges and ditches, want of draining, bad water, want of water. My answer to these objections is this: That any energetic young farmer, who will give his mind to it, may soon acquire enough knowledge to drive an engine and to see that his men keep the machinery in order. Such a one will have little difficulty with either men or machinery; and for him £700 to £800 laid out in steam tackle will be an investment that will pay him tenfold, as it has done hundreds of practical men. As to hiring, if you make a bargain beforehand with a contractor, you are certain of getting tackle when you want it, and can thus get rid of the extra horses. As to the high prices charged, the great point to be considered is

whether the value of the work done is worth the money, all things considered. Competition brings all prices to a fair level. If the trade be profitable, contractors will be multiplied; if unremunerative, they will soon be starved out. But it is evidently to the advantage of the steam-employing community that the men who spent their time and capital in order to bring steam-cultivation within the reach of the smallest occupier, should be able to live by their business. Let farmers only prepare their farms properly for steam-cultivation, and offer a good breadth of land; and they will be surprised how cheaply and eagerly contractors will work for them. How then, is a farm to be prepared for steam, to get its full benefits? For this landlord and tenant must unite and work together. In this district we suffer principally from two great hindrances—brackish water, which destroys an engine's fire-box in two seasons, and small and irregularly-shaped fields. In time, however, pits will be dug, and tanks made to retain that valuable rain-water which we now waste so carelessly. Mr. Torr of Aylesbury and others, for example, have filled up open ditches, laid pipes instead, and conducted these mains into corner-tanks, where two or three fields meet. Fields of thirty to a hundred acres will be the rule, not the exception; and their boundaries will be straightened. New farm-roads, straight and good, will be made, on which engines can stand when at work. Trees and other obstructions will be removed. A knowledge of steam-cultivating machinery will be deemed as essential a part of a young farmer's education as the rearing of stock or the rotation of crops; and the next generation of farmers' sons will compete for silver cups at the local shows for steam-cultivating, instead of ploughing.

Mr. WALKER wanted to know why a field should not be a garden. They could not dig it all, and they could not garden it all, but they could do a great deal towards it by steam-cultivation. The land in the Smeeth and Marshland was just the ground for steam-cultivation. He had used a steam-engine on his land for thirteen years, and he would be very sorry to leave it off. The great question is, what sort of steam-cultivation farmers should use, the single system or the double system? He maintained that every farmer ought to have a steam apparatus upon his premises. As Mr. Robinson had fully observed, however, it required a mechanical mind to work a steam-engine and to work the tackle. Men as a rule are not acquainted with the working of such machines, and he had found great difficulty in getting men who would keep to the work. The boys he thought became the best men for that sort of occupation. He had boys in his employ whom he taught all they required of farming operations, and when they had gained the necessary knowledge he gave them 3s. a day, and some of them earned a guinea a week. There is one thing they had to contend against in steam-cultivation, and that is prejudice, but that would die away; everything that is right would succeed in the end. His opinion was that every large farmer ought to have an engine and tackle of his own.

Mr. ROBERT DAWBARN said at a meeting of the Society of Arts in London he remembered it formed a matter for discussion, what effect the introduction of steam-cultivation had upon agricultural labour. They had returns sent from about forty English and Welsh counties, and some from Scotch counties. The effect of it was found to be, not as had been expected, but that steam-cultivation was very much to the advantage of the agricultural labourers. One of the most unfortunate counties in England for agricultural labourers is Wiltshire, where the labourers get only 7s. a week. The result of the introduction of steam-cultivation into that part of the kingdom was that the labourers' wages were increased 2s. per week. The introduction of steam-cultivation into other parts of the kingdom had been followed with a like beneficial result. This he thought would remove from every kindly heart the feeling that an impediment was caused by the introduction of machinery owing to the disarrangement of labour it caused.

Mr. CATLING said there are one or two points in Mr. Robinson's paper which struck him as being rather faltering. He had stated that by the ordinary system of horse-ploughing land was rendered barren every fourth or fifth year, and that by steam-cultivation the fallow was rendered unnecessary. He then went on to say that Mr. Smith had grown twenty crops of wheat upon the same land in succession. Mr. Walker then

called attention to a well-cultivated garden, and asked the question, "Why is not every field a garden?" Now, it did appear to him that that is a very important question, but it is very much interfered with by the clauses which are usually in agreements, and he considered the application of capital to land is very much interfered with by the customs which prevail everywhere. The discussion on this subject is a very important one, and he thought probably they might carry it to another meeting, and then consider the customs of land tenure in this immediate neighbourhood, with the view, if necessary, of altering them. He would conclude his remarks by proposing the following resolution: "That the application of science and capital is greatly restricted by covenants which limit the use of land, an advance of the cost of labour, and lowering of the range of corn prices, and the power to induce agents to consider greater freedom of management."

Mr. RUSTON presumed that a man would not buy a large engine, and work on the direct principle if he had only a small farm. The next question for consideration is whether the round-about system is better to use, and in what particular instance the one is superior to the other. He could not help thinking that the round-about system is the best where a man purchased his own tackle and did not hire, because then he could use his engine when the weather was favourable; whereas if he hired it he would have to put up with inconvenient weather, during which the engine would remain idle. The great object they had in the application of steam is to benefit the land, and there is no doubt that steam-cultivation is double and treble the value of ploughing. The steam-cultivator turned everything up out of the ground, and at the same time exposed the earth to the advantage of atmospheric influence, and also enabled it to be enriched by the sunshine and the rain. He did not advocate deep cultivation at once, because they might have too much of the fertilizing element; the ground should be cultivated deeper and deeper gradually. Mr. Ruston concluded by stating the satisfactory results that had followed steam-cultivation on his own land, and that he believed steam-cultivation would be much more extensively used than it is at the present time.

Mr. OLLARD would like to know the cost of steam engines and tackle, and the cost of employing them on land. He thought the resolution that Mr. Catling had proposed should be supplemented in some way, because in its present form it would leave no practical result in the mind of anybody.

Mr. CATLING said he was thoroughly convinced that bad land by steam cultivation could be made comparatively good, and that they could apply the system to land so ably represented in Mr. Robinson's paper. He hoped the result of their discussion would be that they would arrive at some practical result, and that they would induce gentlemen of large influence to give proper consideration to the matter.

Mr. WALKER, in reply to questions put to him, stated that the cost to him of steam cultivation was about 4s. an acre if only ploughed one way; but he ploughed his land two ways, therefore it cost him 8s. an acre. The engine he reckoned cost him about 6s. a day.

Mr. LOOKER asked Mr. Walker if he would let the engine for 6s. a day, and he replied in the affirmative, stating that he would let Mr. Looker the engine for 6s. a day now for three months. Mr. Looker answered that he would have it, and would send for it to-morrow.

The CHAIRMAN did not know whether it was Mr. Robinson's own calculation or whether he had borrowed it, but what he had said about the maintenance of an agricultural horse being £46, he considered to be very excessive indeed. He had known practical men who had gone thoroughly into the question, and he knew from them that the maintenance of a horse did not amount to any such sum. At the adjourned discussion he thought they could take into consideration whether steam cultivating is everything, and steam ploughing nothing, and he hoped too something would be said in favour of the cart-horse so as to show that the cultivation could be done by the cart-horse as cheaply, if not as effectually, as it could be done by steam cultivation. He would be very glad to see those present attend the adjourned meeting, because he thought the subject is one of very great interest. They had not yet had a meeting out of Wisbech, and therefore he proposed that the adjourned meeting should be held at the Griffin Hotel, March, on the 24th of November next.

Mr. ISAAC ROBINSON said, in reference to the maintenance

of a horse, that the estimate was quoted from a report by Mr. J. C. Morton. That included the cost of everything in connection with the animal, the cost of harness, the wages of the man to look after it, &c. He should not like it to go forth that he meant it would cost £16 a year simply for the keep of a horse.

Mr. W. C. LITTLE said it would be very necessary for them to know the cost and the expense of the work which had been spoken of. His own experience was very different to that of Mr. Walker. The cultivation of his land cost him 30s. an acre, which was very different to 8s. an acre.

A vote of thanks was passed to Mr. Robison.

ROSS AGRICULTURAL SOCIETY.

There was a small show of Hereford stock, though what there was was of some quality and in good condition, considering the bad season. The competition was exceedingly limited, being confined, in many of the classes, to the very minimum number of entries compatible with the awarding of a prize at all; in several of the other classes the entries were confined to either one or two, while in others, again, there were none whatever. The Shorthorns were but meagrely represented numerically, although such as were on show were of a superior kind. The sheep classes were good throughout, as they always are at Ross, though like the cattle, the show was small, and the competition consequently limited. The same may be said of the pigs, there was a good show as to merit, but a scanty one as to numbers, albeit the competition was more brisk, as it might well be in this department. Extra Stock comprised a few horses, some Shropshire sheep and lambs, and a few calves and heifers, to most of which, as will be seen from the list, prizes were awarded. It should be stated, however, that there was scarcely any competition in this extra class, the several specimens shown being each rather exceptional than otherwise. The several samples of wheat and barley sent were of excellent quality, and mostly of good colour. The show of roots, like the show generally, was small, but, regard being had to the before mentioned difficulties, which the cultivators of the soil, by reason of the excessive drought, have laboured under, the several specimens entered were really almost better than could have been hoped for. Some of the mangolds, and also the swedes and turnips, with the cabbages were stupendous as to growth, and apparently equally fine as to quality. The implement department was mainly made up by local exhibitors.

PRIZE LIST.

CATTLE.

HEREFORD.

Bull, more than two years old.—Prize, £3, P. S. MacDougall (Noble Boy). The class highly commended.

Bull under two years old.—Two entries. Prize withheld for want of competition.

Breeding cows and their calves, over three years old.—Prize, £5, T. Duckham. Highly commended: P. S. MacDougall, Benhall.

Pair of heifers under three years old.—Prize, £2, P. S. MacDougall.

Pair of heifers under two years old.—Prize, £2, P. S. MacDougall. Highly commended: T. Duckham.

SHORTHORNS.

Bull, irrespective of age.—Prize, £3, G. Clive, Perrystone (Sovereign 1st). Highly commended: I. Theyer, Walford Court.

Two breeding cows and their calves, over three years old.—Prize, £2, Rev. W. H. Beever, Penraig Court.

ANY OTHER BREED.

Lot of breeding cattle in proportion to the acreage of land in the occupation of the exhibitor.—Prize, £3 3s., T. P. Brown, Weir End. Commended: P. S. MacDougall.

SHEEP.

LONG-WOOL.

Pen of ten breeding ewes.—Prize, £3, R. Loveridge, The Callow.

Pen of ten yearling ewes.—Prize, £3, R. Loveridge.

Pen of ten ewe lambs.—First prize, £2, R. Loveridge; second, £1, C. Kearsay, Glewstone.

Pen of ten wether lambs.—First prize, £2, R. Loveridge; second, £1, A. Webb, Moraston.

Ram lamb.—First prize, £2, R. Loveridge; second, £1, C. Kearsay.

Yearling ram.—First prize, £3, not awarded; second, £2, T. S. Bradstock, Cobrey Park.

SHORT-WOOL.

Pen of ten ewe lambs.—Prize, £2, W. Marfell, Tretire.

Pen of ten wether lambs.—Prize, £2, W. Marfell.

PIGS.

Boar.—First prize, £2, Rev. W. Holt Beever; second, £1, C. Kearsay.

Sow in farrow or with pigs.—First prize, £2, J. Hartland, Biddlestone; second, £1, J. Marfell, Pigeon House.

Pig belonging to an agricultural labourer.—First prize, £1 5s., W. Greeuway; second, £1, J. Castree; third, 15s., John Worgan.

EXTRA STOCK.

Berkshire sow and Pigs.—Prize, £1, C. Kearsay.

Entire cart-horse.—Prize, £2, I. Theyer.

Ten Shropshire wether lambs.—Prize, 10s., A. Armitage, Dadnor.

Ten Shropshire ewe lambs.—Prize, 10s., A. Armitage.

Fifty Shropshire ewes, under two years.—Prize, £2, A. Armitage.

Fifty Shropshire ewes, over two years.—Prize, £2, A. Armitage.

Nag horse (hunter).—Prize, £1 12s., A. N. Dowle, Bernthan Court.

Yearling cart colt.—Prize, £1 12s., A. N. Dowle.

GRAIN.

Four-bushel sack of white wheat.—First prize, £2 2s., J. Cadle, Over-Ross Farm; second, £1 1s., C. Kearsay.

Four-bushel sack of red wheat.—First prize, £2 2s., A. Armitage; second, £1 1s., J. Cadle.

Four-bushel sack of malting barley, a fair sample from a bulk of not less than 100 bushels.—First prize, £3 3s., John Cadle, Ballingham Hall; second, £2 2s., John Cadle, Over-Ross Farm.

ROOTS.

Four acres of swedes.—Prize, silver cup, A. N. Dowle.

Four acres of turnips.—Prize, silver cup, J. Hartland, Biddlestone.

Three acres of swedes.—Prize, silver cup, I. Theyer, Walford Court.

Three acres of turnips.—Prize, silver cup, T. P. Brown, Weir End.

Collection of roots grown on the same farm, twelve of each to be exhibited of mangel, swedes, turnips, and carrots, any variety.—First prize, £1 7s., R. Scudamore, Fengethley; second, 15s., I. Theyer, Walford Court.

At the dinner, Mr. G. CLIVE, the Chairman, said, Mr. Duckham had, in a very plaintive tone, expressed a hope that he would become a patron of the white faces, and not patronise the Shorthorns. He read the able letter of Mr. Duckham in the *Agricultural Gazette*, in which he proved that the Herefords were better than the Shorthorns. But why should Shorthorns be excluded from Herefordshire? If the Shorthorn was so inferior, why should it be shut of the county? It was invidious to keep it out. Now he had got a prize that day for a Shorthorn, but Mr. Duckham through an unfortunate accident failed. He did hope that Mr. Duckham would allow those who wanted milk for their dairies to get those cattle which were best adapted to supply what they wanted (laughter). The Shorthorn, although it did not lay on so much flesh as the Hereford, was better suited for many countries than the Hereford.

The Rev. W. HOLT BEEVER asked whether they could not all join to get up a good exhibition. They could do it if they would simply take some interest in it. He partook of none of the jealousy about Shorthorns and

Herefords. He could tell them that he greatly admired their Herefords, but he claimed for the Shorthorns that they were good cattle, and he did not see why those who had begun with them should not continue to go on with them. They might have a magnificent show at Hereford. They had the animals. There were Mr. Arkwright's animals, Mr. Wigmore's, and many other gentlemen whom it would be invidious to mention, but what they wanted to do was to unite together and to determine that they would have a good show. They had the elements of a first-class Cotswold, and they had a fine, square-built, flourishing, close-wooled sheep, and also several other very excellent varieties. Let all these be cultivated, and let every man exhibit and they would have a good show. He did not think that they could go on as they were, because he thought they were going on a false idea.

Mr. T. S. BRADSTOCK said the falling off this year was attributed to the want of keep, but in his opinion there was another reason, viz., this, that a good deal of the stock had been sold during the last two or three weeks. He regretted hearing of some instances of cattle being sold £2 or £3 per head less than they were worth in the spring, because he feared that they had been sold owing to the shortness of keep and to provide for the payment of rent, tithes, rates, and other expenses, the heavy charges to which the occupiers of land were liable. It had been ascertained that the growing crops gathered last harvest would not, when brought to market, be more than sufficient to pay the half-yearly rental, and a good deal would be required for the keep of the cart horses which could not be sold off the farm. It would not, therefore, under these circumstances, have surprised him if he had not seen anything in the showyard. He could not help saying that he had felt surprise in reading the reports of agricultural meetings in this and other counties held during the last month or two, to observe that scarcely any allusion had been made by any of the speakers as to the unsatisfactory state of the agricultural interest, aggravated by the long drought from which they had suffered. It seemed to him as if all the speakers had been

so wound up by the horrors of the war on the Continent that they had not a word of encouragement to cheer the farmers in the trying times now before them. He recollected some twenty years ago, when great depression prevailed, that there was scarcely a meeting at which sympathy was not expressed for them. He recollected the late Sir Joseph Bailey, in acknowledging the toast of the Members for the County at the Agricultural Society's dinner, after speaking feelingly and forcibly to his constituents with respect to the difficulties they had to contend with, said he thought that at such times as those the landowners should look around them and see whether there was not some pleasure or some luxury which might be dispensed with and which would help their tenants. He knew of no greater benefit to a district than the landowner who spent his income in the neighbourhood in which he lived; but there was one luxury which he had no hesitation in saying ought to be dispensed with, not only because it was a tenant-farmer's grievance, but because it was a national grievance, and that was the over-preservation of game. It was a grievance, because it robbed the tenant-farmer of his profits, and this was particularly so with regard to rabbits, which in many instances were gamekeepers' perquisites. He thought compensation ought to be made, but he had heard of many instances of compensation being obtained, and of cases where compensation should have been received, and yet the tenants very soon afterwards quitting the farms. He knew of nothing more enjoyable than good sport, and a gentleman had a perfect right to reserve to himself the right of shooting, but in his opinion only so long as he did not injure his neighbours. He wished it to be understood that he was not speaking of any one. He knew some landlords who preserved their game, and who had some fine shooting, and yet their tenants were prosperous and happy men, and were perfectly satisfied with their landlords. They would easily guess the reason why.

Mr. W. MORRIS, the secretary, said that there had been various reasons assigned for the smallness of the show, but he attributed it to a want of money. He thought if they could increase the premiums they would soon have a larger show.

SALE OF THE CASTLE FRASER HERD OF POLLED CATTLE.

The fine herd of polled cattle, the property of Colonel Fraser of Castle Fraser, Aberdeenshire, was disposed of by public auction at the home farm. Mr. Thomson, Clayhills, Aberdeen, was the auctioneer. The buyers, animals, and prices were as follows:

COWS AND CALVES.

Maggie, calved June, 1863, bred by Colonel Fraser.—Mr. Fraser, Aquhertoun, Kintore, 26 gs.
 Maria (heifer calf), calved April 25, 1870.—Mr. Walker, Portlethen, 13 gs.
 Sybil, calved April, 1864, bred by Harry Shaw, Bogfern.—Sir George M'Pherson Grant, Bart., of Ballendalloch, 63 gs.
 Fred's Darling (twin heifer calf), calved March 14, 1870.—Mr. Morison, Bognie, 39 gs.
 Fred's Second Darling (twin heifer calf), calved March 14, 1870.—Mr. Paterson, Mulben, 37 gs.
 Lily, calved April, 1865, bred by Colonel Fraser.—Mr. Smith, Burnshangie, Strichen, 40 gs.
 Major (bull calf), calved April 27, 1870.—Mr. Morison, Bognie, 41 gs.
 Blanche, calved July, 1865, bred by Colonel Fraser.—Mr. Fordyce, M.P., Bruckley, 50 gs.
 Melrose (bull calf), calved July 5, 1870.—Mr. Walker, Portlethen, 26 gs.
 Georgina, calved March, 1866, bred by Colonel Fraser.—Mr. Mitchell, Balgreen, Gamrie, 37 gs.
 Delta (heifer calf), calved April 7, 1870.—Mr. Manson, Oakhill, Old Meldrum, 32 gs.
 Countess, calved February, 1865, bred by Colonel Fraser.—Mr. Beaton, Nethenty, Old Meldrum, 14 gs.
 The Laird (bull calf), calved May 10, 1870.—Mr. Anderson, Anglesfield, Aberdeen, 40 gs.

Young Grace, calved April, 1864, bred by Colonel Fraser.—Lord Aberdeen, 16 gs.
 Sir William (bull calf), calved July 14, 1870.—Lord Fife, Duff House, 53 gs.
 Fanny, calved June, 1866, bred by Colonel Fraser.—Lord Fife, 40 gs.
 Lord Ornoch (bull calf), calved June 3, 1870.—Mr. Duncan, Fortray, Gamrie, 31 gs.
 Cyril, calved April, 1867, bred by Mr. M'Combie, Easter Skene.—Mr. Buchan, Auchmahoy, 27 gs.

TWO-YEAR-OLD HEIFERS.

Lively, calved January 20, 1868, bred by Colonel Fraser.—Lord Huntly, 67 gs.
 Bella, calved May 24, 1868, bred by Colonel Fraser.—Colonel Ferguson, Pitfour, 36 gs.
 Emily, calved May 1, 1868, bred by Mr. M'Combie, Easter Skene.—Sir A. Bannerman, Crimmoagate, 34 gs.

YEARLING HEIFERS.

Susy, calved January 13, 1869, bred by Mr. Harry L. L. Morison of Blair.—Mr. Morison, Bognie, 42 gs.
 Beauty, calved July 5, 1869, bred by Colonel Fraser.—Mr. Taylor, Glenbarry, 37 gs.
 Lovely, calved April 27, 1869.—Mr. Ferguson, Skellymarno, Old Deer.

BULLS.

Cupbearer, calved March 20, 1868, bred by Sir George Macpherson Grant of Ballindalloch, Bart.—Mr. M'Combie, M.P., Tillyfour, 38 gs.
 Harry, calved March 11, 1869, bred Mr. Harry Shaw, Bogfern.—Sir A. Bannerman.

ONE-YEAR-OLD STOT.

Charlie, calved April 24, 1869.—Mr. Martin, Aberdeen, 25 gs.

SALE OF MR. LYNN'S SHORTHORNS,

AT STROXTON, GRANTHAM, ON THURSDAY, OCTOBER 27TH, 1870.

BY MR. H. STRAFFORD.

A paragraph has recently been going the round of the papers headed, "What is show condition?" It might readily be answered "Successful advertising"; for although it is risky, expensive, full of anxiety, and often the cause of sore disappointment, yet it is the great means of introducing good cattle to the notice of one's own countrymen and the satisfaction of the foreigner, who is often ready, if the animals please him, to close on the spot, irrespective of pedigree, breeding, or price. Moreover, if a man can win about £30 or £40 a year, it pays him, and all over that becomes with ordinary luck a profit. Mr. John Lynn's animals have been going the round of the show for several years, and with very fair success. Since the days of Great Comet (16192), a noted winner, he has exhibited at the Royal, the Lincolnshire, and adjoining county meetings, while at the more local shows he has generally had it very much his own way. Except the great training quarters at Warlaby and Towneley, Osberton and Broad Hinton, Branches Park and Broughton, few animals have left their quarters in better condition, more evenly fed, or in greater bloom than those from Stroxton. Queen of Diamonds, the second prize heifer at the Manchester Royal, was, we believe, sold for 200 gs. to go to Canada, and the great New York Mills firm took one also at a long price. Occasionally bulls, too, have been sold at large prices, as it was announced here that Sir Thomas Whichcote had given a hundred guineas for one.

All who left for Grantham on that bright October morning expected to find things in famous condition; nor were they in the least disappointed; for with the exception of two or three that had just calved, they were all, and especially the calves, in fine bloom. Full of hair, mostly pleasing roans, and with plenty of flesh, they were good to see. A very large company assembled by noon, and Mr. Strafford, anxious to be punctual, could not commence until the last relay had got something to eat in the somewhat too little barn; this, with a badly arranged entrance and exit for the cattle by double gates side by side, looked to be the only hitch in the sale. Mr. Earle Welby, M.P., presided at the luncheon, and, as Mr. Strafford said, "was a most business-like chairman."

Clematis, the first lot, fourteen years old, was short on the leg and had a nice head, and this, with good condition, sent her along to 32gs., at which price Mr. Woods got her for Mr. Foljambe; a pair of plain three year old twins by Prizeman from this cow he let pass, but he secured one of the twin's daughters by Cambridge Duke 4th, a nice little red heifer, fine in the bone and low in the loam, at 36gs., and the old cow's own daughter by the same bull at 40gs., a pretty thing full of hair, with a long face. The two bulls of the same tribe, like all the bulls and everything else, sold remarkably well. Ama, the second cow and winner of half-a-dozen prizes, went at 31gs. to Mr. Sharp, of Northamptonshire; her bull Grandee 2nd, a hairy roan, with white hind legs, had a rather narrow loin, but was otherwise one of the best, and fetched 50gs.

The Pomp family was the tribe, however, upon which Mr. Lynn has been most successful. Old Pomp herself, Prizemen, and Pompous had all been noted prize winners, and the sort was brought by Mr. Lynn's father, from Earl Brownlow, in 1845. Pompous was certainly a fine large cow, somewhat patchy on her rumps, but with a good breast end and on short legs. Thirty was the opening bid, and Mr. H. Burt at last got her at 44gs.; her half-sister, Princess of Wales, was also another good lot, and near calving; and Mr. Caswell got Prima Donna, own sister to Princess of Wales, two years; younger and all, 16gs. cheaper. Patina out of Pompous, and three years old was a very fine animal, even, of good growth, heavy in condition, but very healthy looking; she was quite one of the best, and competition ran high for her all round the ring; Mr. Wilkinson's sharp "five" was too quick for his opponent, and he got her at 75gs. Some thought Pride of Thorndale, three years old, out of Princess

of Wales, the better of the two; at all events she had youth on her side, and she goes to Mr. Catchpole, in Suffolk, probably to appear at the county meetings next year. Peep-o'-night, a plain red and white, with fine forequarters, went cheap at 40gs. to Mr. Wortley; being headstrong and obstinate she took some time to get from the ring, and the pedigree was given of Proud Rose, before she could be removed. A nice heifer out of Pompous, elicited several bidders, until 40 was called; "guineas" said Mr. Holland, which was taken as two, and she went cheap. Prize Rose of this family was also very good, and a prize winner; going into Mr. Prudd's possession at 45gs. she will, undoubtedly, come out again next year. Prince Lincoln, a smart stylish bull, was bought by Mr. Upson, of Essex, at 63gs., also for showing, and Prince Imperial, a fine hairy roan calf, made 48gs.

The fashionable blood could not, however, in point of personal beauty, compare with the old P. family, which came originally from Mr. Wilkinson's stock through Earl Brownlow. Cheerful, by the mysterious Mystic (20391), out of a daughter of Mr. Adkins' Charmer 5th, was anything but handsome; Mr. Baxter, however, thought more of her than most people, and he bought her at 60gs. for Colonel Towneley; a tolerably good proof of her excellence. Her heifer was also pretty to look at, and she was bought for Mr. Graham at two guineas dearer than her dam. May Dew, a white heifer, of the old No. 13 tribe, went cheap enough to Mr. Burgess at 31gs., and a white Blanch heifer, level and very good, only made 47gs. for Mr. Wilkinson. Seraph, with two pure Bates' crosses on the Seraphina tribe, had a good deal of style, and there was considerable bidding for her, Mr. Snodin going well up to 100gs., at which price she was sold. Her son seemed light of flesh and narrow topped, but Mr. Burchall fancied the three pure Bates' crosses, and got him at 40gs. Gipsy Gwynne, an 85gs. purchase at Biddenham, was put in at 50 and ran away with Mr. Howard and others up to 55gs., when the glass was hoisted. Six came at last, and Mr. Snodin and Lord Norris closed until the latter secured her at a 100gs. for Towneley. Cambridge Duke 4th, who was paraded stands on short legs, with a good head and neck; while his stock were very good with fine bone but narrow tops, reminding us very much of Lord Chancellor's produce at Mr. Rowland Wood's last year. As no one offered the 200gs. reserve he was passed out again.

A few pigs were offered at the close of the sale, bred chiefly from Lord Radnor's sort. Mr. Lynn has won so many prizes with them that they were bound to sell well; one boar making 12gs. and another 10gs.

Soon after the sale finished a heavy shower came down on the departing company, who were all, still, in good spirits to find a persevering tenant-farmer had had such a capital sale. We hear that some eight or ten animals are left with a heifer and calf of the Cambridge Rose blood as a nucleus of a future herd.

COWS AND HEIFERS.

Clematis, roan, calved February 1, 1856, by Sir John (12054), out of Clementina by Clementi (3399).—F. J. S. Foljambe, 32gs.

Ama, white, calved in June, 1853, by Marquis of Exeter (14906), out of Amy by Burglar (10007).—Mr. Sharp, 31gs.

Pompous, roan, calved in March, 1861, by Great Comet (16192), out of Pomp by Sir John (12054).—H. Burt, 44gs.

Cheerful, red and white, calved April 26, 1862, by Mystic (20391), out of Coquette by Mameluke (13289).—Col. Towneley, 60gs.

Carry, roan, calved November 19, 1862, by Waverley 4th (21084), out of Clotilde by Alma (12387).—Mr. Blankney, 30gs.

Princess of Wales, roan, calved March 31, 1863, by Waverley 4th (21084), out of Pomp by Sir John (12084).—Mr. Garfit, 56 gs.

Fair Maid, roan, calved in August, 1864, by Waverley 4th (21084), out of Fame by Great Comet (16192).—Mr. Kirk, 34 gs.

Prima Donna, roan, calved in June, 1865, by Waverley 4th (21084), out of Pomp by Sir John (12084).—J. H. Casswell, 40 gs.

Lady Julia, roan, calved in June, 1865, by Julius Cæsar (22008), out of Comet's Farewell by Great Comet (16192).—T. Adwick, 37 gs.

Juliette, red, calved in June, 1865, by Julius Cæsar (22008), out of Fame by Great Comet (16192).—Mr. Blankney, 30 gs.

May Dew, white, calved June 26, 1866, by Claxton (21433), out of May Queen by Master Rembrandt (16545).—J. Burgess, 31 gs.

Patelina, rich roan, calved in August, 1866, by Waverley 4th (21084), out of Pompous by Great Comet (16192).—Mr. Wilkinson, 75 gs.

Seraph, roan, calved December 6, 1866, by 6th Grand Duke (19876), out of Seraphina 19th by Imperial Oxford (18084).—J. Snoden, 100 gs.

Charm, roan, calved in December, 1866, by Prizeman (24870) out of Clematis by Sir John (12084).—Mr. Garfit, 36 gs.

Charming, roan, calved in December, 1866, by Prizeman (24870), out of Clematis, by Sir John (12084).—J. H. Casswell, 40 gs.

Pride of Thorndale, rich roan, calved July 20, 1867, by Thorndale Grand Duke (25310), out of Princess Royal by Waverley 4th (21084).—N. Catchpole, 71 gs.

Peep o'Night, red and white, calved February 20, 1868, by Prizeman (24870), out of Peep o'Day by Great Comet (16192).—E. Wortley, 40 gs.

Proud Rose, rich roan, calved February 27, 1868, by Garibaldi (17919), out of Pompous by Great Comet (16192).—W. Holland, 42 gs.

Princess of Thorndale, rich roan, calved April 30, 1868, by Thorndale Grand Duke (25310), out of Princess Royal by Waverley 4th (21084).—Mr. Johnstone, 45 gs.

Blanchette 2nd, white, calved May 10, 1868, by Costa (21487), out of Brilliant by May Duke (13320).—Mr. Wilkinson, 47 gs.

Peep o'Rose, red, calved in December, 1868, by Garibaldi (17919), out of Peep o'Day by Great Comet (16192).—Capt Aveling, 28 gs.

Lady Gray, roan, calved in December, 1868, by Thorndale Grand Duke (25310), out of Lady Julia by Julius Cæsar (22008).—Mr. Wyles, 22 gs.

Gipsy Gwynne, red and little white, calved July 24, 1869, by Grand Duke of Lightburne (26290), out of Goody Gwynne by 5th Grand Duke (19875).—Lord Norriss, 100 gs.

Lady, roan, calved in September, 1869, by Thorndale Grand Duke (25310), out of Lady Julia by Julius Cæsar (22008).—R. Burchnall, 25 gs.

Florence, roan, calved in September, 1869, by Thorndale Grand Duke (25310), out of Flora by Waverley 4th (21084).—Mr. Hall, 18 gs.

Prize Rose, roan, calved in December, 1869, by Cambridge Duke 4th (25706), out of Peep o'Day by Great Comet (16192).—J. Frudd, 45 gs.

Christmas Rose, red, calved in December, 1869, by Cambridge Duke 4th (25706), out of Charming by Prizeman (24870).—F. J. S. Foljambe, 36 gs.

Primrose, rich roan, calved in January, 1870, by Cambridge Duke 4th (25706), out of Patelina by Waverley 4th (21084).—Mr. Marrion, 40 gs.

Cheerful Rose, red, calved in April, 1870, by Cambridge Duke 4th (25706), out of Cheerful by Mystic (20391).—Mr. Graham, 62 gs.

China Rose, roan, calved in June, 1870, by Cambridge Duke 4th (25706), out of Clematis by Sir John (12084).—F. J. S. Foljambe, 40 gs.

Wiseton Rose, roan, calved in April, 1870, by Cambridge Duke 4th (25706), out of May Dew by Claxton (21433).—Mr. Mackinder, 34 gs.

Parting Rose, roan, calved in July, 1870, by Cambridge Duke 4th (25706), out of Prima Donna by Waverley 4th (21084).—Mr. Tennant, 31 gs.

BULLS.

Cambridge Duke 4th (25706), red and white, calved June 1, 1867, by 4th Duke of Thorndale (17750), out of Red Rose by Marmaduke (14897).—Reserve 200 gs., not sold.

Prince Lincoln, roan, calved in August, 1869, by Thorndale Grand Duke (25310), out of Prima Donna by Waverley 4th (21084).—J. Upsom, 63 gs.

Duke of Suez, roan, calved in October, 1869, by Cambridge Duke 4th (25706), out of Seraph by Grand Duke 6th (19876).—S. Burchnall, 40 gs.

Cantab, red, calved in November, 1869, by Cambridge Duke 4th (25706), out of Charmer by Prizeman (24870).—Mr. Garfit, 55 gs.

Grande 2nd, rich roan, calved in January, 1870, by Cambridge Duke 4th (25706), out of Ama by Marquis of Exeter (14908).—Col. Reeve, 50 gs.

Prince Imperial, roan, calved in February, 1870, by Cambridge Duke 4th (25706), out of Pompous by Great Comet (16192).—Mr. Mackinder, 48 gs.

Cockswain, red, calved in April, 1870, by Cambridge Duke 4th (25706), out of Camilla by Waverley 4th (21084).—Mr. Hack, 32 gs.

Charley, red, calved in September, 1870, by Cambridge Duke 4th (25706), out of Carry by Waverley 4th (21084).—Mr. Turner, 17 gs.

SUMMARY.

	£	s.	d.	£	s.
32 cows	46	0	0	1,472	2
7 bulls	45	15	0	320	5
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39 averaged	£46	19	2	£1,702	7

SALE OF SHORTHORNS IN ABERDEENSHIRE.

The first of the numerous sales of young Shorthorns in Aberdeenshire for the season has been held at Upper-mill, parish of Tarvas, where 25 young bulls and 23 heifers, the property of and bred by Mr. W. S. Marr, were offered by public auction. Of the 25 bulls offered, ten had for sire the three-year-old roan bull Macduff, bred by Mr. Bruce, Broadland, Huntly; eight of the bulls were descended directly from the old bull Gold-Digger; three were after Julius Cæsar, bred by Mr. Cruickshank, Sittyton; the other four were by Prince Louis, Highland Chief, Roseberry, and Star of Peace. The heifer calves were all after Julius Cæsar and Macduff; while Alonzo, Prince Louis, Macduff, and Prince of Stokesley were the sires of the yearling heifers. Among the sires of the two-year-old heifers was Marmaduke II., the old roan bull bred at Sittyton, that in the possession of Mr. Cochran, Little Haddo, carried the challenge cup as the best

Shorthorn at the Royal Northern Agricultural Society's Show at Aberdeen in 1869. Mr. Mitchell, St. John's Wells, Fyvie, discharged the duties of auctioneer. The following were the list of the buyers, the animals, and the prices realised:

BULL CALVES.

Minstrel Boy, red, calved May 5, 1869.—Mr. Brown, Pitnamoon, Kincardineshire, 29 gs.

Young Gold-Digger, red, calved November 26, 1869.—Mr. Noble, West Aldie, 27 gs.

Bazaine, red, calved February 18, 1870.—Mr. Bruce, Inverquhonnery, 30 gs.

Agamemnon, white, calved February 14, 1870.—Mr. Barclay, Aberdour House, 19 gs.

Renown, roan, calved March 8, 1870.—Mr. Maitland, Nether-ton, 35 gs.

My Favourite, roan, calved March 17, 1870.—Mr. Barron, Mains of Crichtie, 32 gs.
 Mitrailleuse, roan, calved January 25, 1870.—Mr. Gordon, of Craignyle, 24 gs.
 Rip Van Winkle, roan, calved March 7, 1870.—Mr. Leask, Skelmaffilly, 25 gs.
 Lesseps, red, calved April 9, 1870.—Mr. Morrison, New Seat, 21 gs.
 His Highness, red, calved April 24, 1870.—Mr. Maitland, Little Methlic, 35 gs.
 Nugget, red, calved April 24, 1870.—Mr. Milne, Kirkton of Bourtie, 19 gs.
 Steinmetz, red, calved March 29, 1870.—Mr. Brown, 16 gs.
 Bismark, red, calved April 5, 1870.—Mr. Anderson, Auchincrieve, 24 gs.
 Artilleryman, red and white, calved March 31, 1870.—Mr. Ritchie, Mill of Burns, Fyvie, 22 gs.
 Ready Money, roan, calved May 4, 1870.—Mr. Philip, Gownor, 21 gs.
 McMahon, red and white, calved April 26, 1870.—Mr. Brebner, Balquhanduhty, Methlic, 20 gs.
 Mountain Chief, red and white, calved April 26, 1870.—Mr. Burr, Tulloford, Tarves, 19 gs.
 Moltke, red, calved March 31, 1870.—Mr. Hay, Nethermill, 15 gs.
 Merry Andrew, roan, calved May 31.—Mr. Jafray Banks, Fyvie, 15 gs.
 Caledonia, roan, calved May 11, 1869.—Mr. Croke, Cromlet, 32 gs.

HEIFER CALVES.

New Year's Gift, red, calved January 1, 1870.—Mr. Gray, Bartle Chapel, 20 gs.
 Annie, roan, calved February 10, 1870.—Mr. Mollison, Inverness, 29 gs.
 Cinderella, red and white, calved March 20, 1870.—Mr. Gordon, of Craignyle, 29 gs.

Mavourneen, roan, calved March 14, 1870.—Mr. Anderson, Auchincrieve, 17 gs.
 Rocket, red, calved March 6, 1870.—Mr. Mollison, 17 gs.
 Diana, roan, calved April 1, 1870.—Mr. Leask, Skelmaffilly, 20 gs.

ONE-YEAR-OLD HEIFERS.

Amelia, roan, calved April 30, 1869.—Mr. Ironside, Cairns, New Deer, 15 gs.
 Rosebud, red, calved June 30, 1869.—Mr. Pirie, Orchards-town, Udny, 18 gs.
 Regina, red, calved February 24, 1869.—Mr. Gordon, 20 gs.
 Dinah, white, calved January 29, 1869.—Mr. Walker, Tillymaud, 25 gs.
 Joan of Arc, roan, calved March 23rd, 1869.—Mr. Adam, Mill of Balcairn, Old Meldrum, 24 gs.
 Moss Rose, red, calved April 4, 1869.—Mr. Shepherd, of Aldie, 31 gs.
 Songstress, red and white, calved February 14.—Mr. Duthie, Tarves, 20 gs.
 Molly, roan, calved March 28, 1869.—Mr. Campbell, Kinellar 26 gs.

TWO-YEAR-OLD HEIFERS.

Cleopatra, red and white, calved May 20, 1868.—Mr. Mitchell, Meikle Haddo, 25 gs.
 May Queen, red, calved May 20, 1868.—Mr. Thompson, New Seat, 25 gs.
 Romp, red and white, calved March 16, 1868.—Mr. Bruce, Inverquharney, 28 gs.
 Sporrán II., roan, calved March 15, 1868.—Mr. Duthie, Tarves, 29 gs.
 Goldie VIII., roan, calved March 18, 1868.—Mr. Oran, Kirkton, Inverness, 36 gs.
 Lady Polwoth III., calved March 22, 1868.—Mr. Pirie, Orchardstown, 30 gs.
 Helena, roan, calved March 30.—Mr. Mollison, 30 gs.
 Apricot X., red and white, calved January 10, 1868.—Mr. Bruce, 26 gs.

THE BATH AND WEST OF ENGLAND SOCIETY, AND SOUTHERN COUNTIES ASSOCIATION.

The usual meeting of the Council was held on Tuesday, October 25th, at the White Lion, Bristol. Present, Sir J. T. B. Duckworth, Bart., in the chair, Messrs. T. D. Acland, M.P., R. Brenbridge, J. T. Boscawen (Hon. and Rev.), W. A. Bruce, C. Bush, R. H. Bush, T. Danger, J. T. Davy, J. Daw, A. F. M. Druce, F. W. Dymond, Jonathan Gray, A. R. Grenfell, J. W. King, J. Lush, H. A. F. Luttrell (Colonel) H. St. John Maule, H. G. Moyses, T. Phillpotts (Rev.), J. C. Moore Stevens, A. C. Thynne (Rev.), H. Williams, H. Spackman (official superintendent), W. Smith (official accountant), and J. Goodwin (secretary and editor).

GUILDFORD MEETING, 1871.—The Council resolved that this meeting shall commence on Whit-monday, May 29th, and having approved the stock and poultry prize sheets ordered that they be forthwith printed and circulated. The amount offered in prizes by the Society is much greater than at any former meeting, in addition to which there are local prizes for wheat, hops, and groups of Southdown ewes and lambs. Sussex cattle are placed on the same footing in the prize sheet as Devons, Herefords, and Shorthorns. There are also prizes for four classes of Channel Island cattle. In the sheep classes several additions have been made. As a means of encouraging the horse show the Council has resolved again to reduce the charge for horse boxes in the show yard. In the pig classes there are separate classes for Berkshires, which will not be allowed to compete with animals of the large or small breed, Mr. Miles, of Exeter, again offers prizes for horse-shoeing.

Among the special conditions affecting the exhibition of stock are the appointment of "two inspectors to examine sheep on their admission to the show yard with instructions to report to the stewards any cases in which sheep have not been really and fairly shorn bare," and that "all cattle will be required to be paraded in the ring at least once a day at the discretion of the stewards."

Members, subscribing not less than £1 per annum, elected on or before the last Tuesday of February next, will be entitled to exhibit with special privileges.

THE IMPLEMENT COMMITTEE reported that they had amended the regulations with a view to the exclusion from the showyard of any frivolous objects, and any articles thought unsuitable or foreign to the purposes of an agricultural meeting.

THE MEETING OF 1872.—Mr. H. Williams having presented an invitation to the Council, from a public meeting of the inhabitants of Dorchester and neighbourhood, for the Society to hold its meeting there in 1872, a deputation was appointed to visit the town, to inspect the ground offered for show yard and fields, and to report to the Council at the next meeting.

NEW MEMBERS.—C. G. Roberts, Shotter Mill, Haslemere; Capt. Long, Woodlands, Congressbury; W. Baker, Templestreet, Bristol; J. Galpin, Dorchester.

ECHOES FROM THE AUTUMN MEETINGS.

CHESHIRE.

At Over, Mr. JOS. ASTON (Brassey Green) considered the show of cheese had been good for a local society, and that to which prizes had been given was excellent. It was true that the one they had tasted at dinner would be better if it contained a little more fat, or, as he should have said, a little more butter, and if it were about three weeks older, for he had no doubt in his own mind that it would improve by keeping. When a goodly number of competitors met in a show yard, he knew from experience that most of them were sanguine about taking prizes, and if they failed in doing so they were disposed to lay part of the fault to the judges, whereas they might be entirely innocent in the matter. It was possible for an unsuccessful exhibitor of cheese to have a better dairy of cheese at home than a successful one, but the latter might be more fortunate in selecting the cheese he exhibited in a more forward state for the market; but the former, by keeping his cheese a little, might ultimately secure a higher price than the party who had gained an advantage over him in the show yard. He considered the show of butter very excellent. Most of the samples exhibited were of a superior description, and Mr. Bate and himself experienced some little difficulty in awarding the prizes; and if they did err, either as to the cheese or butter, he assured them it was only after frequent comparisons and great care and deliberation. They had heard a great deal of talk of late about American cheese-makers driving them out of the market, but he could assure the possessors of first-rate dairies of cheese that there was no fear whatever of that. He knew as a fact that there had been several lots of Cheshire cheese recently sold in London from 14s. to 16s. per hundred-weight higher than the top price obtained for American cheese. Notwithstanding the very large quantities of American cheese which had lately been imported into this country, nothing had yet reached the English shows comparable to the best English or Cheshire dairies. He believed that the American cheese-makers were jubilant when the English farmers were down upon their backs through the rinderpest attacking their cattle, and that the former confidently expected to dislodge the latter from the high position they had hitherto occupied; but, so far, they had failed to do so. The best Cheshire cheese possessed rare excellencies, and he, as a Cheshire man, did not feel disposed to give quarter to any cheese-maker in the world. This was a great dairy county; it once stood head and shoulders above all others, and its high position was still mightily felt when it came into competition with other dairy districts of England and Scotland. They had a practical demonstration of that when the Royal show was held at Manchester. But, notwithstanding the excellencies of Cheshire cheese, he advised them to keep their eyes open and to learn all they could in reference to cheese-making; and if with that they were skillful, energetic, and persevering, no doubt they would still succeed in making cheese.

Colonel CHOLMONDELEY, the chairman, said it was a fashion with newspaper writers and people in towns, to write or talk of the agricultural labourer as if he had scarcely any intellect. He wished to goodness that some of those men who wrote those paragraphs, and stated their opinions of the agricultural labourer, were set down in Australia or America, or anywhere, and left to shift for themselves compared with an agricultural labourer, instead of going about agitating others, who had only the wish to do their duty in the state of life in which they were placed. Take an agricultural labourer, and tell him they wanted a thing done—whether it was a bit of slating, of carpentry, of roofing, levelling, hedging and ditching—and there was no one thing which he would not do; he could turn his hand to anything—of course he (the speaker) was talking of the good one. Look at him with his 12s., 13s., or 14s. a week! his house so clean that you might eat your dinner off the floor! Look at him with a wife and children, and yet contriving to lay by something for his club. He (the speaker) only wished that the clubs were better, that he could persuade the members to put their money into the Government Savings' Bank instead of into clubs, where they sometimes lost the

accumulated savings of many years—lost them just at a time when they were most needed; whereas if they had Government security it would not be so. He asked them to look at the agricultural labourer, even when overtaken by distress or trouble; at such a time, who so independent, so loath to have anything done for him as he? If he (Colonel Cholmondeley) went out hunting or shooting and met an agricultural labourer—he was talking of men of a certain age—your agricultural chap between eighteen and three or four and twenty, who considered it manly to be uncivil and say only “no” and “yes,” was detestable; but, after he got settled and married, he had always a smile, touched his hat, and did something which made it a pleasure to meet him. If they met a fat-man he would say what was equivalent to “Bless you!” but if they met a man with a white jacket he scowled at you; and yet he, the skilled labourer, was preached up as a paragon of perfection; in him was supposed to be all the intellect and power of the country, and yet when he met you there was a scowl in his face, as much as to say “What business had you on that horse? I ought to be on it.” Well, all this was leading up to a point, and it was this—that as they had a special class for agricultural labourers, he would like to suggest to the members that those labourers who took prizes should receive dinner tickets.

Mr. R. DUTTON could not agree with what the chairman had said about the agricultural labourer, as he believed that education must tend to general advancement, and he hoped it was not true that the instruction given to the last generation had tended to their deterioration. Their young men might not seem so respectful as they ought to be, but he did not think that education was to blame for this; if so, what would be the case when education became general? They must bear in mind that if they educated a man he would think for himself; he would claim for himself, what was the right of every man, to form his own opinion on the subjects which came before him. He (Mr. Dutton) hoped that education would induce sober and industrious habits as well as a more intelligent performance of duties of the agricultural labourer. He would be glad if he could endorse all that had been said about labourers' cottages, but he happened to know that even in the neighbourhood of Delamere the floors were not quite so clean as the colonel had represented. Considering the population, in fact, there was no part of the county from which a larger number of nuisances was reported to the sanitary committee than from Delamere, and he was afraid therefore that the cottages which came under the notice of the colonel must have been some of the cleanest and best ordered. He hoped they were all as good as the colonel had represented.

At Tarporley, Sir PHILIP GREY EGERTON, the chairman, said, As to agreements between landlords and tenants, he had read many pamphlets and many speeches on this subject, and, so far as his judgment went, all that he had read had been based upon a false foundation—that of the possibility of adopting one regular and uniform plan in the drawing up of all agreements between landlords and tenants in the United Kingdom. He thought it would be impossible, owing to the different habits of the people, the difference in the modes of agriculture, and the varying customs of different neighbourhoods to establish one form which would adapt itself to the whole country. Of course, if the foundation were rotten the superstructure must fall; but he would say a word or two about that. It proceeded on the assumption that all ought to be left to the tenant. He perfectly agreed with that, if all tenants were good tenants. Any landlord could trust a good tenant, but he must have some hold upon a bad tenant. Now all the restrictions in leases were for the purpose of protecting the landlord against the bad tenant, and not with the view of tying the hands of a good tenant. They knew perfectly well that if a bad tenant got hold of a farm and took everything off it without putting anything into it, the farm must deteriorate, and if it went into the market and a tenant could not be found the landlord was obliged to take to the farm and work it for eight or ten years before he could

get a tenant; and therefore it was necessary there should be some restrictions, but that they should be interpreted liberally. He would give them an illustration of what he meant. In his leases there was a condition, that for every ton of hay taken off the farm a fine of £10 should be imposed. The other day he met a magnificent team of one of his tenants taking a load of hay off, which had been sold, and his only regret was that it had not been sold when hay fetched as much as now; and he (Sir Philip) was glad of this because he knew that man had manured his land with sovereigns. Although he had it in his power to have fined that tenant £10 for every ton, of course he was glad to see him making a profit of his farm in that way. But if that hay had belonged to a tenant, to a man who had neglected his farm, then he had the power in the lease to come down upon him. He gave this to show that a liberal feeling ought to exist between the landlord and tenant. Depend upon it, no written document or anything a lawyer could devise was equal to a good understanding between landlord and tenant—a mutual feeling of dependence one upon the other—a feeling of honour as between man and man, and Christian man and Christian man. The form of letting depended not upon landlords nor upon tenants, but upon both, and societies such as that were very well calculated to promote mutual good feeling between them. That led him to another subject which had been much discussed, the over-preservation of game; and certainly in some districts there was an excess of game—he was not alluding to rabbits, which were vermin, and ought to be exterminated—he had no feeling for a rabbit, except it were smothered in onions. But with reference to game, not in excess, he thought it would be for the benefit of the farmers to encourage it. They knew very well that gentlemen must have amusements, not battues, but moderate shooting, provided rabbits could be kept down. It was his greatest pleasure to see his neighbours coming out to beat, and take part in the sport. In some counties, where there is an excess of game, he thought there ought to be some special arrangements, not only as between tenant and farmer, but between the holders of adjoining farms, where the one farm was likely to be overrun with game from another. Still the great thing was to keep gentlemen in the county, because if the game were wholly destroyed there would be nothing for gentlemen to do, and they would go to where they could get shooting. He did not think this county suffered from an excess of game, but, depend upon it, the secret of keeping down game—he would tell them all, and he wished it were known beyond that room—to be to encourage fox-hunting—not that the foxes destroyed the game, but because the landlord invited all his friends to partake of the sport, and that, not to speak of collateral advantages arising through the sale of oats and other things, helped to keep down that excess of battue shooting more than anything else in the world.

CUMBERLAND.

At Brampton, Mr. W. TORR, of Aylesby, said: With regard to science and practice in agriculture, he believed it was now pretty well known and ascertained that intelligence could reach the farmers as well as any other class in the kingdom. It used to be a favourite maxim, and he knew a Prime Minister of England once said, that the farmers had heads as thick as the clods they cultivated. Well, that day they knew pretty well had gone by. "The piping times of peace" had not lately been very prosperous ones to farmers; they had suffered somewhat during the last three years; and no one perhaps could speak more feelingly on that point than himself, for he believed he had lost as much money as, if not more than, most farmers in England. And he was not himself responsible for that. He had done his best, rising up early and late taking rest; he had not exactly, perhaps, "eaten the bread of careflessness," but he had made no money, and he had lost a lot of money. He believed this, that the farming of the present day was a very slow way of getting rich. He did not know of any farmer of his acquaintance who had managed his farm so that another man could farm after him, and paid a good rent, who had saved a great deal at it. But a farmer took a great deal of breaking. They might trespass on him a good long while before he would break, and he thought that in paying 20s. to the pound he was more honest than his neighbours. However, be that as it might, they must now rouse themselves, and keep their heads wide awake, and maintain that improved position which the farmers of England had, to his certain

knowledge, attained within the last quarter of a century. They must take advantage of science and everything they could, but they must mind not to spend thirteence for a shilling's worth of labour, but rather to spend a shilling for thirteence-worth. He believed that in the steam cultivation they had an opportunity now of doing work which their forefathers never had, but he looked upon it rather as an addition to good cultivation than a cheapening of ordinary cultivation. It was simply that they could do by steam that which they never could do by horses. But they would never find that steam would do away with horses. If they adopted steam cultivation, he ventured to say they would not save one pair of horses in ten; they would do the work much better and more effectually by steam, but they would always have a thoroughly good lot of cart horses (as they had in Cumberland) to cultivate their land. He had lately had a long journey with his friend Mr. Gibbons—than whom he found there were few men more respected in Cumberland—through the counties of Bucks and Oxfordshire, to find a finely cultivated farm for a prize of 100 guineas. It was a compliment to Cumberland and Lincolnshire that the task was left in the hands of men belonging to those counties, and, putting them together, he thought they would take a good deal of beating. At all events they found a farm answering the necessary requirements, and as there were some ladies present he would willingly tell them it was a farm belonging to a widow. He ventured to think that a Cumberland farmer if he went down to Oxfordshire would find something to learn in the management of sheep. Travelling from home always learned people something. As Shakespeare said, "Home-keeping youths have ever homely wits," and this was as true as anything he could tell them. With regard to steam cultivation he held a little croquet of his own. He thought if they introduced it into the county on a broad scale of hiring, they were more likely to do good to their county than if they spent a lot of their own "tin" in purchasing machines. If the system obtained, a small farmer would hire for a twenty-acre field, when he would not employ steam if he had to buy his own implements. He hired very largely himself, and the more he hired the better he liked it. An engine was all the better for being worked, and the man who attended to it constantly was more likely to work it well than a casual hand.

Colonel SALKELD said there were questions which had such local interest, particularly to agriculturists, that he thought he should not be unfairly infringing their rules if he ventured to refer to one or two of them on the present occasion. The local taxation of this county was becoming a subject which was attracting the attention of farmers, and had frequently been discussed at Farmers' Clubs and agricultural meetings for the last few years. Now, during the last few years, Chancellors of the Exchequer had been very fortunate in claiming credit to themselves for obtaining, by their economy and good management, a considerable surplus; and when there was a surplus at the end of the financial year there was great expectation as to what taxes would be remitted. But on no occasion had he ever heard of a remission of local taxation. On the contrary, while there were lots of remissions of imperial taxation, our local taxation was constantly increasing, and this was a subject to which he thought we were fairly entitled to call the attention of our hon. members. It was not many years ago since in this county alone we spent on a lunatic asylum scores of thousands of pounds. Since then we had spent in improving our gaol, forced on us by Act of Parliament, tens of thousands, and in the last session of Parliament an Act for the better education of the people was passed. He did not intend on this occasion to discuss the merits of that Act; it was one he believed as to the expediency of which they would nearly all agree; but what he wished to refer to was the fact that any money required for carrying out that Act was to be obtained by local taxation. Perhaps there were good reasons why that money should be obtained from the country by local taxation, and he had no doubt the hon. members present on this occasion would tell them why it was so. He did not wish to trespass further upon their time; but he was sure the hon. members would agree with him that on occasions like this there were certain questions in which agriculturists took great interest, which it was quite legitimate that they should have an opportunity of discussing with their representatives, and exchanging views in a friendly way.

The Hon. C. HOWARD, M.P., said the business of the last

session of Parliament was of such a character that it was impossible to discuss all those local questions that Colonel Salkeld had referred to. He thought it was a happy thing that two such measures, and of such very great importance as those relating to the Irish land and the education of this country, were discussed at a time when there was not that alarm about war which at present so much occupied our thoughts; but he hoped in the next session of Parliament they would have time to attend to matters of great local and great social importance. There were many measures of importance before them—the game laws, the licensing laws, and the measures to which Colonel Salkeld had alluded. He thought they were aware that a Committee sat on the subject of local taxation, and made a recommendation that there should be a division of the system of rating. They had recommended that half the burden should fall upon the occupier and half on the owner. There were various other measures to be considered in connection with this. He believed, and he was glad in believing, that a measure would be proposed by the Government which his friend Mr. Percy Wyndham recommended—a measure for taxing mines and woods. He thought it was probable that in addition to that there might be proposed some system of taxing game. The question to which Colonel Salkeld had called their attention was one of a most important nature, and one which at this period of the evening he should hardly have time sufficient to discuss. But he agreed with him that the local burdens of the country had very much increased; they should be carefully considered, and he hoped they would be diminished. But we must remember, in considering any question of local rating, that there was a very great matter behind it, and that was the incidence of the income-tax. Those who had been in the habit of attending to the debates of the House of Commons must be aware that the great complaints that came from business men and annuitants were that they and a great many of the class who were in the habit of paying income-tax were called on, out of their incomes, to pay a greater share than was fair. Well, the answer to that had been hitherto, "It is true you have to pay so much of your income, but, on the other hand, farmers and owners of agricultural property have to bear the burden of local taxation, and their case is not properly considered." He hoped the result of their labours next session would be that the question might be fairly considered, and that they might come to a fair result.

Mr. H. M. JENKINS, Secretary to the Royal Society, had heard something said about steam cultivation, and he was delighted to find that Northumberland and Cumberland were becoming rapidly the head-quarters of steam cultivation. He hoped the interest which Cumberland farmers felt in the matter would be evinced next year by their large attendance to witness the trial of steam machinery at Wolverhampton, and they would learn then, he hoped, how to induce the Society to pay another visit to this part of the world.

BUCKINGHAMSHIRE.

At Buckingham, Mr. R. P. FITZGERALD, the chairman, said he wished to call the attention of Mr. John Treadwell to a speech made by him at Aylesbury, in which he stated that it would pay much better to break up grass lands and grow roots upon them. Some grass lands thus treated had produced 36 tons to the acre. As a landlord he was very glad to hear of any improvement which would benefit the farmers, but he did not think all the grass land wanted breaking up. Speaking fearlessly—for he thought he saw more than one hearty face that agreed with him—he could not understand the desire to break up the grass land over which they had so many pleasant rides in the hunting field. The changes in agriculture must have been marvellous since the time—some 80 or 100 years ago—when a history of Buckingham was written, from which he read the following extract: "So rich and fertile was the soil about Aylesbury and Buckingham, that it was considered a disgrace to a farmer to allow a heap of manure to be at the end of his field, to plough in straight lines, or to allow one drop of water to remain on his land beyond what fell from the heavens." He thought the agriculture of Buckinghamshire had advanced since then, as had been proved by the show that day.

Mr. R. DOIG said, with reference to the remark of the chairman about breaking up grass land to grow root crops, he might be excused for saying that the chairman showed by his observations that he was not a practical man. No practical farmer would think of breaking up rich grass land

All they wanted was to break up the poor grass land, which would then produce 50 to 100 per cent. more than it did at present, and would give what they wanted, twenty or even fifty times more employment to agricultural labourers than poor grass land. Was the absence of the county members, who were present at Aylesbury, and of the member for Buckingham, Sir Harry Verney, attributable to the fact that the North-West Bucks Association was thought unworthy of countenance by those gentlemen.

Mr. RICHARD GREAVES said the absence of members of Parliament at the present time was a slight upon their constituents and the agriculturists of that district of Buckinghamshire.

BEDFORDSHIRE.

At Biggleswade, Colonel GILPIN, M.P., said: Well may we be proud to represent such a county—a county which stands pre-eminently for agriculture, but equally so for the ability and devotion of its tenantry, and I hope I may say, if necessary, something for its landlords—a county which, under the auspices of the Member for Bedford and his family, produces agricultural machinery of world-wide reputation. But let us not forget how speedily the raw material of agriculture is, by the good taste of our friends on the southern side of the county, fashioned into articles of costume and wafted on the wings of commerce to all quarters of the world. I only wish I could congratulate you and the country on the total absence of the foot-and-mouth disease, which is raging fearfully in some parts of the country, and on my side of Bedfordshire. We never shall have an opportunity of seeing these diseases, which are of foreign importation, banished from this country until we have a quarantine for all store stock, and a place of slaughter for fat stock at the port of debarkation. I have told you your Members have passed through a long and laborious session; allow me to give you a short retrospect. The Government introduced an Irish Land Bill, either for good or for evil, but I hope for good. That passed the second reading with the greatest unanimity, but it revolutionized all the rights of property and flung to the winds all the principles of political economy. We had hoped that other measures we had previously passed would soften down the state of society and the asperities of feeling, but outrages prevailed. We saw the mid-day murderer walking away from his victim and not a hand held up to stop his progress. The Government introduced into the House of Commons and Parliament passed a Coercion Bill of no ordinary stringency. The next Bill was for the education of this country. Under the voluntary system, subsidised by Government, we stood second only to Prussia, where a man can say to his neighbour—"Unless you send your child to school I shall send you to gaol." If the success of that measure is equal to all the ability, good temper, and tact with which it was carried through Parliament by the Vice-President of the Council, it will leave nothing to be desired.

Mr. FOWLER (Henlow) reviewed the progress of the Bedfordshire Agricultural Society for the last 70 years, and the benefits it had produced not only for agriculture, but for agricultural labourers. Amongst these he enumerated the manufacture of iron ploughs at Bedford, and the impulse given thereby to agriculture.

Mr. HARVEY said: We have just heard from the gallant Colonel that an Education Bill has been passed which will render it compulsory that the labouring classes should be in future educated. That makes the question very interesting to us, and I will not attempt to inquire into the merits of that Bill. But there is one question we must all consider. Before we meet again this time next year every parish in the county will be obliged by that Act to provide education for its poor. I hope many have already provided it. I strongly recommend those parishes which have not provided it to do so before the term of grace expires, and I am quite sure it will be far more pleasant that it should be done by voluntary subscription than by rate. Landlords and agriculturists have too much of rates. It is a disgrace that the maintenance of the poor of England should be thrown entirely on the real property of the country. A great wit and foreign statesman was apt to talk of our "ignorant impatience of taxation;" but I think we, the owners of property, are guilty of ignorant patience when a man of £21,000 a year of personal property is not called upon to contribute a halfpenny. I wish for one moment to consider what will be the effect of

this Education Bill, which is at once to make the poor man contented with his lot, sober and honest, and to improve him in every way. I hope it will make him content with his lot, but we shall be rash if we take it for granted. Although education may make a man contented, still if he feel that his distress results from causes which no person can control it will make him impatient. It behoves us to remove every possible complaint, and I think it would be wise to do it, for depend upon it now they are possessed of knowledge—which is power,—they will not submit to many things they submitted to before, and one of those is the way in which they are crowded into cottages. I believe this evil is second only to that already intolerable evil drunkenness itself, and that it is one of the greatest causes of drunkenness. The landed interest is in odium through the country on account of this consideration, and some landlords were guilty of the cruelty of pulling down those cottages and throwing the people upon the rates. The Union Rating Act was passed as a remedy, but I don't believe any landlord dare act now in that way. I speak my sentiments without any desire of flattering the poor; it is mainly owing to the improvidence of the poor themselves. If a boy of 19 will go and marry without a house what remedy can there be? I hope this measure of education will show them that they should exercise some control and not marry until some means of providing for a family are prepared. If a man is lodged like a hog he cannot be expected to live like a Christian, and I hope every man with means will increase cottage accommodation to meet that crying want, and that the labouring classes will do all they can to make the accommodation go as far as possible, and not incur the responsibilities of a family without having a place to put their heads under. I never in the course of my life, which has been passed amongst the labourers, recollect so much distress in the summer as this year. I had twenty men come to me at once for a day's work saying they were starving. It arose from the extraordinary drought, but also in a great extent from the perfection to which our agricultural implements have been brought. Therefore I think those gentlemen who have been enabled to cultivate their fields at much less expense owing to these machines should assist their poorer neighbours when distress arises. One means is emigration, and for £4 they may send a man to Canada, where he may find plenty of work. It would be a great benefit to themselves and to the ratepayers. I think on the whole the labourers bear their privations well, but I fear next winter will be a bad one, and we should do as much as we can, consistently with our means, to assist them.

The Rev. J. W. C. CAMPION, dissented from the view of Mr. Harvey as to the result of employment of machinery, his experience being that machinery rather enabled agriculturists to employ labour than otherwise. The man who employed machinery and cultivated his land well did a good service to his country and was a great benefactor to the neighbourhood in which he resided.

Mr. W. PIKE said: We have been told that the legislature has passed a measure of Irish Tenant-Right, but not one word have I heard of English Tenant-Right. I have heard a good deal spoken about the labourers, but how can you expect they will have good places and advanced wages, or that we can employ the splendid engines of Messrs. Howard, without a system of Tenant-Right? It has been my misfortune to take one or two farms out of condition, but thank goodness I am under a lease; that is my protection. How many farmers on my right and left have any protection? With a system of Tenant-Right we can stir up the soil deeper, and have a more perfect cultivation, and then we can employ labourers at a better price. We have held many meetings with a view to get a voice in the county expenditure, but we have not succeeded. The legislature has given us an opportunity of having our voice felt in education, but let us have a voice in the expenditure of the money we pay in rates, and we shall be satisfied.

Mr. C. HOWARD said, as to the Game Laws, he considered that if the sentiments uttered to-night obtained with all landlords we should hear very little about the game question. When we found men driven to their graves by this system, when those who were intimately connected with Agricultural Benevolent Institutions traced the downfall of many persons to that system, they could not expect an Agricultural Society to sit quietly by and ignore those facts. The sooner the question was settled the better for all classes. He was happy

to say he had the shooting over his own farm, a privilege which every man in this country ought and will have in conjunction with his landlord.

DORSETSHIRE.

At Cranborne Lord ASHLEY said: With regard to farming, he thanked God that it was something more than the radicals in some of the large towns would have them believe—a mere commercial transaction between landlord and tenant. If there was not mutual accommodation, life in the country would be intolerable. If landlord and tenant passed each other without a hearty grip of the hand, or a cheery 'How are you?' he thought they might as well live in Kamshatka."

ESSEX.

At Dunmow, Lord EUSTACE CECIL, the chairman, said: I know perfectly well that there are many earnest philanthropic gentlemen, of whom I may mention Canon Girdlestone as the head, who are of opinion that the position of the labourer in this country is disgraceful, and very little better than that of the serfs of feudal times. ["No, no," and a voice: "It shows he knows no better"] (laughter). I beg leave entirely to differ with those gentlemen, for I believe that whatever evils they complain of, and perhaps justly complain of, they are partial and local; and that on the whole the English labourer is better paid, better fed, better looked after, and better educated than any other labouring population in Europe. Now why do I say this? Certainly not only from my own experience—although I have had the good fortune to travel freely abroad, and have had an opportunity of hearing and seeing something of the labouring classes in other countries—but I speak from official information. I speak from books which have lately been published, which all may read. I mean the reports of the Inclosure Commissioners and the reports of the commissioners instructed to inquire into the employment of women and children in agriculture. And what do they show? Why they show this, that in place of the labourers' wage diminishing it is constantly on the increase. I find that many labourers throughout the kingdom are earning as much as £100 a year; I find that another very large class of labourers are earning as much as £50 a year; and I find, better than all, that many of the peasantry of this country have got deposits in the savings banks. Then I come to what has been very often spoken about, deficient cottage accommodation; and on that head they say that the cottage accommodation, although faulty in some places, and requiring improvement, is on the whole very much improved during the last thirty years. And we see further that allotments, though not universally, still by public opinion are held to be necessary. And I look forward to the time—not to any very distant time—when every labourer throughout the kingdom will have a bit of land which he can call his own, practically call his own, and cultivate and take care of. Well, then, when we come to the question of education, I think no gentleman in this room can doubt that the prospects of education were considerably brightening even before the Act of last session was passed; but now I am greatly in hopes that through the exertions of all classes—of the landed gentry as well as the tenant farmers—that there will be schools open to which every labourer can send his children, and which will give a cheap, ready, and good education to every poor child. I think all this is very satisfactory—[A voice, "I don't," and a laugh]—and I think it is very much due to such societies as this, because I believe they have been instrumental in awaking public opinion on the subject. But, gentlemen, I might be deceiving myself, and deceiving you too, if I were to suppose or to say for one moment that all had been done that should be done, and that we had arrived at the millennium of perfection. Much undoubtedly has been done, but I believe much also remains to be done. Following in the excellent footsteps of my worthy colleague, Sir Henry Selwin Ibbetson, who has devoted a great deal of attention to the matter, more especially to the principles of the act which he succeeded in passing last year and the year before, I think it would be a very great good if the number of public-houses throughout the country were diminished, and if the disgraceful practice—for I can call it by no other name—the disgraceful practice of adulteration were put a stop to. In my own humble way I have laboured to that end in parliament. I do not take any credit to myself in the least, but I have at last succeeded in obtaining from the government an assurance that

of a certainty they will consider the subject. And I have every hope, from what has fallen very lately in some remarks the Home Secretary made to his constituents in Scotland, that something is likely to be done in the licensing law, which he will have to introduce at the beginning of next session. Be that as it may, I am convinced—whether I fail in drawing public attention to it, and in securing something being done in the matter or not—that the question will have to be taken up by a more eloquent voice than my own. Turning again to the commission, whose reports I have previously alluded to, I think the commissioners recommend, and I believe it would be a very good thing, that in all districts where wages are partly paid in beer or cider that they should be wholly paid in money. I believe it would be for the benefit of the farmers as well as of the labourer, and I have no doubt that before long it will become the universal custom. I would add that I think something might be done in the way of technical education. That word technical is a difficult word. It is not always understood, particularly when used in reference to labourers. But by technical education I mean education in a particular calling to which they are born. I think it would be a very good thing if boys belonging to the labouring classes were brought up to understand the different branches of their trade—if they were taught to become good carters, good shepherds, and good ploughmen—early in life. Then, I think, a very great good might be initiated—I mean the classification of labourers. I am convinced that if something of this sort were carried out the farmers would be protected, and the labourers would receive better wages. The farmer would be protected because he would not be obliged to give the same wages to good and bad labourers alike, which, I believe, he is obliged to do now, and at the same time there would be a stimulus given to the labourer if he found himself classified with a bad class, and only receiving the wages of that class, to try, by sobriety, industry, and good conduct to reach a higher grade.

At Castle Hedingham, Mr. ROUND, M.P., said: I believe I am right in saying that the entire income derived from all sorts of property in this country is £650,000,000, and that the rateable value of property which is assessed is only £100,000,000. I believe that the amount which is collected from that £100,000,000 for local taxation is £16,000,000, of which £11,000,000 are raised under the name of the poor-rate, and of that £11,000,000 only £7,000,000 are actually expended in the relief of the poor. So we see that only one-sixth of the whole property of the United Kingdom is called upon to contribute towards that which is now paid for out of the local rates. This was never contemplated when the Poor Law came into operation. The words of the act were that every inhabitant should contribute to the relief of the poor according to his ability. The present system presses very heavily upon the holders and occupiers of land. However you re-distribute taxation it must mainly fall upon the rich, and it is quite right that it should do so—but the present system falls so heavily upon the poor occupiers as to furnish one great reason why we should interest ourselves in obtaining a redistribution. One of the evil effects of the present system is that it discourages the investment of capital in agriculture, because it involves a tax upon outlay in improvements; and another of its evil effects is that it discourages the building and improvement of cottages about the farms, for no capitalist cares to invest his money in building cottages if the returns for such expenditure are less than he would get from other investments, because of the heaviness of local rates, and the result of this is that labourers are over-crowded, they are driven into the towns, and have to live in a most uncomfortable and improper manner very often.

Colonel BRISE, M.P., was sorry he had no good news for the large number of earnest malt-tax repealers he saw before him. At the commencement of the session he thought the Chancellor of the Exchequer was inclined to listen to their just demands, and that there was certainly some chance of getting a portion of the malt-tax repealed, but the only concession made had been a permission to farmers to sprout their own barley, a permission which was hampered with so many restrictions as to make it perfectly useless. So strongly did he feel that these restrictions would invalidate the gift that he moved an amendment against them, and they had a much better division than he expected, only being beaten by a small majority. The great question of the day was local taxation.

Mr. Goschen, at the commencement of the session, moved for a committee on the Local Taxation Bill. They thought at any rate that that committee would include the area of taxation, and inquire how far the burdens had increased and how far the general property of the country had increased, but when they got into committee they were told all they were to inquire into was how far it was expedient that rates should be divided between owners and occupiers, and, if they were so divided, what changes in the administration of the rates were necessary. The President of the Poor-law Board, chairman of the committee, whose experience was entirely gained in a metropolitan and urban constituency, was of opinion that the Poor-law was not administered in as efficient a manner as it ought to be by the occupiers who at present constituted the Boards of Guardians, and that the owners were not sufficiently interested to stir themselves up as they ought, and he proposed to put a great portion of the rates directly upon the owners. He (Col. Brise) ventured to say that in Essex the owners of property were perfectly satisfied with the administration of the occupiers on the Boards of Guardians, and that it was impossible for the owners to be more economical. When he said this there was somewhat of an incredulous smile came over the committee, as much as to say, "Oh, this is all political clap-trap—Essex is an exceptional county." He believed, however, that the owners present at this meeting would bear him out in what he said. Well, the committee finished their labours, and the chairman drew up an elaborate report; but the committee—a committee appointed by the Government of the day—declined to agree to the report of the President of the Poor-law Board. They, however, permitted it to be read a first time, and then agreed to consider the question by resolutions. Their first resolution was to the effect that it was contrary to sound policy that all charges should be placed on the occupiers; the second, that it was advisable there should be some division of the rates between the owners and the occupiers; the last, that it was inadvisable that there should be any legislation upon the subject until there had been a still further inquiry into the question, and not merely upon that one branch of it to which they had been virtually committed. This left the matter very open. He (Colonel Brise) was not prepared to say that he did not agree with the first of these resolutions. He thought, for instance, that the county rate might be placed on the owner, and there were rates—such as the education rate—which possibly might be shared between the owner and occupier. He believed the reason they had heard so little lately of the agitation for Financial Boards was, that it had been discovered that the county expenditure was a very small portion of the expenditure in rates. In Essex the county expenditure was only something like 3d. in the pound. In his own parish the rates, including the voluntary church-rate, were something like 4s. in the pound, and therefore the occupiers had control of 3s. 9d. out of that 4s. at the present moment. He believed that chambers of agriculture and the landed interest generally would have very little effect upon the Government and the House of Commons in this matter, unless they got the cordial co-operation of the liberal members of the towns, who, with one or two exceptions, had taken very little interest in it. The value of the rateable property in this country was something like £120,000,000. Out of that £70,000,000 was house property, and only £55,000,000 was connected with the landed interest. It was of no use, therefore, the representatives of the £55,000,000 agitating alone. The representatives of trade complained that they had a grievance quite as hard, viz., that they should be called to pay income-tax for precarious incomes at the same rate as incomes on landed estates. He (Col. Brise) did not mean to say but that there was some hardship in this, and if the landed interest could get the mercantile interest to co-operate in getting relief from the increasing charges of local taxation they would do well to assist the mercantile interest to get rid of this grievance. Mr. Gladstone cautioned them to take care lest it might turn out that real estate after all was not unfairly taxed in proportion to other property, but all they asked was a full and fair inquiry, and they would not be content with anything less. Now there could be no doubt that it would be almost impracticable to tax the fund holder in this country. He was not prepared for a national rate, and he did not see his way to any direct taxation on personal property, but their grievances were great and increasing every day. The owners of property had no objection to maintain

their obligations for the support of the poor, but they objected to increasing charges being thrust upon them, not for local but for national purposes. Their expenses in this county for the poor's-rate were something like £200,000 a-year; of that £200,000, not less than £60,000, or nearly one-third, was for the relief of vagrants, and lunatics, and for salaries. The poor-rate for the whole country was between £11,000,000 and £12,000,000 a-year. What did the Government give them in aid of these expenses? Not half a million. If Government gave them the expense of vagrants, lunatics, salaries, and charges of that kind for national objects, that would be £3,000,000 at least per year. He wanted to get that £3,000,000, and he must have a still further grant for police, militia, and other expenses of that kind.

HERTFORDSHIRE.

At Tring, Mr. TREADWELL said: With respect to labourers' cottages, they ought to be on the farms; and not only so, but in the hands of the farmers. And then the labourers would be as good as those Mr. Bailey Denton sent for. He thought that about the food and the beer was a point stretched rather too far; nothing did a man so much good as a drop of good beer. He thought if many of the useless trees and abominable spinneys on farms were grubbed up during the winter season, and nice cottages and gardens put in their places, it would be a great advantage to society. A friend of his said, why didn't more compete for prizes? It did good to compete. It made a man look about to see what he should do, and what others were doing; and he knew that if he laid out £10 to compete for a cup for the farmer's prize, he saved £20 by it. But the great drawback to farm prizes were the confounded broad hedges and the nasty spreading trees. With regard to the cattle disease and the foreign stock, Mr. Forster had been kept back from doing what he ought to have done long ago, but he was doing about right now. They were told there had been sheep brought in lately infected with small-pox. These sheep had been allowed to go all over the country, and how could they stop it in future but by having the sheep killed at the waterside? Why not have them killed at Odam's wharf, where there was ample space? And if all foreign cattle were killed at the landing-place there would be a constant flow of meat into the country as well as into London. What he did care about was the safety of our home flocks and herds. He believed they were improving in farming, when they saw 200 acres of roots on one farm all admirably managed by the farmer's sons; and when they saw roots of such size as they had seen to-day, they must admit it did the growers great credit: they were first-rate. But in sowing for roots, they must take care and not plant too wide. Then they must have their land clean; no man should have foul land. Then the ploughing must be well done; the ridge thrown well up; it was the ridge to-day which got the first prize for ploughing.

Mr. W. BROWN said he would now trouble them with one or two remarks, as they had on previous years listened to his observations. One was, pure water *versus* dirty water. On this topic Mr. Disraeli had spoken at Aylesbury—he advocated the necessity of storing up water; and, in such a season as they had just had, and on the hills, it was a matter of serious consequence. Mr. Disraeli thought it could be done by reservoirs, or open ponds; but he was not so much an advocate for these as for close tanks. He knew several instances where these had proved very beneficial, and were not too expensive. His brother had paid large sums to take water in carts to his cattle; but it occurred to him he had seen water washing down his land; so he had a reservoir made twenty feet deep and fifteen feet diameter, and all this season he had not to cart one barrel of water. Mr. Lowades, of the Bury, Chesham, had tanks made on his up-hill farm, which takes the water from his roofs, and they answer perfectly well. The tanks had no bricks except on the dome. It therefore behoved everyone to store up water by these means for the sake of those about him.

KENT.

At Tunbridge Wells, Sir WALTER STIRLING regretted the absence of many of their representatives, who might possibly enlighten them on the subject of contagious diseases in cattle, on Tenant-Right, and even the use of horse-chestnuts as food for stock.

Mr. GREGORY, M.P., said: The great questions of local taxation and financial reform were those which would come before the House, and for which they (the members) would be

found at their posts, ready to do that which their constituents might consider for their benefit, and which they themselves might think most conducive to it.

LINCOLNSHIRE.

At Long Sutton Mr. W. E. WELBY, M.P., had been challenged to say a few words on the Education Bill. The effect of that Act would be shown in the future. Every parish in the kingdom must provide sufficient and suitable schooling for the children of the poor. That might be provided, as it hitherto had been, by school fees and voluntary liberality, supplemented by Government grants. He thought the voluntary aid for schools would be found preferable, because, firstly, they gave greater liberty of religious teaching. Secondly, if they had Government interference, there would be the expenses of the maintenance of the School Board to be provided out of the rates. Thirdly, under the School Boards the attendance of children would be compulsory, and he knew there was a strong feeling against that; he had a very strong feeling against it himself. He advised them to meet in vestry and to calculate as nearly as they could what schooling would be required, and make such provision for it as should secure the keeping of the management of the schools in their own hands, and as far as possible keeping clear of Government interference. There were one or two matters connected with agriculture during last season which he would refer to. They were enabled to procure the exemption of farm horses from taxation, even though they were employed for drawing material for the highways. It was never intended, he was sure, by the Government to pass such a clause, but they were now in a better position than they were before. Until recently they were liable to be taxed, though the law was not put into force, but now it had been distinctly laid down that horses used in that capacity should not be taxed. The permission to steep barley for feeding cattle was a cession which would be variously estimated. One great feature of the session was the overwhelming majorities with which measures had been passed—not only the Education Act but the Irish Land Bill. It showed that any Government which had the courage and ability to produce good measures, might reckon upon support, and bear down factious and interested opposition from any quarter, carrying them to a successful issue.

At Torksey, Colonel AMCOTTS, M.P., the chairman, said They did not generally consider those books called "blue books," in which were recorded the proceedings of Parliamentary committees, light reading, neither did they look at them exactly in the light of novels. Nevertheless they were interesting and of great value to those who took an interest in the subject to which they related. And when he (the chairman) alluded to the particular blue book which treated of the employment of women and children in agriculture, they would agree with him that it treated of a subject of great interest to every one. It was surprising, on reading the evidence, to find how different was the payment for labour in different parts of England. Upon the whole, the labouring classes in the North carried off the palm for well-being, with one or two exceptions; while those of the South and some of the South-Western counties appeared to be the worst off. And he must say that it was lamentable and painful, on reading the copies of the evidence of gentlemen sent by the committee to inquire into these things, to see a county pointed out for lowness of wages, and for the badness of its cottages. He trusted that they would not unduly flatter themselves—that they would not unduly glorify themselves—when he said, not for himself only, but for a great many landlords, and on the part of a great many farmers, that Lincolnshire stood pre-eminent—it having been called the labourers' paradise—for the excellent wages labourers received as a rule. Their cottages, too, were not pointed at as in some counties. He did not mean to say that there was not much yet to be done. Agriculture, as they all knew, was an experimental science, and a progressive science. They saw no limit to the production brought about by successful agriculture. But he was sure he might say this—that the improvement in farming, and in labourers' cottages generally in Lincolnshire, had been considerable in his lifetime. The consciences of landlords had been touched in regard to cottage building. It was an expensive luxury, but few things gave greater pleasure than building good cottages for good labourers. Thoroughly to appreciate the reports, they should take the book and scan it over for themselves, and they would see

things which, as agriculturists, would surprise them. With regard to the employment of women and children in agriculture, the work was said to be healthy, and there were no complaints against it from the people engaged in it. There was another question which had been largely taken up, and that was the difficult question as to how they should educate the children of the labouring-classes. He must confess that, after reading through a mass of the evidence published, he felt more puzzled than enough, and what to recommend he scarcely knew. That the children should be brought up with a reasonable education all would agree, and if they could get the parents to properly appreciate the value of education, they would take care that their children received it. He thought it was impossible to secure a high standard of education amongst the labouring-classes. Amongst those far above them they knew how few cultivated education and reading for knowledge and reading-sake. Be that as it might, if the parents could be enlisted in the cause of education—if they could be shown that their children, by being educated, could get higher wages, and that they would have a better chance of making their way in the world, there would be no difficulty in educating every child. But it should be remembered that there were two educations—the education of the head, and the education of the hands; and both must constantly be going on at the same time, up to a certain age. The children of labourers must be taught to plough and to sow. It was not merely head education—reading and writing—that was needed; the other education, that of the hands, ought not to be lost sight of, for upon that mainly their future welfare depended. There came before the House of Commons the question as to whether there should be compulsory education, and, wisely, he thought, the compulsory clause was struck out; it therefore entirely depended upon the people of a district whether schools should be established or kept up. He saw the greatest difficulty about the compulsory clause, and when Mr. Welby (one of the members for the southern division of this county) brought forward a motion to the effect that it be struck out, Mr. Forster, on the part of the Government, very wisely, as he (Colonel Amcotts) thought, accepted the proposal, and left education optional.

NORFOLK.

At Docking, Sir WILLOUGHBY JONES, speaking of America, which he had lately visited, said the effect of the immense growth of corn in the West had been to entirely stop wheat growing in the New England States. He had travelled 200 miles without seeing 20 acres of wheat; it was far cheaper to buy it from the West than to grow it themselves. The Western States had gone into dairy farming, and grew a great quantity of Indian corn for forage, and also of sorghum—the sugar grass (*Molens saccharatus*)—which grew eight feet high, and was a beautiful crop, also a great deal of beetroot. He was also struck by the way in which everybody seemed to go into fruit-growing. The quantity of apple-trees, and the land under melons and tomatoes, and peach orchards, and all kinds of things. The consumption of fruit in the United States was large to a degree we could not form a notion of—everybody seemed to be eating fruit all day, and the quantities sold in the large towns were immense. He was sure the capabilities of consuming fruit were not half developed in England, and we might take a leaf out of the American book in that respect. An apple-tree cost nothing; and if we grew three or four times the number of apples we had now—if every farmhouse had a good bunch of apple-trees and every cottage an apple-tree, the consumption would increase, and we should find it pay very well, and the people would have a great treat and good wholesome fruit. [LORD LEICESTER: Is not the climate more suitable?] He thought it was. The labourer going from England to America, would find certainly a very great increase in his wages, but he would find it necessary to make a few set-offs. He did not mean to say that he would not be better off there than here, but the advantages were not completely on one side as he might at first be disposed to imagine. He would find a climate in which there were very great extremes of heat in summer and cold in winter, instead of the very moderate climate to which he had been used; he would find very heavy taxation, everything except the bread he ate, excessively dear; the prices of clothes and house-rent, and other things, perhaps three or four times what he was accustomed to; all the winter time he would not be able to do any

agricultural labour in consequence of the intense cold and snow, the land being frozen to a great depth; and he would have to learn the salutary lesson of absolute self-reliance, for, if from his wages in summer he did not lay by sufficient to support him in the winter, he would find no poor-law to help him, and he would not have even the resource of begging, for no such thing as a beggar was known in the States, and if a man did beg he would not get anything; and he would be under the disadvantage also of being removed from his family, and all the friends of his childhood, and all those with whom he had been accustomed to be in affectionate and daily intercourse. But for all that he (Sir W.) was not disposed to say on the whole the labourer would not be better off there than here. There was no doubt the very large wages he got and the lessons of self-reliance he learned would raise him in the social scale and make him a better man, and altogether a more reliable man than he is now. He would be better off, but perhaps not exactly in the way he expected. He must be a Jack-of-all-trades, ready to turn his hand to anything, and whilst he got a good day's wages, must be prepared to do a good day's work. In Canada the wages were not so high as in the States, but everything was less expensive—heavy taxation, such as that of the States, did not exist. For his (Sir W.'s) own part, he should be disposed to say that a labouring man going to the province of Ontario and the highly farmed districts of Upper Canada would be, on the whole, about as well off as a man who earned his bread by his arms could be.

At Blofield, Mr. C. S. READ, M.P., said we ought to be thankful to the Ministry for not embroiling us in a great European war. The farmers in the light land districts found that they had a poor crop of corn selling at a miserable price, and a conclusive illustration as to the condition of farmers was to be found in the fact that in one of the Norfolk papers just before Michaelmas there were to be found the advertisements of agricultural sales. Not much was done for farmers in the last session of Parliament. The Chancellor of the Exchequer, with an overflowing revenue, would not ease the malt tax even of the 10 per cent., which was put upon it some years since. Farmers were now selling decent barley at 16s. per coomb, and the 2s. 9d. duty which they had to pay on malt had something to do with the unfair depression which they experienced in barley. The Chancellor of the Exchequer, at his (Mr. Read's) request, took off the few hundred pounds paid on the insurance of cattle through loss by hail; but in order to compensate himself for having done so much for the agricultural interest, he inflicted upon it a gun tax, which would produce, at the expense of agriculturists, the same number of thousands. The Irish Land Bill introduced by the Government embodied many ideas which he (Mr. Read) was able to support; but one thing which he had strenuously opposed was that occupiers, whenever their landlords thought fit to turn them out, should, if they were small tenants, be able to demand seven years' rent. He thought that this would be the end militate against tenants. No injustice could be done to one class at the expense of another class, without its ultimately falling upon the class for whose supposed benefit the injustice was wrought. With the competition which prevailed for land in Ireland, he had no doubt that, if a landlord had to pay such a fine, he would ultimately make his tenants pay it for him through an increase of rent. He (Mr. Read) thought, however, that, whenever a man was ejected from his farm, he should be paid for any actual improvements which he might have effected. He (Mr. Read) had opposed Sir Baldwin Leighton's Police Poaching Bill. A man must know that he had no more right to snare a hare than he had to rob a hen-roost, but ground game, unlike poultry, was generally fed at the expense of other people, either neighbours or tenants, and did not pay for the protection which it enjoyed. Where game existed in large quantities upon a farm it depreciated the assessment, and threw a heavier burthen on the rest of the ratepayers. Under the Act in question game had exceptionally unfair privileges. If a suspicious-looking man were found on a road at five in the morning with a hare in his possession the hare was immediately confiscated and the man was liable to be convicted, but if it were a goose it must be shown that a goose had been lost, and the bird must be identified before the same result would follow.

NORTHAMPTONSHIRE.

At the Peterborough Ploughing Match, Mr. SCORER, one

of the judges, had seen very little of the double-furrow ploughing, but in North Lincolnshire they were about giving prizes, and he should be very glad to see any of them at Alford on the 11th of November. His colleague wished him to say that the ploughing had been done in an excellent manner.

Mr. AMOS, C.E., said: Some of the implement makers might not have been satisfied, but it was not for want of judges. He had met with many men before, but he never saw three men with better elements for their work.

Mr. RANSOME said, this had been the first time in this kingdom where such a large trial of double-furrow ploughs had taken place. The trials had been conducted in a satisfactory manner. In the double-furrow ploughs a large horse saving might be effected, as they could do more by having two ploughs drawn by three horses instead of four, besides the saving of a man.

Mr. LOVE (for Messrs. HOWARD), said, with regard to double-furrow ploughing they had always considered that unless there was a saving of horse-power the sooner the idea of making them was exploded the better. They took a simple dynamometer with them and they invited parties to use one of them with one of their own single against a double plough. Whatever power it takes to draw a single half as much more will be required for a double, the only exception being the soil. It was a question for them to investigate for themselves. It being a matter of soil it would be for them to say whether it would be an advantage to the district or not. It was for the purpose of giving the light land farmer the opportunity of trying it instead of steam. The double-furrow plough might bring them into as good a position as on a strong land farm.

Mr. C. W. GRIFFIN said as farmers they would undoubtedly always buy the best they could get for their money. Meetings of this kind gave them the opportunity of testing one against the other, but they seldom met with land where they had the advantage of doing so. It was a question with him whether the dynamometer was a good test where the land had been steam ploughed. The land was dry and he did not believe it was a fair test. When the ploughs came to be tested on strong clay land they would not stand the test they had done that day.

Mr. W. WHITTING the Chairman, said there had been a great deal of the work done that he did not like, but on the other hand it was compromised because there was some done that he did like. If they would apply to the implement makers for a cheap article they would supply them with it, but if it did not answer the purpose they had better keep their money in their pockets. There were light implements sometimes used for heavy work, and it was impossible for it to be done well. The better implement they got the less it would cost them in the long run.

Mr. BARFORD said one thing on the previous day pleased him amazingly, and that was the way in which the local men did their work. Taking the class as a whole it shamed the maker's class.

Mr. MARTIN said he had no idea that he should have been called upon to speak, and he would therefore remind them that he was not born when boys were sent to school by Act of Parliament. He was glad to see implement makers present and to congratulate them upon the rapid progress they had made during the last few years, but the double-furrow plough was only yet in its infancy. He did not approve of the dynamometer they had had that day as he did not think it was a proper test between the single and double ploughs. This was one of the best meetings of this kind he had ever witnessed, and he thought it would be a good thing if the Royal Show would grant the use of their dynamometer. He thought they would be very glad to lend it, as it was lying idle for four or five years. At these double-furrow ploughs the men worked hard and were doing too much, and the question for them to consider would be whether they should give the men a shilling per day more, or make the plough go easier?

At Daventry, Mr. EMERY, of Drayton Lodge, said many persons asked him how he got such sheep, and as there was some young men present he would give them a hint how to get good sheep. In the first place, they must get good animals, and then they must keep them well. He did not mean that they should pamper them, but they should not let them starve. If they had enough natural food they should not give sheep artificial food, but if they had not enough,

they must. He weaned his lambs early, and he would tell them how he came to do so. He had a lot of lambs doing very bad, although they were on first-rate land, and in April he told his shepherd to take the ewes away, for if the lambs did worse without the ewes than they did with them they must be bad indeed. The lambs did better, and now he never let the lambs be with the ewes after the 10th of May. If he had forty ewes he took them away about ten or twelve at a time, and he always found that the lambs took to the pasture. Before weaning his lambs he generally broke up a little oil-cake, and put it in the troughs, and they ate it, and he gave them a little for a short time after they were weaned, and when lambs became bad in the autumn, he generally thought it was because they had not been properly weaned. Sheep, too, wanted plenty of water. Some years since he did not think much about that, but he should now as soon think of keeping his beasts as his sheep without water.

SHROPSHIRE.

At Ludlow, Col. CORBETT, M.P., was sure they would all agree with him that the past season had been a very trying one to exhibitors of stock of all kinds. The absence of grass must have sharpened every farmer's wits to find out how to keep his stock in sufficient order for the show yard, for it was a *sine quâ non* that stock should not be fed with artificial food, and so the difficulty became all the greater. The result, however, showed that they were able to meet any difficulties of the sort that might arise, for he thought that a better show for a small district could hardly be expected, and at few places could it possibly be so good as it had been there that day. Of course that was the centre of a district where some of the best Herefords in the kingdom were bred, than which there was no better class of stock to be seen anywhere, for they had kept their place at the Oxford show and everywhere else. The cattle shown that day were excellent. They were of a good useful character, and good framed, and showed great "kindness" in handling. The fat ones, he thought, were particularly good, and the breeding stock, being not over-burdened with fat, were such as would bring a man a calf every year, and not one in three years. The malt tax had come before the House during the early part of the session; but nothing came of it more than usual. The Chancellor of the Exchequer was not able to make up the £8,000,000 which would be lost to the Government by the repeal of the tax; but he did make one concession, which was to allow farmers to sprout their own barley under certain conditions. It was a much vexed question as to what the advantage of this would be to the farmer. If it was any good, farmers would now have an opportunity of trying it; but the concession was hampered by one condition that must reduce the value of it considerably. It was that no barley should be so sprouted within a quarter of a mile off a malt house, and he thought there were few places, therefore, where farmers would be able to avail themselves of the provisions of the Act. The question of local taxation had also been before the House. Sir Massey Lopes had taken the matter up in a very able way, the question had been discussed by the Chamber of Agriculture, and he believed they might look forward to a satisfactory solution of the question at no very distant day. There was the question of turnpike gates. ("Pull them all down.") When he was canvassing the county a farmer spoke to him upon that subject, and objected to the abolition of toll-gates on the ground that if his cattle or sheep got out of the field and strayed, they were stopped at the gate, and so he had not so far to go to find them as he otherwise would; so that everybody looked at the matter for his own point of view. For himself he agreed with Mr. Mansell, who said "Pull them all down"; but he (Col. Corbett) certainly did not think it right that the debts, and all, of the trusts, should be thrown upon the ratepayers. He was glad to see that those present were of the opinion they had expressed, but the difficulty to be got over was to decide who was to be saddled with the debt. The roads are not at present what they used to be—the great arteries of the traffic of the country, the railways took a great deal of the traffic. He thought the whole question should be looked into and well adjusted. The new gun tax was another matter we should refer to. He did not know what view was taken of that subject by the holders of land, but they had a great fight in the House to carry Mr. Read's amendment to allow occupiers to carry a gun to kill birds and vermin upon their own land. The Government opposed it, but they had carried it by

a very comfortable division, and it would, he believed, prevent a good deal of annoyance that might be felt. Although the tax might do some good in the neighbourhood of towns, he thought it remained to be seen whether or not it would be an inconvenient and vexatious tax to people living in the country.

At Forden, Colonel CORBETT said that Parliament had given to farmers the power to half-sprout their barley for feeding purposes. He did not know what they might think of it, but he was speaking to a farmer recently who said that this year he thought the privilege of sprouting barley would be of great service, on account of the failure of many of the green crops, as the sprouted barley was a valuable change to so much dry corn. The one condition against it, and that would interfere with its usefulness in many places, was that it must not be sprouted within a quarter of a mile of any malthouse. In consequence of this condition many farmers can make little use of it in the neighbourhood of villages, where there was generally one or two malthouses. The progress of farming was due in a large measure to the manufacturers of agricultural implements, who had adopted to practical use every scientific improvement. Since the year 1846, when he commenced farming, great improvements had been effected in agriculture and agricultural implements by men possessing scientific knowledge, and it had pushed on the bucolic mind amazingly. It had a similar effect to putting a slow ploughman behind two fast horses; if he intends to plough well he must step with them. He must congratulate them on the good work done by the champion ploughmen, the farmers' sons, and the other ploughmen, which was all very creditable. The hedging was uncommonly well done, and he flattered himself that he knew a bit about "hedging." He had named the three first in the Severn Valley Club, and to-day he had "spotted" the winner. Fairplay for those who allotted the work to be done, for they must be good workmen who could make good-looking hedges out of some of them; but, however, the work was got through and well done. He could see in places that it was hard work to get through the ditches. The furrows in some of the ploughing were done very well, the edges showing up sharp for the harrows. The ploughing of the farmers' sons was very good; and these prizes stimulated in all a healthy competition. The young man must not know only how to hold the plough, but how to set it to do the work required, and therefore they ought to be taught these things by those who do know. In illustration of this he might tell them that one day—in his farming days—he went into the harvest-field, and his man who had loaded the waggon had done it so badly that it upset the waggon. He remonstrated with the man, who said he could do it no better, when he (Col. Corbett) got upon the waggon, and loaded it himself, and it did not fall down either. He wished to tell them that they must know "how to go along," and not "how to come along." They must push the work before them, and not drag it after them. Then as to the American plough. It seemed to be a wonderful plough, and did extraordinary work; and he thought that they could not do better than discuss the merits of that invention at a meeting like that for an hour, as it would be most profitably spent. He thought that plough would become a most useful plough, and be a great addition to their agricultural implements.

At Much Wenlock, Colonel CORBETT, M.P., said the rinderpest was following in the wake of the Prussian army in France, and he believed that unless great diligence and care were exercised by our own Government, we should again have it within our own shores. He hoped that such would not be the case; but what he had stated went to show that the discussion which had taken place at the recent meeting of the Shropshire Chamber of Agriculture was not premature. He was satisfied that if steps were not taken to have proper markets erected at the different ports, that they would be in great peril of being again visited by that frightful scourge. He had great confidence in Mr. Forster, that he would use all vigilance, so long as he was in office, and that such care would be taken that they would not be likely to have a recurrence of that disease. But the Metropolitan Market was not yet erected—it was not settled where it was to be; and he did think it behoved all of them as agriculturists, and all consumers as well—for all their interests were in the well-being of agriculture—to keep watchful eye upon the Government, and see that those markets were made with as little delay as possi-

ble, and that no diseased animal should move out of them when they were erected. There were not many other subjects of interest that he need bring before them, but there was one subject that they all took great interest in, and which had been adverted to when the militia was mentioned—he meant local taxation. It was a matter that pinched all of them in the rural districts especially. It never could be right or just that eighty per cent. of the local taxation of the country should be such that the ratepayers, or their representatives, had no power of saying whether it should be spent or not, for out of every £100, £80 was paid by order of the central Government for different items over which the ratepayers has no control whatever. And what were those items? One of them was the expenses of militia depôts. But surely the militia was as much for the national good as the regular army, and if so, why should it not, like the regular army, be supported solely out of the national funds? Then there were the lunatic asylums, which, although they partook more of a local character than the militia, still, he thought, ought to be supported by the funds of the nation at large. And when they considered the manner in which the rates were at present levied, it seemed to him that such item of expenditure ought in fairness to come out of the general funds of the country. He was well aware that there was great difficulty in levying a rate equitably over the whole of the country, but he certainly thought it unfair that any parish should be called upon to pay a rate for those items which belonged more to the nation at large than to any particular parish. Their representatives had not yet been able to do much for them with regard to the malt tax, but one point had been gained—that of a privilege to farmers to sprout barley for the feeding of cattle. A friend of his had told him that owing to the scarcity of succulent food this year he intended to try sprouted barley, but even with that there was one drawback, which was that those who were within a quarter of a mile from any malt-house could not take advantage of it, and very few he presumed would, in some parts of the country, be able to avail themselves of the privilege.

Mr. A. H. BROWN, M.P., said the question of local taxation was one in which he had taken a great deal of interest. They were all aware probably that a committee of the House of Commons had sat upon the subject that year. He was not a member of that committee, and no doubt many present would have read what had been done by them, but he thought he might recapitulate some of the points which had been arrived at. He would first refer to the manner in which this question affected farmers. To make himself understood he would take a case. He, for instance, wished to rent a farm. He inquired from the landlord what was the rent, inspected the farm, and saw how it was situated as to a market town. Now if he thought the rent of that farm, with the taxes, was such that he could recoup himself, he should conclude the bargain; but if the rates were higher than he could afford, he should not do so unless the rent was proportionately low. From this it would be seen that the rates affected the rent a landlord could get for his farm, and they fell therefore to a certain extent upon the owner of the property. That was the first bearing of the case. Then it might so happen that he took a farm on which the rates were not high; but that the rates, as they seemed invariably to do in this country, rose, and the whole of his previous calculations were upset. The committee seemed to be of the opinion that this increase of taxation should be divided between owners and occupiers, so that the latter should not have to pay the whole of it out of his own pocket. In addition to that part of the question there was the other part that referred to the incidence of the local rates, whether they should fall upon real or personal property, or both, and he hoped that matter would be taken into consideration by the committee in the ensuing year.

Mr. RALPH BENSON, the chairman, said that grounds for the congratulation of the agriculturist were this year wanting, for he feared that this year would be an unprofitable one to many of them. The drought of the past summer had bleached their pastures and covered their root crops with blight and fly, to so great an extent that it would be a matter of great difficulty to provide food for their cattle and sheep. He had, it was true, been told that it had been a capital time for cleaning the stubbles, and he hoped they would be thankful for small mercies and find that their stubbles were perfectly clean. He had attended some of the discussions and he really did not see

why they should not have what he believed would be a great attraction, a bit of dinner first and the discussion afterwards.

Mr. TREVOR said he had, it was true, been beaten for fences, but he thought he had been beaten by a bit of stratagem. If his late agents had met him with the same liberality that Mr. Bigge had done, his fences would have been equal to any in the kingdom. With respect to the root crop, he managed it upon the old fashion system, and he should continue to do so until he was convinced that the new system was better than the old one. He employed a great many implements, and there was one particularly, an old fashion one, that was a great favourite of his. It was the plough. He always ploughed his land up two or three times for turnips. His friends told him that by so doing he lost moisture. Well, he admitted that his root crop did, some seasons, grow "patchy," but he had a greater weight per acre than Mr. Acton, and he thought he could even beat Mr. Davies in that respect. If he lost moisture at first, the deep cultivation retained moisture afterwards. If they would look around the country they would see, also, that his stubbles were cleaner than under the other system. One serious matter for them to look to was the supply of water, which he thought was getting very short—a consequence, as he believed, of the increased drainage of the land. He thought every gentleman who had an estate should turn his attention to that matter.

SOMERSETSHIRE.

At Shepton Mallet, Mr. GENGE ANDREWS said: Major Paget wished to know their opinion of the Derbyshire cheese which he had set before them at dinner that day. Now it so happened that he (Mr. Andrews) was himself perhaps one of the greatest cheese growers in Somerset, having kept on his farm two hundred cows. Therefore he thought he ought to be a judge of cheese, and at his end of the table there were many friends who were cheese-makers and also excellent judges of cheese. Well, having tasted the cheese set before them, and which the hon. gentleman had so kindly procured for their opinion, they all said that Derbyshire cheese was a very good cheese, but it was not so good as Somersetshire cheese. He was in London yesterday, and he happened to fall in with the chairman of the Local Taxation Association in the county of Warwick, and also with a Derbyshire gentleman, and the conversation turned upon cheese. The Warwickshire gentleman seemed to have a great understanding of cheese and the current prices, and he gathered from him that the price of cheese in Warwickshire was very much superior to the price in Somersetshire, and he also believed it was very much the same in Derbyshire. Now he just gave that information on this occasion for the advantage of the cheese dealer in Somerset. We had lately a very strong north-east wind; and they might depend upon it that if the price went up in Warwick and Derby the price would go up in Somerset. It seemed that nothing decent could at the present time be bought in the county of Warwick for less than 80s. per cwt. (A voice: What weight?—112 lbs.?). He had a discussion on different weights in the county, and he meant 80s. for a Somersetshire hundred-weight. And he hoped that gentlemen here would not throw away their best cheese for less than 80s. per cwt. There was a feeling, and they had seen it publicly expressed in many of the prints of large circulation, that it would be better for this country that we should have a paid, rather than an unpaid, magistracy. He totally dissented from that doctrine, and he believed it would be an evil day for England when the administration of county affairs was in the hands of paid officials. Nevertheless, he was sorry to say he had heard recently, even among their own class—the agricultural class, who supported the county magistracy, as a rule, in every respect—he had heard a feeling expressed that there was not that sympathy and cordial union between the county magistrates and the class by whom they were supported which he hoped, and which we ought, to see. He was sorry to hear such expressions of feelings; he regretted it exceedingly. He hoped that feeling would not increase, and that the sympathy and support of the magistrates of the county would on all occasions go with the feelings and interests of the classes by whom they were surrounded. They knew that the magistracy was drawn very largely from among the landed proprietors; and it had been said, without his consent, that he (Mr. Andrews) would say something here to-day on a question in which the company all felt very great interest—he meant all

who were occupiers, not only in the county, but to a very large extent in the towns; and that question was an unjust charge with respect to the poor-rate assessment on those who owned houses and lands—what was known and described as "real property." It was not his intention to address to them any set speech on the subject, and it was the more unnecessary because the subject was well known and understood in every parish in the county—by every guardian, every clergyman, every magistrate. Or, if they did not understand it, it was their own fault. It was well known to those present that he (the speaker) had taken some trouble to organize a county association in this county, and that one of the most important questions which they had undertaken was that of a reform of the Poor-rate assessment in its bearings. Now, what was the question, simply and shortly, which the association had put before the public? It was simply this: That they attacked an exemption—and everybody knew what an exemption was. In every parish all the real property was rated. Now, what would they say if two-thirds of the property in any parish or town was exempted from the Poor-rate—a tax of £11,000,000? Why, they would say, "We will appeal to the Assessment Committee, and we will have it assessed." Now all they had to say with regard to the assessment of personal property was this: that if it was just that it should continue to be exempted, let it be so; but if it was unjust, let it be remedied. Now in proposing this toast of the Magistrates, he should venture to say that they had not that sympathy and support from the great body of magistrates in this County Association, which had been founded immediately by farmers, which they had a right to expect. There were on the list of Somerset county magistrates 250 names, and he thought on the list of the County Association they had not more than perhaps 20. They had every one of their county members on that list. They had the Marquis of Bath on that list—they had the Lord-Lieutenant on that list—they had the Hon. Mr. Chichester Fortescue, Chief Secretary for Ireland, on that list—they had the late Chairman of Quarter Sessions, Sir William Miles—and there were many others, a few others at least, that he might name. But where were the mass of the magistrates that they did not come forward to support their county members and their Lord-Lieutenant by following their example in this matter? He would not be surpassed in respect to the magistrates by any man in Somerset; he respected them—he admired them; but he could not understand the man who said he could not understand a simple question put in this way: That a man having £10,000 a-year from a mortgage shall pay no Poor-rates, and that a man receiving 40s. a-year on a house shall pay Poor-rates. Now the county magistrate that said he could not understand that simple question of the rating of the smallest amount of what was called real property, and the non-rating of the largest amount of personal income that they could imagine. A large manufacturer or a large holder of bank stock received his income surely, received his income as quietly and snugly, and very far more so, than any owner of a house. Then why should he not contribute his fair share to the duties which were unquestionably imperial duties? Now the one grand reason which was assumed by many county magistrates who could not see their way quite clear upon the subject—the one grand objection was, that it would do away with local self-government. Now many of those now present were members of Boards of Guardians, and must all know that the limit of their expenditure as Boards of Guardians was set them, not by anything that they could economise, but by the duties which the law charged them with. The law charged them with the relief of the poor, the payment of the police, maintenance of lunatic asylums, registration of voters, registration of births, building bridges, and now they were to have education, and then soon they were to have a million added to the Poor-rate for turnpike-roads. That was called "local self-government!" He should like to know what sort of local self-government turnpike-rates were, or boards of guardians even, or county magistrates? They (the guardians) had their duties laid down, and they were governed by the Poor-law Board in the very smallest items of outlay. The orders of the Poor-law Board were as absolute as any Acts of Parliament. The President of the Poor-law Board hadn't to go to Parliament for the powers which he exercised over boards of guardians: he took it as a matter of course. He was the greatest despot in Britain—he could do what he liked. With regard to the county magistrates, they governed the county ex-

penditure; but we were told that more than 80 per cent. of that expenditure was laid out under laws passed by the Parliament; that they had no power to limit those expenses, the only control they had was over only 12 per cent. of the county expenditure. Now he should like to know what financial boards, county magistrates, or anybody else, were going to save out of the expenditure? And if we were going to have a large extension of the militia, he should like to know the justice of a house in Shepton Mallet being rated to contribute towards the maintenance of militia stores and buildings; which certainly was a matter of national importance. Although they (the association) were not supported in this county as they ought to be, yet he might tell this meeting that the association had been able to set afloat this movement against the unjust assessment of Poor-rate, in every county of England. And further than that, they had induced gentlemen of the House of Commons to take up the question in the House, and it had become, through the movement in this county, one of the most important questions of the day. He trusted the magistrates in the county of Somerset would pay attention to the circular letter of Sir Massey's, and that they would at quarter sessions follow the example which was set by the Devonshire court in moving some motion in favour of the question. He had always held the opinion that if our county magistrates in every county spoke out as they ought to speak on this question, no ministry—Whig, Tory, or Radical—could resist the demand of the county magistracy. Now, if that were so, if his opinion were correct in that respect, we owed it to the county magistrates of England, the Whigs and Tories, the continuance of this abominable and unjust burden on real property. It was on them, and not on the ministry; for you might depend that no ministry would venture for a moment to deny the consideration of this question to the body of the magistrates of the kingdom. For what did we see? We saw that every ministry for the time must take the gauge of the public opinion. And if they knew that the parties who were chiefly interested were satisfied to rest under the burden, it was no part of their duty to take up the question as a Government, and so damage the position of the party to which they belonged. That was the real question. Neither of the two great political parties had yet ventured to touch this question in the House; and until they did, one or the other of them, venture to touch it, you might depend upon it no great effective measures would ever be undertaken by any Government. But he believed that public opinion would go on and press them on. He would instance the case of an association which had been established in London, with the present Lord Mayor, Mr. Besley, at the head of it, for the readjustment of the poor-rate question, and for a national Poor-rate. So strongly did he feel with reference to the movement in London, that he had written to Mr. Besley to tell him he should be very glad to become a member of that association for the whole being cast upon a Common Fund—a national rate for England and Wales. For it was utterly impossible to regulate the operation of a tax levied on personal property for small areas, such as a union; and you could only properly apportion it for England and Wales.

Colonel NAPIER knew that great fault had been found of late years with regard to the economical management of the finances of this county by the magistrates. He believed they should on some future occasion have other people besides the magistrates to assist in the management of the finances of this county: he for one should certainly not be opposed to it.

Mr. RICHMOND did not enter fully into Mr. Andrews' views, and he did not hear all he said, because he thought the best way to discountenance anything of that kind was to go away and leave the room, which he did; but he heard enough to show him that all that gentleman's conclusions were not correct. He believed the inhabitants of Somerset were fully satisfied with the decisions of the magistrates, and he believed it was consistent for them to be satisfied so long as they had no reason to grumble.

Mr. E. H. CLERK (late President of the Society): He hoped those gentlemen whom he had the pleasure of meeting in this room believed that if he thought any movement was likely to be a great benefit to the agricultural interest, he should be the first to give it a hearty support. But he was not so certain that if this plan of Mr. Genge Andrews', of rating all property both real and personal—which he quite agreed with him was only just and fair—he was not at all convinced that if they were carried out, the agricultural interest would get any very great

benefit. He was one of those who believed that in the present time they were more likely to suffer than to derive benefit; and though he felt that personal property should pay to the support of the poor, he was not certain that if it were rated the agricultural interest would get the benefit. Mr. Genge Andrews had stated that no Government—Whig, Radical, or Tory—had ventured to move in this matter. He (the hon. magistrate) thought they had very good reason for it. It was a very easy thing to talk, but it was very difficult to carry out. Well, and when they came to look at this—and he had looked at it, and the more he looked at it the less he saw his way out of it—they would find the difficulties increase the more they went into detail. It was perfectly true that personal property ought to contribute; for it got more benefit in many instances than real property. But let them take one instance. Let them suppose that a gentleman living in that town had £10,000 a-year in property in London. How would they rate that property, in this union or in London? [Several Voices: "By a national rate."] Very well, just so; he would come to that. They said, "Oh! they would have a national rate." A national rate! They were to pay out of the Consolidated Fund, they meant? Very well, who was to have the management of that fund? They said, local bodies. He said, it would never work; they would never get anyone to put it in the hands of local boards. He thought there were a very large number of classes at present massed together under the poor-rate which might come on the Consolidated Fund with advantage; but that was a very different thing from taking the relief of the poor and putting that on the Consolidated Fund. The militia and the police, he thought, they might put on the Consolidated Fund—those were not poor-rate, they were county-rate. But what did they amount to in the end? Why a mere nothing—when it came to be looked into and examined, it was a mere nothing, a very small point indeed. However, this was not the place to discuss the question, and he had merely endeavoured to show them that there were two sides to it. The only reason that he had for not taking up the question was that he did not see his way out of it.

Major PAGET, M.P., said: Often at these meetings they had had the opportunity of getting the advice of several of the leading cheese dealers of the neighbourhood; and it struck him the ones they rather harped upon was this—that the American cheese was gradually creeping up and improving in description, that it was going to ruin their very heart, and that there was but one safeguard for them to take to ensure themselves against such hurtful opposition, and that was the introduction here of the American system of cheese-making. Now it so happened that in London last year a friend of his in the House of Commons, one of the Derbyshire members, was talking to him (Major Paget) about this American system, and told him that he had just started it in Derbyshire. He let him into a great many details, and as he saw that he (the Major) was greatly interested in the subject, he invited him down to his place in Derbyshire to see it. He took the opportunity; and for fear that an unpractical man would not take in the whole of the working, he also availed himself of the invitation to take down with him one of the principal cheese-makers in Somerset—a man whom they would all say knew his work thoroughly—Mr. John Hoddinott. Well, they went down there, and they inspected the whole of the system of cheese-making, and he thought Mr. Hoddinott would be inclined to tell them the same as he now said—we had something to learn from them. As to the practical results, they all knew that the proof of the pudding was in the eating, and they had had the opportunity of eating some of the cheese. He told his Derbyshire friends that there would be an agricultural meeting in his neighbourhood in the course of the autumn "Send me one of your best cheeses, and I will take it down to the Society, and they shall examine and taste it. I will send you up one of our best cheeses; and then we shall each know what the other is about." Now from all he had heard of the observations of those around him, and from the little opportunities he had had of receiving the opinions of those who were thoroughly able to give a good opinion on the subject, he might say that the cheese they had to-night was what they would all agree was good cheese—rich cheese—well-made cheese—but it seemed to him not so good as Somerset cheese. However, he would say that having an opportunity of seeing the cheese factory, he determined that he would see

it thoroughly. He went in the morning, soon after the milk was brought in, and he stayed there four hours, and saw the whole thing from beginning to end. There were one or two things which, perhaps, it would be no harm to them to be aware of. One thing, no doubt, was, that by getting the amount of produce of a great many dairies brought to one spot by an organized system, they made up cheese for less than they could before. They had the milk of 340 cows sent in from a number of farms, the most distant of which was, perhaps three or four miles away. The staff required to make all that milk up into cheese was one head-man, two able-bodied men, and two boys; five persons altogether. There was no doubt a saving on that. If we could be absolutely certain that we should be in no danger of injuring the high description of our cheese by doing that it might be a good system to adopt here; but we were not so certain. He was not going to advocate at once the introduction of the system. They saw that it had produced a cheese, which he was told was as good as the best cheese which was made before in Derbyshire; but it only showed him, what he was convinced of before—that that was a long way short of the best cheese that was made in Somerset. The American superintendent of the cheese factory stated that the milk of the cows was rendered irregular in quality by their being kept in a small field until the grass was eaten close, and then changed into plentiful grass; instead of their being kept on a large and even pasture. He heard that the best quality of the cheese made in America remained in that country. One of the farmer's wives in Derbyshire expressed herself delighted with the new system, under which she received 6½d. a gallon for the milk, and got rid of all the trouble. He hoped they would give him credit for his investigations. He had no fear whatever for the Somerset dairies; but having heard a great deal of this American system, and as it had been introduced into Derbyshire, he was anxious to see it for himself, and, what was more, he was anxious to give them an opportunity of seeing for themselves what it could produce. They had had a little too much of local taxation. Mr. Andrews and he had often discussed those matters, and he was quite ready to go with Mr. Andrews to the full extent of admitting that there was a great grievance in the present inequality of taxation. He thought they should recognise it, and that it should be brought home plainly to everybody, and that it should form a ground of agitation. They wouldn't get anything by sitting still. They must be ready to agitate, and ready to insist on the fact that that grievance existed. That grievance for a long while was denied; it was denied out of the House of Commons, it was denied in it. But they were changing their tone without, and the tone within was changing at least as rapidly, and he could say that a great step had been taken in the fact that this inequality of taxation was being recognised. It formed the subject of a committee last year, although that committee only touched on a very small end of the question. It would assuredly form the subject of a committee this next session, and he did hope that they might look for a successful termination to it. But they should not have it unless they were all as fully convinced as those upon whom the burden bore the hardest that they had got a grievance.

Mr. S. WHATLEY congratulated the farmers present on the fact that they did not live under landlords who, if they saw them making ten tons of cheese extra, would immediately raise their rents.

Colonel NAPIER liked to see his tenants put as much money in their pockets as they could, being sure they would improve his land in proportion.

Mr. WHATLEY would ask Major Paget if he would do such a thing, namely, raise the rent as described?

Major PAGET: I am astonished, Mr. Whatley, that you should ask me such a question.

SUFFOLK.

At the Stowmarket Farmers' Club, Col. PARKER, M.P., said: Many questions, though ably discussed during the late session, had by reason of the mass of business, been put off to a future time. He was aware that amongst those so postponed were several questions very interesting to the constituency he had the honour to represent. He might enumerate the Poor Law Rating, Financial Boards, and the Game Law question, which he saw, by proceedings that took place in that very

town, was made the subject of a discussion which would very materially assist those who would eventually have to give an opinion upon that important question, and this was the best assistance that a constituency could render to its representatives.

Lord AUGUSTUS HERVEY, M.P., said: With reference to the Education Bill, that was a measure the working of which they would have to see in the future, but he was persuaded that in its direct and indirect effects it would be greatly for the advantage of the community.

Colonel F. M. WILSON, said: There were two questions immediately interesting on the present occasion—the first of which was the contagious diseases among animals, and the second the education questions. Cattle diseases were more immediately interesting at this time, because they knew, as a fact, that the cattle plague had been imported into France, following the steps of the victorious Prussian armies for a very considerable distance, and it had also appeared in Saxony and Dresden. They hoped that these cattle would all be eaten up before they arrived in England, but they knew how fearful a calamity the cattle plague was, and it was a matter of great moment to them that their shores should be, as far as possible, guarded from it. The Privy Council, however, seemed to be doing their duty, having adopted a new and stringent order with reference to the matter; and while so far as this country was concerned he believed there was no cattle plague within it, with regard to other diseases it might be interesting to them to know how they stood; and he had, therefore, obtained a return from the Clerk of the Peace on the subject with reference to pleuro-pneumonia. From the 23rd of July to the present time, there had been only five cases in the county of Suffolk, viz., one in the Stowmarket district, one at Laxfield, one at Bury, one at Snape, and one at Fressingfield. With regard to foot-and-mouth disease, he was sorry to say that they had had a great deal more of that, during the same period, there having been in all 29 cases. The greater part of them came from the Blything Union, four from Beccles, six from Hartismere, three from Ipswich, two from Lackford, one from Clare, and three from Lewestoft. In his neighbourhood they had been particularly free up to the last week, but unfortunately there had been a great outbreak in the parish of Troston, on the farm of a gentleman who had just taken to farming very considerably. They were probably aware of the course taken by the Privy Council and by the authorities of the country with reference to this disease. Last year, they would remember the Privy Council issued an order directing that this disease should be placed in the same category as cattle plague and the more serious diseases, and the cases should be inspected and reported on by a veterinary surgeon every week. They carried out the instructions of the Government, but at the same time memorialised them to the effect that they were putting the county to a great and needless expense, because a veterinary surgeon could not be expected to inspect a case without being paid for it. No notice was taken of the memorial beyond the usual acknowledgment, and when they found that nothing could be got out of the Government they took the matter into their own hands, and decided that the veterinary surgeons should not be inspectors with regard to the foot-and-mouth disease, but that the police should report upon it. This had been the rule since that time last year, and it was the rule now. It was working very satisfactorily, the expenditure being very much reduced, and the business being carried on better than before. But in this matter they might do a very great deal themselves. They might have police and inspectors, but if any individual who saw a gross case of an animal being driven along the thoroughfare would only bring it forward they might save themselves to a great extent. With regard to the Education Act, it was a very long one, and he was not going through all its provisions, but he agreed with Lord Augustus Hervey that it would be a beneficial measure, and at all events it was a better one than he expected to get. At the same time a great deal of power was left in the hands of the Council, and of course they would act as through Government Inspectors. Now he knew by experience what they were. He had not a word to say against them, but if a man was sent down with authority to inspect he was like other men—he had a hobby, and he rode it to death. He thought it was right that every parish should provide school accommodation, and he hoped and believed it would be provided without having recourse to the rates. They did not want to throw

any more burdens upon them, and if they had to go to the rates they must have undenominational teaching.

WORCESTERSHIRE.

At the Severn Valley Farmers' Club, Mr. WOODWARD said he was sorry he could not in reference to the lauded interests of the neighbourhood congratulate them upon the successful result of their labours during the past two years. They had lost their hay crop—he should rather say they never had one—this year. The swede turnips had suffered to a very large extent, and their common turnips were a total failure. For want of the necessary moisture he feared the corn crops were not at all satisfactory in this neighbourhood, although in some parts of England they were reported as being very good. It was generally believed that the wheat crops in the Eastern Counties, more particularly in the fens of Lincolnshire, in Suffolk, in Cambridgeshire, and in other large corn-producing counties, had been very good indeed. He knew of cases where as much as eight quarters to the acre had been produced in several of those counties, and they would hardly credit him when he referred to this neighbourhood and said he did not think the average was twenty-four or twenty-four and three-quarter bushels per acre. In addition to this, they had to bear with the low prices consequent upon excessive foreign importation. While he believed twenty bushels per acre had been a common crop in the Midlands, he was quite sure the price obtained from the consumers was not only unremunerative, but attended with great loss to the grower. At the meeting of the club at Alveley last year, he took the opportunity of recommending that more attention be paid to the cultivation of barley. He was desirous now of reiterating the opinion he then gave, that too little attention was paid to the selection of seed for barley and to its cultivation in general. They had at the present moment a good demand for barley at high prices, 40s. per quarter, while they had to submit to 44s. for very fine wheat produced in the present season. As much wheat was imported as they could possibly consume, and they should not, as they had done, make the cultivation of wheat a leading feature in the neighbourhood. He believed they could not produce wheat crops at 44s. per quarter: they lost by it; but they could grow, he was persuaded, barley at 36s. and 40s. per quarter with a profit. It was a mistake to suppose that, because they had stiff land in this locality, good samples of barley could not be produced. Good seed and early sowing were necessary.

DEVONSHIRE.

At Newton, Canon GIRDLESTONE said there were a great many questions connected with agriculture in which they could not but feel the deepest possible interest, and hope, for the good and welfare of the people, that they might be speedily and wisely decided. Take, for instance, such questions as the alteration of the law of entail, security to the tenants for that which they put in their land, the question of game, and then of county expenditure; and no one could but be struck with the extraordinary fact that the expenditure made for the good of all classes should be almost entirely borne by one class. Take the general incidence of local taxation, and they could not but be struck with the great anomaly that, while one class of property was wholly exempt, another class had to bear the whole burden by itself. Now, these were questions in which the clergy were all deeply interested, as well as the agriculturists; and he heartily hoped that before long these questions would be wisely, properly, and amicably settled, to the satisfaction of all parties. On all these questions there was, no doubt, a widespread difference of opinion. When he looked at their prize-list and saw the various objects for which prizes were offered, he could not but think that they were doing a work which very greatly conduced to the welfare of the age and of the three twists of the agricultural cord. He could not on an occasion like this travel over the whole of the programme; but he would direct their attention to one item—a prize for the labourer with good testimonials who had brought up the largest family without parochial relief, and whose youngest child was not less than seven years of age. He did not particularly see why they should give particular encouragement to the growth of large families among the agricultural labourers. His experience was that these little olive-branches were likely to crop up quite as often as they were expected, perhaps oftener than

they were wanted. But in giving the prize they had acknowledged two very important principles, in both of which he fully concurred. One was that there was no quality in the agricultural labourer which they should more encourage than self-reliance and independence; the other was that at the root of that striking absence of the spirit of self-reliance was the present administration of the Poor-law. They had admitted these two facts. They could not shut their eyes to this, that if there was one thing that more than another conduced to the misery among the labourers of this country it was this thorough want of self-reliance. As a general rule they never looked to any future at all except the Poor-law. There was no forethought or preparation among them for old age, and he believed this would be the conclusion come to by nearly all those in the country who were experienced in the matter. Now the Poor-law was never intended to bring about this state of things, but simply to supersede the operation of those religious houses which were closed at the time of the Reformation; the use of these houses were to help the poor and friendless—not the profligate and abandoned—who not from any fault of their own had been reduced to a state requiring aid. In Scotland the Poor-law had not been in operation more than 25 years, yet even the Scotch were beginning to feel that its introduction—according to the testimony of Dr. Chalmers—was the means of sapping the feeling of self-reliance and independence of their labourers. The chairman of the Edinburgh Board of Guardians had also borne testimony to its degenerating influence. These opinions led him to believe that the Poor-law there was leading to the same misery and increase of pauperism as in England. He believed the people of Scotland were looking forward to soon abolishing the Poor-law so far as out-door relief was concerned. Now in England to abolish the Poor Law at once would be a social revolution. But if they could not abolish it they should endeavour to improve its administration, and he believed that there was nothing which could be done that would tend so much to the advantage to all the twists of the agricultural cord—landowner, occupier, and labourer—as a more careful and judicious administration of the relief of the poor. Some people said that it would be cruel to refuse relief except in sickness, but so far from its being a cruel thing he thought they could confer no boon so great on the agricultural labourer as to encourage and stimulate him to more self-reliance and independence. In proportion as the labourer was advanced, improved, and educated, in that same proportion would the whole agricultural interest be improved and benefited likewise. He was well aware that he was speaking in a union where perhaps the Poor Law was better administered than in any other union in the county. By the kindness and hospitality of some of the Newton guardians he was privileged to sit the whole morning in the board room and listen to the manner in which they conducted the business of relief and watch the care with which they entered into every case, and he was not surprised to find, on referring to the statistics of the Poor Law Board, issued a few months ago, that in the administration of relief to the poor this union stood, if not first, at least second in the whole county.

Mr. H. CARTWRIGHT thought the magistrates deserved all the honour they received, inasmuch as they were constantly employed in the public service without fee or reward, and as a body they strived faithfully and impartially to do their duty. It had been stated that it would be desirable to have paid magistrates. For himself he quite concurred in the desirability of this as far as large towns were concerned, but he protested against a paid magistracy for rural populations inasmuch as the present county magistrates were generally the friends and advisers of all who chose to come to them; their work was not simply sitting on the Bench and administering the law; but a stipendiary magistrate would give them the bare dry law and nothing else. One of the most desirable as well as influential and powerful bodies of men in this country was the county magistracy. They must remember, too, that it was most desirable to the ratepayers that the present system should be maintained, because if they had paid magistrates then there would be an increase of these burdens which at present existed.

Earl DEVON said the legislation of the last thirty or forty years had tended towards the bringing of different classes into more harmonious co-operation, and he rejoiced to know that in the main the intention of the Legislature in that respect had been cordially welcomed by the various classes of the com-

munity, and carried into practical and successful results. First, they had the Poor-law, which brought the occupying farmer and the landowner into harmonious working; then they had the highway boards established, and now they had the law on Education, to which he was glad to bear his testimony, believing it would be fraught with benefit to the community at large if carried out in the spirit in which it was introduced. Then in the next session the benefits of this class co-operation would be further secured by the adoption of the County Financial Boards.

Mr. SOWTEN (Ipplepen) said all knew that in this country a tenant was subject to a six months' notice to quit, and this he thought was a shame; and there was no doubt much truth in the saying that such a power being in existence did not encourage a yearly tenant farmer to lay out much money in his land, because, after he had invested it he could not tell for certain that he would get anything out of it. There were, no doubt, some good landlords; but land might change owners, and a dispute might arise, because, perhaps, a tenant laid violent hands on those peculiar animals called rabbits. And if landlords and tenants could not agree, then they should part; but if a tenant had six months' notice, he went out without any real claim for the property he had in the estate. Now that was not the sort of thing that ought to exist in this country. They all had the welfare of this country at heart, and they ought to strive to make the land produce all they could, and know that if they had to leave a farm they would have justice done to them and receive their right. Looking at the other side of the question, a man now, if he felt he was not treated well and made up his mind to leave the farm, might do the greatest possible injury to it. He could take everything out of the ground, sell anything off the farm, and leave it in such a state that the succeeding tenant would not for years be able to make it produce that which he had a reasonable right to expect. He did not care about Tenant Right, but what he wanted was justice between landlord and tenant. If there was a law passed securing fair dealings between landlord and tenant, both on entering and leaving an estate, it would not be only to the advantage of the parties immediately concerned, but it would also be better for the whole community at large. It would be for the benefit of all classes if a bill was passed in the House of Parliament for "justice between landlord and tenant."

At Halberton, Colonel ACLAND, M.P., would not speak to them to-night on leases and Tenant-Right, because he believed most of them knew what he thought on one of those subjects, and what was going on lately under an Act of Parliament in another country had set a good many men thinking on the position of tenant-farmers in England. Indications were cropping up that some men who were not in a very comfortable position did not sit quietly under it, and that they didn't intend to. He was not going to flatter them, and he was not quite sure that they would be pleased with what he would say. He was sure that most of them who knew anything about him knew that it had been an old story with him for more than a quarter of a century that there should be security of capital to the farmer. It was a very difficult question, and he would tell them that the first condition of a satisfactory settlement depended on the public opinion of the farmers themselves at the markets and at their tables. He would tell them why he said that. He was an Ecclesiastical Commissioner—and he wished it to be distinctly understood that there was no fee or emolument attached to that office—and he had occasion last year to travel overland on the north coast of England, going over farms from fifty to two thousand acres. He saw a good many farmers in Lincolnshire, and he asked them how they carried on with such wonderful success their system of going in and out of farms when there was such difficulty in the matter in other parts of England? The answer was that they had had their plan in operation a good many years, and they got good farmers by a system of honest valuation. So vital to them was it, they said, that if they found any man acting any other than straightforward in the matter either against the farmer or landlord, his character would be blasted through all the county, and he never would be employed again.

DORSETSHIRE.

At Wareham, Mr. JOHN FLOYER, M.P., said: With regard to this new Education Bill, I trust you will agree with

me in endeavouring to carry it out, and to promote its being carried out upon the old lines. Dorsetshire, happily, holds a place inferior to hardly any county of England in the education it has already provided for its poor people, and I should be sorry indeed to see that education seriously interfered with. I have no love, no taste, for undue interference by the Government. I believe we know pretty well our own business, or we ought to do so. That our present system of education might be improved and extended there is no doubt, but I believe we should do very wrong if we largely departed from the system which has been hitherto pursued. I believe that the old education, the old teaching, which led us to know our duty to God and our duty to our neighbour is a part, and a most important part, of the education for the poor man, and I will say for the rich man also. I would therefore hope that in this county we shall exert ourselves, as my good friend on my left has said, to improve our existing schools and to carry them on efficiently, so that we may have as little interference as possible from the Government and the authorities connected with the central power. There is one other matter, and only one, upon which I will speak with regard to education. My friend Mr. Bond has alluded to the age at which it is intended in some parts that children shall be obliged to go to school. District boards are armed with what are called "compulsory powers." Now I am no lover of compulsion, I like the freedom which an Englishman always regards as his best birthright; and, if I like it for myself, I certainly would not desire to take it away from others. It may be, and it is, most important that all children up to a certain time in their lives shall receive such instruction as can be provided for them. But I would rather this were done by the good influence of those to whom the parents look up for guidance and direction. I would rather this were done by the influence brought to bear upon them by those amongst whom they live—the employers of labour, the landowners, the clergymen, tradesmen, and gentlemen living in the towns and in the country. I would rather that it should be done by their influence than by any legislative provisions, for I think it would be a most painful thing to a magistrate or anyone who has the duty of putting the laws in force to do so against a poor man, and to put a penalty upon him—to rob him, as it were, of some portion of his hard-earned income, or to commit him to prison, for not sending his children to school. I consider this would be a most painful thing to any magistrate, and I hope it will never become our duty to put such laws in force. But the only way in which we can be saved from such a duty will be by the influence exercised by you, the employers of labour, by ourselves, the owners of property, and by the clergy and others amongst whom the lot of the poor is cast, and to whom they look for counsel and direction in this matter. It can only be done by inducing parents to send their children to school till they are ten years of age, which is agreed upon as a very reasonable time up to which they may be sent to school, and by exercising that influence by making them take a part in and derive the consequent benefit from this great measure of Government education. I think politics may be discussed at meetings of this kind, in such a way as to give offence to no man. Politics are the business of county members, and politics are also the life and spirit of all English society. It will be a wretched day for this country when men cease to take an interest in politics.

At Melplash, the Hon. W. H. B. PORTMAN, M.P., said: With regard to the Education Act, he had supported the principle throughout that religious teaching was not to be kept out of our schools, but he had heard since that many opponents of the Bill considered it to be a much better measure than they expected it to be. There was one clause in the Bill which he considered was of very great importance, as well as highly desirable. It provided that in the future no children should be to put work in the fields before the age of ten. It was a very satisfactory arrangement; it was one which he always upheld; and had publicly advocated its adoption. There could be no doubt that the son of a labourer might get a sufficient amount of education before he was ten years of age, which would serve as the foundation of better things in after life, as he had the opportunity of improving himself at night-schools, and making himself more intelligent. But there was so much difference of opinion as to the age at which boys should go to work, that it was really very difficult to settle the point. He happened to mention to a friend of his, who was

one of the members of the East Riding of Yorkshire, that ten should be the minimum age. But that gentleman seemed surprised, and said, "In the East Riding no boy ever goes before thirteen, and generally not before fourteen." In legislating upon the matter, therefore, there had been a good deal of difficulty; it was necessary to consider the habits of the people in different districts. There were one or two other questions upon which he desired to say a few words, for, on occasions like that the members must be excused for talking a little "shop." First there was the gun tax. He did not know whether they really understood it. At this end of the county it was not perfectly understood, and he had had the pleasure of explaining it to several persons. It was supposed that if any one took out a licence for his man, and they quarrelled, a new licence would be required for the new servant. Thus two or three licences would be obtained within the year if a suitable servant was not secured. But this was not the case. The licence served for the year, and they might change their man every month if he did not suit.

GLOUCESTERSHIRE.

At Highnam, Sir MICHAEL BEACH, M.P., said: The agricultural interest has in this country to contend against many difficulties: not the least of these is the difference in weather and climate between this and other more favoured countries of the world. I have travelled lately a good deal, and I have seen in Spain, for instance, large tracts of land whereon with the merest scratching of the soil splendid crops of wheat can be produced year after year almost indefinitely, and this simply because the heat of the sun and the climate generally are so much more genial than in England that the place may properly be called a wheat-producing country. Then, again, not long ago I visited a still larger wheat-producing country—those enormous plains and prairies of America which enable the inhabitants there to compete on such unequal terms with us in England. Their soil is inexhaustible because the extent of it is inexhaustible. When the farmer has used up one piece of land, all he has to do is to change his location and go to another: he has no trouble about manure, and need go to very little expense. Then, again, in California, I saw enormous tracts producing perhaps the finest crops of wheat in the world; and the farmers there had the extra advantage that they had an ample length of fine weather, and no rain at the time of harvest, so that they were put to no expense either in gathering in crops or in providing halls or granaries wherein to store them: they simply thrashed out the corn upon the ground and exported it at once. I mention these matters to show that we in England have rather a hard battle to fight against other countries in producing grain, though, fortunately, there are a pluck and an energy in Englishmen—and nowhere more manifest than among our English farmers—which go far to conquer these obstacles of climate, and somehow or other enable us, by the application of skill and capital to the task, to obtain nearly all that it is possible to produce. That is one of the advantages connected with these societies in encouraging the best manner of cultivating soil as regards ploughing. But there is another and not a less important advantage, and that is the way in which they bring us together for pleasant social meetings. I am sure, from what we have to read every day as to the horrors and miseries of the present war, I do not want to say anything more than I can help about what is passing on the Continent at present. But just for a moment look at the effect in France of the connection between the agricultural interest and the State. If you had in France such a gathering as this, you would probably have found it under the direct patronage of Government, presided over probably by a Government prefect. If there had been present an independent Liberal member, such as my friend Mr. Price, he would have been subject to very grave suspicion on the part of the Government official, and would probably have had every word he uttered taken down, not by the reporters of the country papers, but by the police. The whole system, indeed, is thoroughly and entirely under a paternal Government. Well, now, we in England manage these things in a better fashion, and have done so for many years. We gather together on these occasions; we meet probably under a local landowner, who is a man—I don't refer to present company in particular—of considerable experience and ability in some point or other; we meet the principal farmers holding varying extents of land; and, in fact, such a gathering everywhere embraces

different classes collected together for the expression and continuance of friendship and kindness. Now, to my mind, this is no unimportant matter in what I hope will long continue a distinguishing principle in our English system: I mean the principle of local self-government. You see what has happened in France. Everything there was dependent upon a central Government. That has all fallen through in a moment, and you have nothing left. There doesn't seem to be any single set of persons in the different districts of France who are recognised as the natural leaders of the people, to whom everybody looks up, and in whose hands in such a fearful crisis as this they are ready to place themselves. I don't think that under any circumstances such a state of things could possibly happen in England. Owing to our principle of local self-government we are used to act together in concert. People in that way learn independent thought and action among themselves; they learn also to whom they can safely trust for guidance and control in times of difficulty and danger; and if sometimes those questions occur which introduce a little dispute and unfortunate feeling among men who meet at the Board of Guardians or elsewhere, yet in gatherings like the present we meet together as friends, hear what one another has to say, see one another in our best and kindest moments—and I am quite sure that the intercourse gives an element of friendship to our connection in society generally, and is of very great importance in the social economy of the country.

Mr. W. P. PRICE, M.P., said: I have just returned from a trip of the same character through the fertile plains of the Danubian Principalities and elsewhere, in districts which, I should imagine, might produce corn enough for all the world; but anything more barbarous than their system of cultivation I cannot conceive. The great undulating plains are covered with wheat and grain and crops of different kinds. The Tartar natives once a year plough up the land with five pairs of oxen drawing a little wooden plough, exactly the same as that used in the Roman Republic, two thousand years ago; upon that, in the spring-time, they sow broadcast the wheat or maize or other grain. When harvest comes they cut wheat and flith together. As soon as it is cut it is thrown into heaps, as we put hay together, and made into ricks at once. When they come to thrash it, it is thrown upon earthen floors and simply trodden into chaff by pairs of oxen driven over it, and then it is exposed to the wind, so that the lighter particles may pass away whilst the heavier remain behind. What the produce of these countries might be if only they had a different system of cultivation it is impossible to say, but I can't help supposing that it might be at the least four or five times what it is. In some parts of the country the natives are no doubt alive to the evil of this condition of things. I saw on the banks of the Danube in many places steam-thrashing machines bearing, I think, the names of Clayton and Shuttleworth, and in some places I saw ploughs which had evidently been imported. But on the Turkish side of the river that condition of things does not at all prevail. There they seem to set their faces altogether against any possible kind of improvement, and they seem also more barbarous in their method of cultivation; for when the corn is cut the farmer can't carry it away until the Government has taken its tithe of it. He has to wait until the Turkish functionary can come at his leisure and take out every tenth stock to add to the Government revenue. The consequence of this state of matters is that I have passed by miles of maize and barley and wheat which have been reduced to an absolutely worthless condition by the bad weather to which it has been exposed while waiting for this process of tithing. I have no doubt that our own methods of cultivation were originally as barbarous as theirs. We have been rescued from that condition of matters partly by the instinctive enterprise of the country, partly by good laws, and partly by our security of property. But it cannot be doubted that within the last twenty years our agricultural progress has been stimulated very much by the action of such societies as these.

Mr. HALLEWELL: There is a question which I think may occur, and which I once alluded to here. The question remains now with a small party, but I believe will increase in importance—I mean the question of the compulsory division of land. There are persons endeavouring to carry a measure of that description at some time or other; but they never will, for we must all be satisfied that a measure of that description would destroy the prosperity of British agriculture. I think

that the tenant-farmers of Great Britain as a class of men are the first in the world in agricultural pursuits. When we look at their capital—in the aggregate amount not much less than a thousand millions of money, of which some individuals possess as much as £20,000 or £30,000—and when we see what has been accomplished by the tenant-farmers in this country, they certainly do prove themselves to be a class of men which no other country can produce. I allude to this matter because in the country in which war is now proceeding that system of compulsory division has prevailed for two or three generations, and I believe that its present prostrate condition is due to that fact. If they had had in France such a class of men as our tenant-farmers it would have been impossible to have seen such a collapse of power and energy and means of self-defence as we have witnessed there. A measure passed during the last session with an object very much connected with the interests of the labourer employed by the farmer was the bill for the reform of the beershops. I don't think any Act ever passed by our Legislature has done so much mischief to the community as the old beer-law. That law has now been reformed. The matter has been put into the hands of the magistrates, and they are responsible for the beneficial exercise of their power; and I think you will agree with me that if they do not do their duty by abating the present nuisance they will no longer hold that confidence of the country which they have hitherto had.

KENT.

At Sevenoaks, Mr. H. B. MILDMAY, the Chairman, feared that the period since they last met together had been one of great disappointment to the farmers, for during the year, or rather the larger portion of it, the value of corn (wheat especially) had been most materially lessened by the large imports placed in the market for sale. They all knew the necessity to this land of the cereals they derived from foreign countries, but unfortunately at times the supply was out of proportion to the current demand, and the wants of the country, and those periods and the influence caused by the importations were not such as to strengthen their hands. The summer, with its long-continued drought, made a sensible improvement, and the outbreak of the war gave a further impetus to an upward tendency in prices, but such large purchases were made from the continent that prices were again checked, and when the supplies from France, Germany, and the Black Sea were considered, it was almost impossible to say what the future prospects would be, but when other crops had been the source of so much depression he was happy to think that hops formed some exception. They had had an abundant yield, and quite time too, he thought; for one or two years following they had been rather deficient in this respect. He hoped that when these great sellers who had placed their parcels in the market had cleared off they would see a return to satisfactory rates. During the past winter a large number of labourers had been out of employ, and he had witnessed with much interest the great efforts made to supply them with work. Even from the commencement of the harvest he was afraid many of them were in want of work, owing to the completion of the two railways passing through the district, and the buildings consequent thereon, which had afforded a great deal of employment, but these constructions having been finished, the agricultural requirements did not call for an increase of labour, which, by the way, was rather economised than otherwise by the use of steam machinery. Some felt and expressed a desire to emigrate, and in many of these cases it might seem best to render assistance, but unfortunately it was the most industrious, and generally those from whom they were the least willing to part, who desired to seek their fortunes across the water; and he could not but regret that when they were willing and able to earn their own livelihood, they could not find the means to do it, but had to go to another land. The time was fast approaching when the new Education Bill would come into operation. He was not aware how far its provisions would affect this part of the country, but he presumed that as far as the numbers of schools were concerned, it was very well supplied, although in some respects the building might not have accommodation sufficient, according to the number of the population. Therefore, he hoped that in this diocese alterations and additions would be effected where necessary, and that they would continue under the old auspices. Of course those who resided in the more outlying parishes would take steps to ensure sound and efficient management where a School Bill was found to be requisite, and see that the children in their employ were re-

ceiving the blessings of instruction, thereby obtaining a more intelligent class of men, not only for themselves, but for those who should come after them.

Lord MAISON could not understand why there should be such a deep-rooted prejudice in favour of the old Kent turnrise plough, for he must confess that to his mind the iron ploughs were not only equally good, but an iron plough drawn by two horses did twice as much work as a wooden one drawn by four horses, and he therefore could not understand why this should continue to be the case. They considered now that everything in the shape of time was money, and he could not quite understand how to account for the fact he had stated.

At Stonehill, Mr. J. ALLEN said the question of local taxation was at the present moment occupying the attention of the Government, and giving them a good deal of trouble and anxiety. The committee upon the subject had just issued their report, and he must say it was the most ridiculous report ever issued. It was putting money into one pocket and taking it out of the other. They suggested that the landlords should pay part and the tenant part, but by that arrangement no relief would be given, for they knew the Small Tenement Act provided that the landlord should pay the rates, but they all came out of the tenant's pocket.

NOTTINGHAMSHIRE.

At Calverton, Mr. NIXON, the Chairman, said: There appeared very little for farmers to congratulate themselves upon for the past year, or perhaps for the last three years. It might be said that in 1868 and 1870 they had some good wheat crops; but, taking the produce of the farm on an average, he thought he had been a very fortunate man who had held his own.

CARMARTHENSHIRE.

At Llandoverly, Captain LLOYD, the vice-president, said he had been many years in the country and paid much attention to the farming around him; and he should like to say a word on the question of turnips *versus* wheat. Every tenant, however small his farm might be, liked to cultivate a crop of wheat; but the vital question was this, which would be the most profitable to the tenant-farmer the growth of turnips or the growth of wheat? He would venture to reply in favour of turnips, and in order to give practical effect to his views he would give next year a prize of £5 for the best four acres of turnips. They all knew that at spring fairs higher prices could be got for cattle than at the late fairs. Why should this be the case? Why should not every animal get his belly full through the whole of the winter? The fact was that cattle now lost flesh in the winter from want of proper sustenance, and it was in the summer that they were turned out to get fat. Of course if they wished to keep the cattle in condition or even get them into good condition it must cost something. Take a number of young cattle into a fair in winter; they have perhaps been fed on turnips and straw. They go into the fair in good condition, and the fact was that the drovers would not look at the others. If they brought a number of cattle into that same fair fed upon hay, the chances were they would be very thin and it would be impossible to get a good price for them. This humid climate was better suited for turnips than any other crop. In the adjoining county of Brecon the very excellent cattle and turnip crops constituted the very staple of agriculture in that county. No doubt there was a great disinclination to adopt such ideas because they were new; and as he had previously stated, every tenant-farmer liked to grow a wheat crop. Still a conviction of the advantage of adopting the ideas he had expressed would come by degrees. It was his firm belief that a good crop of turnips was the very foundation of farming.

SCOTLAND.

At Kilmarnock, Mr. HEWITT, of London, one of the judges, said he could speak of the cheese with very great satisfaction, as they were fit to compete with any cheese manufactured in the empire. The lots shown were in the best condition he had ever seen. The cheese had been well handled, well made, well manufactured, and the quality was as good, generally, as could be expected from such a season as last. The weather had been unfavourable for cheese-making, and had affected the flavour more or less, and also the colour. He saw less bad cheese this year than last, but there were not so many pure good coloured cheese this year. The colour of the cheese was not so clear as they could wish it to be. There was nothing

in the show, however, which should not give the Association encouragement. There was no doubt the exhibitors were capable of producing the best quality of cheese, fit to obtain the highest price in the market. He complimented the Scotch farmers on the state of the country of which he had obtained a glimpse from the train, and congratulated them on their beautiful pastures and full stackyards.

Mr. OSBORNE noticed the fact the makers from the South had carried off many of the best prizes. This should not be so, as Ayrshire was the nursery of cheese-making. The circumstance arose, he thought, from their not having in Ayrshire such good houses to ripen the cheese, and he believed landlords were somewhat to blame in the matter. The cheese were only half-made in the chesatts, and unless they were properly cared for in the houses they could never be shown as first-class cheese. Another thing he thought they ought to aim at was to make all their cheese more regular in shape and size. Every stranger must have been struck with the dissimilarity of the cheese: there were hardly two lots like each other: they had them of all shapes, sizes, and forms. Ayrshire farmers did not seem to understand how much it improved the cheese to have them as much as possible of one size. This had always been a fault here, which did not prevail in England or any other part he had been. They brought out their cheese elsewhere as uniform as the lots of butter. He recommended the Society to get the makers to make their cheese more of one shape.

Mr. LINDSAY said, 14 or 15 years ago, when he attended the first or second show of the Society, cheese, butter, and roots were exhibited in the hall where the company was met. They saw the size of the exhibition now; but the fact to which he wished to draw their attention was that in the small exhibition to which he had referred there were more bad lots of butter than at the present show. He did not say that the butter exhibited had all reached perfection; there certainly were some exceptional lots, but the proportion of objectionable butter was almost invisible. He attributed this fact to the fine season. There was evidence, notwithstanding, that the greatest possible improvement had been made. In curing butter, he advised dairymen to preserve as much of the original quality of the fresh butter as possible. They destroyed the original flavour of the butter by killing it with salt. It should also be clean and firm. A considerable portion of cured butter shown had been spoiled by over-working. These were points to which the attention of makers should be directed.

Mr. RAIRD, the chairman, said: The Ayrshire Agricultural Association had done a great deal of good to property in Ayrshire. It has no doubt enhanced the value of land. I believe, but for this and similar Societies improving the capabilities of the soil, improving the implements for its cultivation, for the manipulation of dairy produce, and improving the breed of cattle we would have been left in the state we were thirty years ago in these things, and rents would not have been raised a penny. I am surprised that all that has been done has been by the tenants, the proprietors doing comparatively nothing. I am surprised that this should be put in at the end of this toast now, because I do not think the proprietors could have failed to see the benefits that this and similar Societies confer upon them. They are now getting rents they never would have had but for this and other Societies. Standing here between the member for South Ayrshire and the Provost of Kilmarnock, I may be excused for expressing the Radical sentiment, that property has its duties as well as its privileges. This exhibition has shown that it requires all the ability of our Ayrshire farmers to keep pace with those around them. They never have been able to take the first prizes for cheese. They are excellent makers of cheese, and show first-rate produce; but the first prizes always go away to Galloway. I hope you will bestir yourselves, and that you will stir up your proprietors. One of the judges has remarked that you have not good houses. You must call upon proprietors to give you better houses. Don't let the judges say the cheese are only half made, or spoiled after they came out of the chesatts. If you have not houses then you have not a complete stabling, and are not fit to manufacture cheese. I have been rather severe on the proprietors, and tenants require a little admonition too. There are a great many of them I see go to the town on the market days weekly where they have no business. They get out their gig and horse, and go to the town, and stand in the

market, and spend money, and they have not a particle of business to do. Every week there they go to the market. Now, if they would stop at home and look after their work, and get things properly done there, they would be far better employed.

The Hon. Mr. VERNON, with all due deference to the chairman, thought the success of Galloway dairymen was not altogether due to the want of cheese houses, as he knew of many farms where there were excellent houses in Ayrshire. It was hardly possible that the landlords could do all that was expected of them, and farmers knew they had had harvests recently, and rents were not always forthcoming. Cheese-houses, besides, were very costly parts of farm buildings.

Provost GUTHRIE, Stranraer, referring to the challenge of £200 a-side for cheese, given by the Galloway makers to those of Cheshire, said the former wanted to bring their produce before the public. The Cheshire farmers, however, had everything to lose and nothing to gain, and they declined the challenge. One gentleman said £200 was too small a sum, and spoke of £1,000 as stake. He (Provost Guthrie) asked him if he was empowered to offer that, but he immediately backed out of the affair.

At Paisley, Mr. BRUCE, the Secretary of the Home Department, said he regarded an absolute abolition of the game-laws as simply impossible.

At Crieff, Mr. GRAHAM said: "To the enterprise of the tenant-farmers of Perthshire we owe, along with the other branches of industry of the county, the important fact, that the county of Perth is one of the most important in Scotland. Perthshire, as you all know, is eminently an agricultural and grazing district. We make no pretensions to the mineral wealth of the southern counties; indeed I do not know that any effort has been made to develop the mineral resources of the county, if it has any, with the exception of an attempt made by the late Marquis of Breadalbane to work a lead mine on his property at Ardeonaig, and an unsuccessful attempt, twenty-five years ago, to discover coal at Laigdoors, on the Perth estate. Our agricultural and our grazing resources are the true foundation of the wealth and greatness of the county, and as these are intrusted to the tenant-farmers, they are entitled to a just measure of praise for the position they have enabled us to take as a county. We are so much accustomed every day to see around us marked indications of high-class farming and of successful stock-breeding, that we are apt to take it for granted that matters were always in that position. But when you consider what the state of agriculture in this county was 150 years ago, you will at once see the enormous stride that has been made in the direction of improvement in that comparatively small space in a nation's history. At the time of the "'45," agriculture was at a discount in the county. A broadsword was a far more venerable object in the eyes of our ancestors than a ploughshare; indeed, every species of industry was considered by our Highland neighbours to be degrading. The law of the country at that time was a dead letter north of the Sma' Glen and Spittal of Glenshee. Our neighbouring clansmen had very loose notions of the rights of property, and it was not an uncommon thing for a farmer or stock-breeder to find his corn and cattle carried off in a night's time by people who certainly had not sowed the one or reared the other. In such an age the agricultural development of the country was out of the question, and history accordingly tells us that districts like Perthshire, lying in the mouth of the Highlands, were a comparative waste. Little more was then cultivated than what was necessary for the bare maintenance of the inhabitants. That, indeed, was the age of the straw brecham and the wooden plough. Fortunately, however, a better day was in store for Scotland. The extinction of the Rebellion, and the passing of the Heritable Jurisdiction Act, put an end to the petty sovereignty of clanship, and taught the people of this country to be amenable to law, and insured that the farmer might reap in safety what he had sowed. From that date onwards, the prosperity of this great county, in an agricultural point of view, has been continuous, and we now boast of having a larger number of cultivators of the soil, and a larger average under crop, than any county in Scotland except Aberdeenshire. All honour to the tenant-farmers of Perthshire, who have accomplished this fact. Formerly, as I have said, our agriculture was barely sufficient to supply the immediate wants of the inhabitants; now, we are able not only to serve that first law of nature, but to send supplies to the great centres of population of the country. You have, no doubt, all

heard the time-honoured remark, particularly prominent at agricultural meetings, that every man ought to be considered a benefactor to his country who has made two blades of grass grow where only one grew before. For the tenant-farmers of Perthshire I claim even a higher feat than that. They have made many blades of grass grow where no grass grew before. Vast tracts of country, which had been in the undivided possession of the whin and broom for centuries, are now smiling corn-fields, and the bog and morass are yielding luxuriant crops of turnips and potatoes. All honour to the men who have carried out such a work. The successful agriculturist is, in my opinion, entitled to a larger measure of praise than the conqueror of a province. The one is marching in the van of civilisation, the other in the retrograde movement toward barbarism.

IRELAND.

At Piltown, Lord BESSBOROUGH said: I think I ought to apologise to the cows, for having been so inhospitable in not receiving them inside the park-walls this year; but I thought it more proper not to do so, considering that early in the season I suffered somewhat severely from cattle distemper, and I therefore did not wish that the slightest risk should be run by admitting cattle to the park. Although, I am happy to say, that for the last five months my cattle have been perfectly free from disease; yet as there are rumours of cases in various parts of the district, I thought it much more prudent that cattle should not come within where disease had existed, and that for this year the show should be outside the park. While on the subject of distemper, let me express my great hope that all the farmers in this district will unite with the authorities in endeavouring to put a stop to distemper when it arises. Now, I know it is very much the habit of those who have a case of lung distemper to endeavour to conceal it; but nothing could be more prejudicial than this to themselves and to their neighbours; and further than that, what may not be generally known, the fact of concealment renders a person who has the disease among his stock liable to a severe penalty. I will, therefore, call on every farmer in the district, if any cattle are attacked, to at once give notice to the authorities, that at all events it may be known throughout the locality, that cattle coming from the place may be avoided, and that proper remedies may be applied. Now, speaking of remedies, it is impossible to say which is the most proper. It may, however, be interesting to farmers to know what has been the result of my experience. In the cases I have had of lung distemper, inoculation has been perfectly successful; but whether it would be well for farmers in general to adopt the same course, I really cannot say. This I do know, that the greatest amount of care and skill is required in the performance of the operation, and the greatest care should be given to the animal after it. In my case I had one hundred and forty animals inoculated by an experienced veterinary surgeon—Mr. Pallin of Kilkenny—and from that time to this I have had no case of pleuro-pneumonia. Now, in my case the operation, as I have said, was most successful; but, at the same time, I would advise farmers not at once to rush into thinking that inoculation will be successful; because, if it is not performed by the most skilful hand, the danger will be very great. I trust, however, that in this locality we may hear but little more of the disease, and that if unfortunately it does arise, every precaution will be taken to prevent its spread. Much as I regretted the losing of a large quantity of stock, to which I had paid great attention in the breeding, I was still more sorry that I was obliged this year to deprive my tenants of the advantages I heretofore was able to afford them of access to my sires; but I hope next year I will be able to do so. I think it would be impossible for us, agriculturists, to meet this year without an expression of thankfulness for the admirable harvest we have had. I really believe we may consider that Ireland has this year been the favoured country; and of all Ireland I know of no place more favoured than this peculiar district. Why, when I left England the pasture there was somewhat the colour of the streets of Piltown; but when I come over here, though we have been talking of the great drought, I find everything comparatively green. Now, this district I consider has been favoured in a special manner; because while in many places we hear the wheat-crop spoken of as a failure, in these parts it is good. Therefore, I think the agriculturists of this district may consider themselves highly favoured by Providence in the harvest of this year.

At Gowran, Lord ERNE said he was one who had always thought that the best things that could have been originated in this country were Agricultural Societies, because their exhibitions tended to bring men of all classes together, and enable them to understand each other's interests. They would teach farmers many things, and be a lasting benefit to them. The more these shows could be brought home to everybody the better, because they would then take a greater interest in them. For instance, there was an agricultural exhibition at Enniskillen in each year, and that answered very well for those who were in that town or near it; but it was a different matter entirely to those residing in Lisnaskea. He thought the small local shows were the best means of gaining the desired object. He was anxious to say a few words about some matters which nearly concerned them, because he thought it would be better if they endeavoured to instruct each other, instead of scratching each other's backs. With reference to their markets, he was glad to find that they were on the increase, because markets were everything to them as well as to the country at large. The more attention they paid to the subject themselves, and the better the market was made, the more buyers would come, and they would do good service to themselves and to their neighbours. With this view, he would suggest that a committee should be formed, to see whether the markets were really conducted as they should be, and whether any changes would be advisable. He might state that, for the year ending May 1st, 1869, there was an increase in their markets as follows: 994 pork pigs, and 181 pigs in the slaughter-house, 10,000 stones of flax, 58 tons 10 cwt. of tow, 40 firkins of butter, and 12 cwt. of small butter. This was a very satisfactory state of things, and he hoped their markets would go on increasing. There was another point on which he desired their attention, and that was as to the introduction of farming implements. He would suggest that four or five neighbours should join together, and purchase one of the mowing or reaping machines. He had had a letter from a man in Dundalk who hired such things, and he thought it would be an advantage if they could do the same in Lisnaskea. His steward stated that he cut 86 statute acres in ten days with a one-horse machine, and found it a saving of a great number of hands on every day's work. They would observe how great an advantage could be derived from the use of these machines, and besides they must recollect that they would soon be forced to use them instead of manual labour, because labourers could not be obtained. With regard to the drainage of Lough Erne, they were all aware of the meeting held there last year. He thought it was the most unanimous meeting he ever saw in that or any other place. Not only his tenants, but all those from neighbouring estates, came to it, and were unanimous on the subject. The drainage was a very vast undertaking, and, knowing that, the landlords having laid at the lake selected the best engineer they could find, and laid before him all the plans they had received for four or five years. He was now at work to see how the drainage could be best effected for the money which they could afford to pay for it. If they had to pay a high price, he did not think any of them would like it. If accomplished, however, it would be of the greatest benefit to the country and the health of the people. They were all very anxious about it, because in two or three instances similar undertakings had failed. In the case of Lough Neagh a great deal was done at great expense; and the landlords whom it affected were worse off than ever. He would take great care in his own case, and would mind both himself and his tenants. He trusted that matters would soon be settled in a satisfactory manner.

IRELAND.

At Carlow, Mr. H. BRUEN, M.P., said: Turning to the show-yard, they ought to ask themselves whether what they saw there evinced the progress and improvement which they had made in agriculture. The progress and improvement, if it existed, would be seen there, because he believed that show-yards were the mirrors in which they saw themselves. He did not intend to usurp the office which had been confided to the judges, in saying whether that improvement was what it ought to be; but he recommended them not to be content with what they had already achieved. He who stood still did not advance: while all the world was advancing around them, to remain still was to retrograde. They showed progress with the times. On taking up a copy of the

rules, they saw on the back a picture of a mowing machine. Ten or fifteen years ago it was the picture of a plough. In place of this, when would they see steam ploughs in the hands of farmers? Whether they did it themselves or by combination, this would and must be the future of agriculture in this country. They must not be content to reap their produce with implements they had been using ten or twenty years ago. Every one must perceive the advantages resulting from introducing a better breed of cattle, and improvements in agricultural implements. If those things were done, they would be seen in the show-yards. It might be said that the landlords should show them the way in such matters. No doubt, in the beginning it was quite right that they should do so, but in England they saw the tenant-farmers coming into the field and beating their landlords. That was what he wanted to see here. Let them not be content with the old implements of agriculture, but look for new ones, when, the tenant-farmers might rest assured, the profits would go into their own pockets; for they were not experiments, but had been found a success. To revert to the question which he started with—did their show that day evince progress? The answer to that interrogatory would, no doubt, be given by the judges, whose health he would ask them to drink, for coming there from a considerable distance and giving them the benefit of their experience.

Major BLOOMFIELD said: There was no country in the world which had been so blessed by Providence as this was, and if its people did not progress and improve, the blame rested entirely with themselves. He was sorry to say that the show that day did not exhibit the progress which they were led to expect. The gentlemen's class was fair, but the best in it, he understood, belonged to a tenant-farmer. Their second farmers' class was miserably poor, but their third farmers' class was uncommonly good. The progress manifested there was shown from the wrong end. Progress was a thing to be expected in agriculture as in other matters with which they had to do, and it should never be forgotten that they must either stand still or go on. Standing still was as bad as going back. No doubt grass land had had a bad time of it this year, and therefore they could not expect to see cattle in the same condition as was to be observed in other years; but yet there were artificial means at the disposal of the farmer which, if resorted to, would have aided the production of grass very considerably. Now, he would give them a hint or two as to what might be done. The first thing usually done after cutting down a crop of hay was to turn the cattle into their clover. In a dry year like the present that was a great loss to the farmer. He knew a man who had bad pasturage to put his cattle in shed, when he gave them some cotton-cake, by which he paid himself over and over again, instead of turning his cattle into his clover. Now, that was a very useful thing to know. The person he alluded to had got his cattle into better condition, and he had paid himself in doing so. In the course of a few years he hoped that the second-class farmers and gentry would exhibit greater improvement than he saw there that day. In the third class there were better cattle, and they were certainly in better condition. They should not forget that they were a very favoured Society. Theirs was a favoured county, where the landlords and tenants pulled well together, and they had a better Society than was generally to be found in Ireland.

Mr. Low said Carlow was one of the best farmed counties in Ireland: indeed, he would say it was the Lothian of Ireland. The farms were well fenced and the labourers well and comfortably housed. For his own part, he was much pleased to see that the third-class farmers showed most creditable animals. He hoped they would go on and prosper, inasmuch as he liked to see the tenants beating their landlords; for, in doing so, the result would be to confer advantages on all parties. The animals shown that day would do credit to any national exhibition in England, Ireland, or Scotland.

The Rev. R. W. BAGOT said he cordially agreed with Mr. Bloomfield as to the show of roots, which was highly creditable. In travelling down from Chester to Oxford about two months ago with a gentleman, they computed that they saw ten thousand acres of turnips, but they also computed that they would not give ten acres for those ten thousand acres. The judges had great difficulty in coming to a decision as to which should get first prize for roots in the tenant-farmers' class. With regard to the implements, he thought it unfair for a manufacturer or agent to turn out all the implements in his yard and compete with not only the tenant-farmers, but

also the landlords. Other arrangements, he suggested, should be adopted to put an end to this anomalous state of things. The chairman had stated that he would be always pleased to hear of his own tenant beating him well; his own tenant had beaten him that day in implements. At the next show of the Society he hoped that instead of having three or four classes of implements entered for competition, the secretary would have to procure a larger field for that purpose. It was a source of gratification to him to see so many fine animals. He did not like to see the landlords competing with the tenants for male animals; but he thought the tenants should subscribe and give a prize to the landlords for the best bull kept for the use of their tenants. The third and fourth classes were a credit to any show-yard, but he would not say as much for the other classes.

At Wexford, Mr. BOLAND, the Secretary, said the Society had done much; but yet it had a wide field before it, and he would throw all his energies into the working of it. It was gratifying to know that the Society was in fair working order and fast gaining ground. Besides, the farmers were daily perceiving the advantages to be derived from such a Society, and were throwing their hearts into the work. At all their shows the tenant-farmers now admitted that the object of the society was what its promoters professed, namely, the general prosperity of the country. It would be well for a moment to pause and reflect when they engaged in any undertaking, to see if it was calculated to do good, and if the best means were adopted for doing it: whatever view they took of the Society they must be satisfied with it. The development and improvement of agriculture was the great implement and sheet anchor of the country, and everything which enabled the farmer to produce more cattle, corn, and such things must tend to the material prosperity of Ireland and her people. Now, he would ask, had the Society within itself the elements whereby this desirable object could be obtained? He thought it had. There was no stronger feeling than that of the spirit of emulation created by the rivalry entered upon, which was one of the causes of the success of the Society. It was brought out very much in the show-yard. He had heard sensible men say, because they were beaten, they would never send an animal into the show again. Now, this spirit of emulation was one of the great principles which came within the scope of the Society. In this age of progress, the peculiarity in matters of education was the great system of object teaching. Now, this was done in matters connected with agriculture, when Mr. Bolton and other gentlemen sent in their Shorthorns for exhibition, by which means people could he made to understand what was necessary to be done better than if volumes were written to convey the same thing. It was pleasing to himself and the members to find that the Society possessed those elements, which rendered it worthy of a liberal and generous support. For his own part, he had merely to repeat that he would do all he could to increase the usefulness of the Society, in which he felt confident every right-thinking man would back him up. There were things outside the show of equal importance. Farming did not consist of one idea, and he believed the most successful farming was that which was in some degree mixed. The growing of corn was of equal importance to the raising of good cattle. He wished to bring before the meeting an important matter connected with modern husbandry. It was now well-known that farmers could not go on without using largely artificial manures, so that it was of the first importance that they should be supplied with an article of superior quality. The surest way of ascertaining this was by availing themselves of the advanced science of the age, inasmuch as an analysis of a properly qualified chemist at once showed what was the best manure for him to purchase. They could send a specimen to a chemist, and he would tell them what it was fairly calculated to produce. The Society met this feature of husbandry in a manner calculated to ascertain this important fact, whereby the farmer was benefited, inasmuch as he might obtain a sample from any vendor, and the secretary would send it to the chemist of the Royal Agricultural Society, who, for a moderate charge, would report as to its quality. Of course, under these circumstances no person who adopted the sale of artificial manures as part of his business would, for his own sake and for the sake of his reputation, rest satisfied without having the confidence that such analysis would inspire. He could not impress too strongly on the agriculturists of the county the im-

portance of this matter, and he hoped that next year advantage would be taken to have this test tried, and that the farmers would back up the Society in securing for them good artificial manures. Then, again, he thought there was room for improvement in the mode of tillage which they adopted; for he was confident that they would grow better and heavier crops by employing more capital, skill, and labour. In the lower part of the district in which the Society carried on its operations the laud was was all that could be desired, but he regretted to say that the farmers allowed themselves to be robbed by the great quantity of weeds which were to be found on their farms.

At Ballineen, Lord Bandon congratulated the Club upon the character of the fair and flax market that day, and was confident both would improve. The quantity of stock shown that day and the quality of it should be very gratifying to the members of the Club. He had to complain that the Government had not yet established a telegraph station at Ballineen, which would be a matter of the greatest importance to the flax buyers in the market as well as the cultivators; for the latter would be able to telegraph to Ballineen on any fair day, at a trifling expense, and ascertain the prices in the flax market there, thereby enabling them to dispose of their produce to the best advantage. Another thing they had to complain of was the mismanagement of the railway system between Cork and Ballineen. The Cork and Bandon Railway Company appeared to give very little facility indeed to any one for the transfer of goods from the West Cork line, and they had to complain that no steps had been taken to increase the facility at two places along the line, one being the gate of Castle Bernard, which would open communication with Courtmacsherry, Timoleague, Kilbrittain, and Gaggin, though the expense of doing so would be trifling. Another thing brought under his notice was that the rates of that electoral division amounted to two shillings in the pound. He was himself an *ex officio* member of the Dunmanway Board of Guardians, and he was determined upon inquiring into the cause of so great a rate being levied. He was more than pleased to find that at the fair that day there were two hundred head of cattle, one hundred loads of pigs, and five hundred sheep, and that they all had been disposed of at remunerative prices. Although it was the first day for the flax market, he was glad to find that there were upwards of two thousand stones of fibre exhibited, all of which had been disposed at prices varying from 8s. to 9s. 6d. per stone. He need not remind the meeting that they had a dry summer, and that many of their countrymen had been as yet unable to bring their produce into market. Since last he had addressed them he had been engaged in Parliament in discussing the Irish Land Bill. That bill was now passed, and he was only going to say with regard to it that its operation would make little material difference in that part of the country. In fact, he would be right in saying no difference. It had been said throughout Ireland that farmers had no security for their capital; and though he was happy to say that the cases were few in which it was shown injustice had been done, yet it was alleged that it was possible that injustice might be done by the landlord. It was said that the tenants had £20,000,000 in the bank; but supposing it was one-fourth of that sum, there was no possible excuse now for them not laying out their money on their farms, and by using it on the land they could make more profit than if it were in their pockets. The land bill being passed, it was the duty of every one to carry it out, but the duty of doing so depended more upon the tenant than on the landlord; for it rather prevented the landlord from doing mischief than enabled him to do good. It enabled the tenant to lay out his capital on the land, and now that every possible grievance he could complain of had been removed, he hoped that all farmers' clubs would unite together and develop the resources too long neglected in this country.

JERSEY.

At the dinner of the Royal Jersey Agricultural and Horticultural Society, M. DROUYN DE LUNYS said: You cannot expect from me, in the melancholy circumstances to which my presence among you is attributable, any very extended or flowery speech. I may well adopt the language of the Hebrew children of old, and say, "How can I sing a song in a strange land?" Methinks I hear from afar, while sojourning here, a stranger among you, the din of battle and the shrieks of death in my beloved country. Methinks I see in the dark perspective

long days of havoc urging their destructive course, and brilliant squadrons mowing their bloody way through embattled hosts. Pardon me if for a moment I have cast a shade of gloom over this smiling scene. As your guest I express to you my sincerest gratitude for the cordial hospitality accorded by you to me as President of the Société d'Agriculture de France.

THE SMITHFIELD CLUB.

COUNCIL MEETING on Wednesday, November 2nd. Present—The Earl of Powis, President, in the Chair. Lord Tredegar and Lord Walsingham, Vice-Presidents. Messrs. H. Aylmer, Barnett, J. Beasley, J. N. Beasley, Canning, Clayden, Downing, Samuel Druce, Joseph Druce, Duckham, Walter Farthing, Brandreth Gibbs (hon. Sec.), Charles Howard, Leeds, Newton, H. Overman, Rigden, Torr, J. S. Turner, and H. Webb.

The hon. Secretary was authorized to make the usual application for a licence for holding the Show.

The same Committee as last year was appointed to make arrangements as to the disinfecting cattle conveyances, &c., as heretofore.

Mr. C. Stephenson, of Woburn, Bedfordshire, was elected a Member of Council in place of Mr. Twitchill, deceased.

The Council prepared the house-list of eight members of the Club for election on the Council to succeed the eight who retire by rotation.

Mr. James Edward Ransome was elected a Member of the Implement Committee in place of Mr. Heald.

The offer of the Earl of Powis, the President, of a prize for the best instrument which shall be an efficient substitute for the pole-axe for slaughtering animals by separating the spinal marrow was accepted, viz., a prize of £20. The instruments to be delivered at the office of the honorary secretary on or before the 1st of October, 1871. The exhibitors to show in practical operation at such time and place as the judges appointed by the Club shall determine.

It was determined not to have an annual dinner this year.

It was decided to discontinue the report on the animals exhibited at the Show.

Authority was given to Messrs. Thomas, the Club's silversmiths, to prepare the pieces of plate and silver cups to be awarded at the ensuing Show.

Several letters were read and instructions given in reference thereto.

The following were elected members of the Club:

Bailey, Rev. H. G., The Vicarage, Swindon, Wilts
Benjafield, A., Stalbridge, Dorset
Byron, Jno., Kirkby Green, Sleaford
Cooke, Grimwood, Horseheath, Cambridge
Davy, John, Flitton Barton, North Molton, Devon
Everett, F. H., The Grove, Bridgham Harling, Norfolk
Jenkins, Richard David, Pantirion, near Cardigan
King, George, Saffron Walden, Essex
King, Richard Pocock, Southstoke, Wallingford
Kingsley, Thos., Boar's Craft, near Tring, Herts
Mumford, Jno. Aubrey, Chilton Park Farm, Thame, Oxford
Nockolds, Martin, Saffron Walden, Essex
Priece, John, Court House, Pembroke, Herefordshire
Rush, Thomas, Chalk Farm, Babraham, Cambs
Southwell, Charles, Albion Foundry, Rugby
Tazewell, John, Hay Grove, Bridgewater
Wood, Henry, Wolley House, Romsey, Hants.

The thanks of the meeting were voted to the chairman.

HIGHLAND AND AGRICULTURAL SOCIETY OF SCOTLAND.

The first monthly meeting of the directors for the season was held in George IV. Bridge, Edinburgh, Mr. Graham Binny in the chair.

The following report on the different specimens of horse shoes exhibited at the Dumfries Show was read. The Charlier shoe possesses the following advantages: Lightness; a true bearing on the crust; frog pressure; avoids all suction, and cannot pick up a stone; does away entirely with the use of the drawing knife; is very easily fitted, as the gauge knife can only cut the proper seat. These shoes appear to be more adapted for light work than for draught horses. In expressing this opinion, the committee regret that they have had no opportunity of seeing horses shod on this principle for a sufficiently long time to give them a practical illustration of the system.

Gray's patent grooved steed-faced horse shoes. Workmanship good, and price reasonable. We think some improvement might be made in the method of nailing, especially in the lighter shoes.

Robertson's Snow Plates.—These are only adapted for slow work. There is some merit in the invention, and if further improved upon might be found useful in cases of sudden falls of snow. Portable Frosted Horse Shoe.—Not so serviceable, and more complicated.

(Signed) WILLIAM VARLEY, V.S. (1st Class),
13th Hussars.

J. ANSTRUTHER THOMSON.

Dumfries, 29th July, 1870.

A silver medal was awarded to M. Charlier.

It was remitted to the Committee on General Shows to fix the premiums and adjust the regulations for the show which is to be held at Perth next year.

Requisitions from the counties of Berwick, Roxburgh, Selkirk, and Peebles, to the directors to hold the General Show for 1872 at Kelso were submitted.

Mr. F. N. MENZIES reported that, according to previous arrangement, the Duke of Argyll had received deputations at the India Office on Friday the 15th of July, from the Highland and Agricultural Society, the Royal Horticultural Society, and the Institution of Surveyors, on the subject of forest appointments in India.

The reply to the Society's memorial was as follows: "India office, S.W., 29th July, 1870. My Lord Marquis,—I am directed by his Grace the Secretary of State for India in Council to acknowledge the receipt of the memorial, dated the 1st of June, which was presented to him on the 15th instant, on behalf of the Highland and Agricultural Society of Scotland, stating objections to the present system of training young men for the forest service of India in France and Germany. In reply, I am desired to inform your Lordship that the present system was adopted, after very deliberate consideration of the question, as well by the authorities best qualified to judge of the requirements of the service in India as by his Grace's predecessors in the department, and his Grace is satisfied that the conclusion arrived at was sound. As the first set of these young men was sent to India only at the close of last year, there has been as yet no opportunity of forming a judgment on their practical fitness for the duties required of them; but it is impossible to speak too highly of the attention which is bestowed upon the young men already sent for training in France and Germany, and of the supervision which is exercised over them in all respects. Judging, however, from the reports received from the foreign establishments in which they are placed, from the statements of the young men themselves, and from the expression of their parents or guardians in respect to their position abroad, the Duke of Argyll has every reason to expect that the system will prove successful in supplying a body of well-trained and competent gentlemen for service in the higher grades of the Forest Department in India. A mere inspection of the Continental forests, as proposed in the memorial presented by your Lordship, would not answer the objects which the Secretary of State in Council and the Government of India have in view. I am to point out that how

sufficient soever the training in what may be called the auxiliary sciences, mathematics, surveying, mechanical, and natural sciences, may be in this country, it cannot, in his Grace's opinion, be doubted that the science of managing and administering forests on a large scale, is not and cannot be so fully developed here as it is in France or Germany, where forestry is recognised as one of the scientific professions, for which public forest schools are established, and where the forest lands are of vast extent and managed upon principles more nearly approaching those which are most suited to forests in India than is the system pursued in England and Scotland. His Grace is not prepared to admit that the same results could be obtained in Great Britain as are gained by the training in France and Germany. He would therefore regard it as most unfortunate should the present outbreak of war between France and Germany lead to an interruption of the present system; but, as her Majesty remains at peace with the Sovereigns of both these States, the Duke of Argyll does not anticipate that such an interruption will be necessary. I am to add that although the knowledge of the French or German language is required of candidates only in order to enable them to receive the teaching imparted to them abroad, it is a knowledge, nevertheless, which cannot fail to prove of the highest service to them in their subsequent career, as the best books on the science and practice of forestry are undoubtedly written in those languages.—I am, &c.,

(Signed) J. COSMO MELVILL.

The President of the Highland and Agricultural Society of Scotland.

The SECRETARY stated that the India Board have now sent a number of students to St. Andrews to study under the auspices of Dr. Cleghorn, these students having been ordered home from the forestry schools of France and Germany in consequence of the war.

It was further reported that the next examination of candidates for the Society's forestry certificates would take place on the 3rd and 4th current.

Mr. F. N. MENZIES read a letter from Dr. Anderson, stating that, though much better in health, his doctor would not allow him to return to his work till spring, thanking the directors for the kindness hitherto shown him, and requesting an extension of his leave of absence, also enclosing a medical certificate from Dr. Eryant, of London.

The board, believing that the interests of the Society had not suffered from the arrangements made by Dr. Anderson, and knowing that his opinion has been expressed in every case sent for analysis, agreed to grant the leave of absence requested.

It was announced that the session of the Edinburgh Veterinary College had been opened on Monday, the 31st ultimo, with an address by Dr. Peter Young.

A communication was read from the office of the Privy Council for Trade, sending copy of a letter which had been received through the Foreign Department from Chevalier Cadorna, setting forth the wish of the Italian Minister of Agriculture and Commerce to receive certain communications direct from the Society, and expressing the hope of the Board of Trade that the directors may be able to afford the assistance desired.

The board agreed to send the Transactions of the Society, and any other documents of interest.

Consideration of the letter from the secretary of the Society of Agriculturists of France with reference to a proposed international assembly to be held in Paris in 1871, which was before the general meeting in June, and remitted to the directors, was deferred in consequence of the war.

In consequence of the offer of Sir Roderick Murchison to join the Government in endowing a chair of Geology in the Edinburgh University, the board resolved to memorialise the First Lord of the Treasury in favour of the measure; and it was remitted to a committee—consisting of Dr. Balfour, Mr. Irvine of Drum, and the secretary—to draw up a memorial on the subject, and have the same forwarded to Mr. Gladstone.

Two letters were submitted from Mr. James Kerr, Sheriff

Court-house, Edinburgh, with reference to the dry-earth closet and urinals proposed by the late Sir James Simpson.

A letter was reported from Mr. Mathew Andrews, jun., secretary of the Flax Extension Association, Belfast, sending a pamphlet containing instructions for the culture and preparation of flax in Ireland, and other documents, and intimating

that he would be happy to supply copies to any farmers desirous to gain a knowledge of how the flax crop is managed.

A letter was read from the Home Cattle Defence Association to the directors, who, though not in a position to subscribe as a board, expressed a hope that an Association so likely to benefit agriculturists would not be neglected.

THE WENLOCK FARMERS' CLUB.

AWARD OF PRIZES.

At the annual dinner Mr. RAINFORTH read the following report: We, the undersigned, being appointed to inspect the farms, root crops, and fences of the competitors for prizes given by the Wenlock Farmers' Club, beg to hand you the following report:

For the best cultivated farm.—At Mr. Smith's, Sutton Madlock, we found the land well cultivated, the fields well laid out, and divided with new straight fences of young thorns. The mangold crop is very good and clean. The swedes are irregular and short of plants. The stack-yard and cattle sheds are not so neat as they should be. Mr. Horton's Harnage Grange: Here we found the land well cultivated. The swedes are clean, and a fair crop for the season, but part of the soft turnips have suffered from the drought. Mr. Horton has done a great deal for the farm in pulling down old useless fences, and bringing the others in a proper form. The stackyard and cattle yards not so neat as they might be. At Mr. Trevor's, Westwood, the land is well cultivated, and free from weeds of any kind. All the implements which were not in use were under cover. The rickyard and premises were neat and clean. We have come to the conclusion that Mr. Trevor has won the prize for the best cultivated farm, taking everything into consideration.

For the best cultivated root crops generally, on a farm of not less than 200 acres.—On Mr. Trevor's farm the swedes look healthy, have been well cultivated, and are free from weeds, but are irregularly planted. Mr. Davies's, Patton: The swedes are very good, one-half of the first field being the weightiest and best we have seen, but the field is irregular. The land is well cultivated. Mr. Acton's, Brocton: Here we found the ground regularly planted, well cultivated, and perfectly free from weeds of any kind. We have come to the conclusion that Mr. Acton is entitled to the prize for the best cultivated root crops.

For the best managed fences.—At Harnage Grange a great deal has been done to the fences, but it will be some time before they are sufficient. Mr. Trevor's, Westwood: All the fences lying to the south are good and well managed, but where the land is exposed to the north-west they are deficient. Mr. Lloyd's of Westwood: The fences here are very good and well managed. We agree that Mr. Lloyd should have the prize for the best managed fences.

For the best cultivated root crop on a farm not exceeding 100 acres.—We are both of the same opinion respecting the merits of the different lots entered in this class, viz., Mr. Cooper takes the first; Mr. Moreton second.

WM. LOCKHART,
EDWARD RAINFORTH.

PRIZE LIST, 1870.—Essays: A prize of £10, the gift of Lord Wenlock, for the best essay on the advantages of steam cultivation, and the best means of introducing it into the Club district, to Mr. Stables, Kirkbank, Yorkshire.

The best cultivated farm.—Prize to Mr. Trevor, of Westwood.

The best cultivated root crops.—Prize to Mr. Acton, of Brocton.

The best cultivated root crops on farms not exceeding 100 acres.—First prize to Mr. R. Cooper, Much Wenlock; second to Mr. Moreton, Wenlock.

The best managed fences.—Prize to Mr. G. Lloyd, of Westwood.

REPORT OF THE COMMITTEE, 1870.—Gentlemen: The celebrated Earl of Chatham, when Prime Minister of England, once reproved an ambassador for the paucity

of his despatches, when the ambassador excused himself by saying that there was nothing to write a despatch upon. Your committee, on this occasion, are in a similar position to the ambassador in having little to report to you; at the same time, not wishing to fall under your censure for taciturnity, we follow our usual practice by making that little known to you. Shortly after our last anniversary meeting the Shropshire Chamber of Agriculture occupied one of our meetings for discussion by holding their discussion in Wenlock. A very large and influential meeting was the result, and matters of the highest importance to the welfare and prosperity of agriculture were discussed with a freedom and ability seldom or ever excelled at any of our meetings, and your committee are happy to say that the result of that meeting added fresh laurels to the fame of the Wenlock Farmers' Club; at the same time the discussion at that meeting so exhausted the energy of our members that we have only been enabled to hold one other meeting during the year. Lord Wenlock, at our last anniversary meeting, placed the sum of £10 in the hands of the committee to be offered for the best essay on the advantages of steam cultivation, and the best means of introducing it into the Club district. Your committee regret that his lordship's liberality and laudable anxiety for the welfare of the Club should have been so feebly responded to, only one paper having been received by the committee. This paper was submitted to Lord Wenlock, when it was decided to award it the prize. The essayist attended a meeting in June to read his paper, but owing to its great length the members were precluded from entering into any discussion on its merits, and your committee regret that at present no action has been taken in the matter. Lord Wenlock's liberal offer to take a large number of shares in a steam cultivating company not having been responded to, this, in some degree, may be accounted for by the circumstance that our original and principal members' holdings are on the Ludlow rock formation, and the proximity of the rock to the surface makes deep cultivation impracticable; but the Hugglely valley and the south side of the Corve are admirably adapted for the steam cultivator, and the proprietors of these districts would act wisely by affording every facility and assistance to their tenantry by introducing it upon their respective estates, as the result cannot fail to be successful. Our president kindly offered a prize of £10 for the best paper on the most desirable means of giving security to tenants for capital invested in the improvement of lands and buildings. Only one paper for this prize was sent in, which being submitted to the president and the Editor of the *Mark Lane Express*, was pronounced by those gentlemen as not of sufficient merit to justify the prize being awarded. The paper was returned to the author, with a copy of the judges' report. Mr. Benson places the £10 in the hands of the committee to be offered for an essay next year. J. M. Gaskell, Esq., having withdrawn his name as a subscriber of £2 to the implement prize, A. H. Brown, Esq., M.P., on application, kindly consented to fill up the gap. The members for the Southern Division of the county having renewed their prize of £10 for the best cultivated farm, three competitors have entered the list. The awarding of this, as well as the root crop and fence prizes, was placed in the hands of Mr. Lockhart, of Culmington, and Mr. Rainforth, of Monk-hopton, whose report will be read before you. Your committee met on the first Monday in October to audit the accounts, when a balance of £2 19s. 1d. was declared in the treasurer's hands, and arrears of subscriptions owing amounting to £12 15s. Your committee cannot close this report without earnestly soliciting volunteers to come forward as readers of our discussional meetings. There are several sub-

jects now requiring the earnest attention of this old-established Club: The importation of foreign diseases, by which our flocks and herds are yearly decimated; the injustice and inequality of the local taxation of the country; the best means of increasing the home supply of the food of the people, and making England less dependent on a foreign supply. These and

other questions now await consideration at our hands; and your committee hope that some good men will, during the ensuing year take up these or other subjects, and raise our discussonal business to its former glory. Your committee beg to congratulate you upon the prospect of Lord Acton's acceptance of the presidency of our Club for the ensuing year.

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

MONTHLY COUNCIL: *Wednesday, November 2.*—Present—Lord Vernon, President, in the chair: the Earl of Lichfield, Lord Chesham, Lord Tredegar, Lord Walsingham, Sir Watkin Wynn, Bart., M.P.; Mr. Amos, Mr. Barnett, Mr. Booth, Mr. Bowly, Mr. Cantrell, Colonel Challouer, Mr. Clayden, Mr. Dent, M.P.; Mr. Druce, Mr. Edmonds, Mr. Brandreth Gibbs, Mr. Hollaud, Mr. Horsby, Mr. Wren Hoskyns, M.P.; Colonel Kingscote, M.P.; Mr. Leeds, Mr. Milward, Mr. Pain, Mr. Randell, Mr. Ransome, Mr. Ridley, M.P.; Mr. Rigden, Mr. Stone, Mr. Thompson, Mr. Torr, Mr. Welby, M.P.; Mr. Wells, M.P.; Professor Simonds, and Dr. Voelcker.

Mr. Henry Chaplin, M.P., Blankney, Lincoln, was elected a Governor of the Society.

The following new members were elected:

Arnold, William, Lichfield Street, Tamworth.
Baxter, Benjamin, Elslaek Hall, Skipton.
Beckett, Samuel, Eccleston, Chester.
Boucher, A. E., Wolverley, Kidderminster.
Clerk, Arthur, The Mead, Chepstow.
Davey, J. G. Ellis, Horningtoft, Letcham.
Dunlop, Alexander M., 1, Westminster Chambers, Victoria Street, S.W.
Gilbey, Walter, Hargrave Park, Stanstead.
Hetherington, R. Bealy, Park Head, Silloth.
Holman, Stephen, Spring Lodge, Ealing.
Howells, J. Lewis, Blackwood, Monmouth.
Lovatt, Henry, Finchfield House, Wolverhampton.
Poole, Commander George, Langynider, Crickhowell.
Shuttleworth, Alfred, Heighington, Lincoln.
Tangey, Richard, Cornwall Works, Birmingham.
Townshend, C. Uniacke, Hatley, Burlington Road, Dublin.
Wall, T. Senior, 120, Maida Vale, London.
Ward, T. Johnson, New Lease, Olveston, Bristol.
Waterer, Anthony, Knapp Hill, Woking.

FINANCES.—Colonel Kingscote, M.P., presented the report, from which it appeared that the Secretary's receipts during the past three months had been duly examined by the committee, and by Messrs. Quilter, Ball and Co., the Society's accountants, and found correct. The balance in the hands of the bankers on October 31 was £1,406 10s. 4d. The quarterly statement of subscriptions and arrears to September 30, and the quarterly cash account, were laid on the table. The arrears then amounted to £1,303. The committee recommend that the £1,800 now at deposit be transferred to the current account. This report was adopted.

JOURNAL.—Mr. Thompson (chairman) reported that it had been intimated to the committee as highly probable that £200 will be offered to the Society by gentlemen resident in Shropshire and Staffordshire for two prizes of £100 each to the best managed arable and dairy farms respectively, within a limited distance of Wolverhampton; and that the committee, therefore, requested the Council to decide whether, in case of such offer being formally made, the committee shall be at liberty to announce the willingness of the Society to offer second prizes of £50 each; also, whether the committee, after ascertaining the views of the subscribers, shall arrange the limits of the district to be included, and the other conditions of com-

petition. It was also reported that the Society's publisher had received a lawyer's letter on the subject of the reflections on Messrs. Bradburn and Co. in the report of the Chemical Committee lately published, and that the committee recommended that they be authorised to support the course adopted by the Chemical Committee. This report was adopted. A conversation followed, in the course of which Mr. Thompson stated that the expenses of the last farm-prize competition amounted to about £325, including the 2nd and 3rd prizes given by the Society. Notwithstanding this expenditure, the Journal Committee had recommended that the scheme be carried into other districts, on account of the interest of the competition, and the value of the report to the readers of the Journal; and Mr. Thompson particularly referred to Mr. Keary's report of the Oxford Prize Farms, as showing clearly two points—first, that the 1st prize had been awarded on the satisfactory ground of profitable farming, and not to a model farm; and secondly, that the profitable cultivation of poor land like that of the stonebrash was to be done by a large expenditure in cake and corn. He also remarked that Mr. Keary had brought out the weak points in the various farms in a clear, but unobjectionable, manner. The Earl of Lichfield, in seconding the recommendation of the committee, expressed his conviction that the £200 would be raised by the landowners of the two counties, and his satisfaction with the report of the Oxford competition. Mr. W. J. Edmonds gave notice that in December he would move that the sum of £10 be voted to the Cirencester Chamber of Agriculture, for the purpose of assisting its committee to carry out, in conjunction with the professors of the Royal Agricultural College, manurial and other experiments upon corn and root crops.

SHOWYARD CONTRACTS.—Mr. Randell reported that as Mr. Penny's contract expires after the Wolverhampton meeting, the committee recommended that a general table of conditions and specifications, prepared by the surveyor, should be printed under his direction, and sent to the members of the committee for their consideration before the December Council meeting; that the tenders be then advertised for, and that they be sent in by January 20, to be opened and classed by the surveyor and Mr. Randell, who will report on them to the February meeting of the committee. It was also recommended that the members' tent shall be made available, with accommodation for writing, &c., during the whole period of the country meeting; that Messrs. Suttons' suggestion to keep separate the stands occupied by manure-merchants be adopted; and that the surveyor be requested to proceed to Wolverhampton, and to set out the levelling required in the showyard for the use of the local committee.—This report was adopted.

IMPLEMENT.—Mr. Thompson reported that several letters had been received from implement makers, containing suggestions of alterations in the conditions of competition at Wolverhampton, which had been sent them in accordance with the resolution of Council in August last; some slight alterations had been adopted, and the conditions, as revised, were recommended for

adoption by the Council. The committee also recommended the following addition to the prize list, viz. :

For the best root or stone extractor £10

The committee having received the instructions of the Council to consider what prizes should be offered for implements and machinery employed for the cultivation of nops, they recommended the offer of the four following prizes, viz. :

1. For the best machine for the cultivation of hop gardens, to supersede manual labour £20
2. For the best machine for washing the hop plant to remove the aphid blight 10
3. For the best hop-presser 10
4. For any other improved implement, or implements, used in the cultivation or management of hops 10

It was recommended that all the implements entered for trial shall be in the yard by the evening of Saturday, June 24, and other articles by Tuesday evening, July 4. With reference to the question of duplicates the committee recommended that no exhibitor be allowed to enter duplicates of the same article, and that a maximum fine of 10 per cent. on the declared price, and a minimum fine of £1, be imposed for each article exhibited in breach of this rule. They also recommended that if this rule be adopted, the regulations affecting miscellaneous articles and the space required by exhibitors remain otherwise as heretofore. It was also recommended that in future no medal be awarded to any implement included in the quinquennial rotation which is not placed in the classes tried at that meeting, or to any miscellaneous article capable of trial, until it has been subjected to such trial as the stewards may direct ; also that no commendations of miscellaneous articles be made by the judges. This report having been adopted, a vote of thanks was unanimously offered to Mr. John Medworth, on the motion of Mr. Thompson, for the classified list of implements exhibited at Oxford, prepared by him for the use of the committee.

GENERAL WOLVERHAMPTON.—Lord Walsingham reported the recommendation of the committee that the showyard at Wolverhampton be open from the morning of Monday, July 10, until Saturday evening, July 15, at 6 o'clock inclusive, and that the implement yard alone be open to members and the public on Saturday, July 8, during the usual hours. On the question "that this report be adopted" being put to the Council, a discussion arose, in which Mr. Thompson, Mr. Dent, Mr. Rigden, Mr. Ransome, Mr. Amos, Mr. Booth, and Mr. Wells, followed by Lord Walsingham, successively opposed the recommendation of the committee, on the ground that exhibitors objected to their stock being so long away from home, that the actual receipts, as proved by the experience gained by trying the two plans at other large towns (Manchester, Leeds, and Newcastle especially) were not much increased by the extra day, while the expense to the Society was considerably enhanced, and that to the extension of the Society's show for so long a period as even five days is to be attributed the small show of horses which characterised the Society's meetings. On the other hand, it was urged by Lord Lichfield, who had proposed the additional day in committee, as well as by Mr. Torr and Mr. Randell, that Saturday was the only day on which the working-classes could visit the showyard. Ultimately it was proposed by Mr. Thompson, and seconded by Mr. Dent, "That the showyard at Wolverhampton shall be open on the same days as at Oxford." The amendment having been put from the chair, it was carried by 22 votes against 7, subject to which the report of the committee was adopted.

STOCK PRIZES.—Lord Walsingham presented the report of the committee, embodying the first draft of the stock prize-sheet for the forthcoming Wolverhampton meeting. After some discussion, the report was received, and referred back to the committee with some suggestions for their consideration, and resolutions for incorporation in the regulations of the prize-sheet, namely: It was moved by Mr. Booth, seconded by Mr. Torr, supported by Mr. Bowly and Lord Walsingham, and carried unanimsly, "That each animal entered in the Short-horn classes shall be certified by the exhibitor to have not less than four crosses of Shorthorn blood, which are registered in the Herd Book."

On the motion of Mr. Milward it was resolved that in the pony classes the height should be altered from 14.2 to 14 hands, and that the classes immediately above them should range from 14 hands to 15.2.

It was moved by Mr. Dent, in conformity with the resolution passed at the June Council, that prizes of £10 and £5 be offered for the best and second best mule, irrespective of age and sex. This motion having been seconded by Lord Chesham, and commented on by Mr. Pain, Mr. Randell, and other members of the Council, was put to the vote, when there appeared eight for it and the same number against it. The President thereupon gave his casting vote against the proposal.

Mr. Milward gave notice that at the next meeting of the Council he would move, "That the resolution of June 1, respecting prizes for mules and asses, be rescinded."

On the motion of Sir W. W. Wynn it was resolved that the consideration of the Stock Prizes Committee be directed to the question whether prizes may not be given to Cheviot and other mountain sheep; and at the suggestion of Col. Kingscote, M.P., the Stock Prizes Committee were requested to consider whether it is not expedient that in the classes for "mare in foal, or with foal at foot," the sire of the foal, as well as the sire of the mare, should be given on the certificate of entry.

A memorial from some breeders of Berkshire pigs was also referred to the Stock Prizes Committee.

EDUCATION.—Mr. Holland (chairman) reported that the committee made application for the renewal of the education grant for the ensuing year, and in the event of its being granted they recommended the following alterations in the Society's previous regulations :

1. That the next examination should commence on Tuesday, April 18, 1871.
2. That the forms of entry, duly filled up, together with a certificate of general education, must be forwarded to the secretary by March 1, 1871.
3. That no candidate shall be eligible for the Society's prizes who has completed his 21st year previous to the said March 1; but that any candidate, irrespective of age, may compete for the Society's certificates.
4. That the prizes for aggregate merit, to be awarded to successful candidates who are eligible and are placed in the first class, shall be: 1st prize, £25; 2nd, £10; 3rd, £5.

This report having been adopted, the education grant was renewed for the year 1871.

A letter was read from Mr. Alfred Rogers on the subject of inspection of shearing.

The Earl of Lichfield gave notice, that at the next monthly Council he would move: "That in selecting a town for the holding of the exhibition of 1872 the plan of the Bath and West of England Society be adopted."

The December general meeting was ordered to be held on Thursday, the 8th proximo, at 12 (noon).

AYRSHIRE FARMERS' CLUB.

FARM FENCES.

At the quarterly meeting held in Ayr, Mr. R. M. CUNNINGHAME, Shields, president of the Club, in the chair, said: During the three months which have elapsed since we last met together, some of the most important of our farming operations have been accomplished under very favourable auspices as regards weather. About the time of our last quarterly meeting the hay harvest commenced, and whether or not any of it was cured according to the method described by our friend Mr. Dalglish in his valuable paper, there has certainly been one of the bulkiest crops of hay ever grown in Ayrshire secured in excellent condition. I had occasion to travel through part of the higher districts about that time, and it was very pleasing to see the various fields and meadows thickly studded with ricks of beautiful green succulent hay, which must prove not only profitable to the owners, but also very palatable to those animals who are privileged to consume it. Scarcely was hay work over when the corn harvest commenced, and I think I may safely say that seldom if ever have we in this precarious climate experienced a more favourable time both for cutting and carrying the grain, and most assuredly both in high and low districts a bulky oat crop (which is the staple one) has been gathered in first-rate order. Then again the potato harvest has also just been concluded under equally favourable circumstances as the hay and corn, so that, altogether, the prevailing weather during the past summer and autumn, has admirably suited both the high and lowlands of this county; and the various crops, whether of grass, grain, or roots, will contrast favourably with most other parts of the kingdom. Then again, gentlemen, during these same past three months, there has been a fearful war raging on the continent; the horrid scenes of bloodshed and carnage to human life it is painful even to read of, and though it should soon now terminate, which, we sincerely hope it will, the sufferings and misery it has caused will not soon be effaced. Seeing then that we here are in the full enjoyment of these inestimable blessings, *peace* and *plenty*, there is surely special cause for our rendering praise and gratitude to the bountiful Giver of all good. I now beg to call on Mr. Peter Murdoch, Holchouse, who has kindly agreed to read a paper on "Farm Fences: their Erection and Management."

Mr. MURDOCH said: My experience in the erection of fences has been so very limited, and my style of managing them has been so unworthy of imitation, that I feel ill qualified to do the subject the justice it deserves, and I have, therefore, to crave your indulgence in respect of my shortcomings. After making some investigation lately into the state of farm fences in this district, I am sorry to say I find they are in anything but a good condition. The hedge fences, as a rule, are full of gaps; while dead and half-dead thorns are very numerous. There are a great many good stone fences, but the majority are in a kind of tumble-down position, and in much need of being rebuilt. No branch of agriculture seems at present so much neglected as the management of fences. They seem indeed in many cases to have been left to take care of themselves. Yet nothing is of more importance than good fences, and nothing gives more trouble and annoyance to the farmer than bad ones. The origin of fencing is believed to be a very ancient one, but into that question I do not purpose to enter, though the study might be an interesting one. The general division of land, however, into enclosures by means of fences seem to have been a recent one in this country. In Ayrshire, probably, all the present fencing was erected within the last 100 years. Indeed, I have spoken with old people who remember when a person could, and did, ride miles and miles straight through the country without coming in contact with more than one or two. Not unlikely the first attempt at fencing was directed towards keeping crummies out of the kail-yard. In early times, rivers, burns, and other convenient marks were used as boundary lines, both between different proprietors and farmers. Still in some cases marches seem to have been very badly defined or fixed, and disputes frequently

arose in consequence. It is Sir Walter Scott, I think, who tells a rather amusing story of two Highland lairds, whose march seems to have been so indistinct or badly defined that it came to be lost altogether, and gave rise to the question seriously disputed, where it originally was? But being Highlandmen, their ingenuity was equal to the difficulty. Each agreed to select an old man of a certain age, to travel from certain opposite points on a given day, till they should meet, and the place of meeting, it was agreed, should be the boundary in future. King or boundary fences seem to have been the first in use to any extent. They were often erected with stones, but were rudely constructed. More frequently, I think, they were formed of earth, or cut turf, and were known as turf-dykes. Numerous traces of both are still visible, especially in the upland districts of the county. As the erection of fences has been already all but completed, in some form or other, by our industrious, if not very enlightened forefathers, it appears to me that unless we are going to root out or rebuild a number of our old bad fences, we have more need to study the best method of renovating or improving existing ones. I intend saying a few words on this, however, before finishing. There are three kinds of fences in general use amongst us, namely, thorn, stone, and wire ones. Paling and flakes are also used, but only as temporary or moveable ones. A gentleman with whom we were in conversation the other day, suggested there was still another kind of fence, and which, if he is right, is about the best and most reliable of all. It is, in fact, a locomotive one, that can be moved at pleasure, with the power of action within itself, and which he called a "herd." That a herd is a fence we cannot see, but we at once admit the usefulness and trustworthiness in general of such servants. As there are no kinds of fences so common in our cultivated districts as thorn ones, we shall consider their erection and management first. First of all, let us see what are the characteristics and points of a good hedge. I think they are impenetrability, regularity, and occupancy of the least possible space. How, then, best to attain these ends are points for our consideration. We must, of course, first plant a hedge, next nurse and train it well, and then, if we have succeeded in erecting a good fence, the last but not least important matter is to keep it so permanently. But, again, how these desirable ends can be easiest accomplished is rather a subject of dispute, and one about which I have no decided opinion. In the planting of hedges two methods are pursued. One is to plant the young thorns, or quicks as they are commonly called, on the brow of an open ditch made for the purpose of keeping the roots of the young plants dry, the earth taken from the ditch being heaped up in a kind of bank above the rest of the plants. From the depth of the ditch, this covering is mostly composed of subsoil matter. A fence of this kind will take up a stretch of land 6 or 7 feet broad. The other method is that of planting on the surface, or flat as it is called. When this mode is adopted, the intended thorn-bed should be deeply dug or trenched to a width of 30 inches, and also a little raised above the general level by throwing some extra soil on it, six months or so before the plants are put in. Either of these modes may be adopted, according to pleasure or circumstances, and, if I may venture an opinion on their relative merits, I would prefer the latter. On good dry soils it seems to me to cause little difference which way the work is done. Planting on the surface takes up much less space, is the least expensive method, and, with equal soil and attention, will produce a fence equally good. In the old ditching system the ditches were made so large that they appear to me not only a waste of land, but a positive injury to the hedge itself. By having a deep ditch on one side, the roots are not only all forced to take one direction, but they also soon get bare in consequence of the earth falling down in winter when loosened by frosts or rains. Again, from being planted so much above the level of the soil, and covered with such a great bank

of poor, cold subsoil clay, the plants have a hard struggle to live at all. The most favoured may indeed succeed in throwing out a few new shoots annually, but far more only leaves, while not a few annually give up attempting either. Unless when running water requires to be sent down the ditch, I would reduce the size of the ditch as much as possible. Any surface water is much better carried off by drains, one of which should always be quite close to the hedge. In upland districts, with cold wet land, hedges should never be attempted. I have never seen them succeed. Hedges may be planted with various kinds of plants, either singly or mixed, such as white-thorn, crab-tree, privet, and beech. White-thorn is mostly used alone, though I like a mixture better. I would say that a hedge fence could not be planted and fenced on each side under 1s. or 1s. 2d. per yard. In the rearing and training of young hedges, it is indispensable that they should be kept clean, and well defended by guard fences of some kind. I would be in favour of wire ones for this purpose. It is necessary also that they should be trimmed occasionally, and brought into form. I would not cut a young hedge before the second or third year. I would then cut both the breast and top-shoots, and give it the wedge or A form—broad at the bottom and narrow at the top—leaving it about two feet high. I think many of our hedges are trimmed too narrow at the bottom to make secure fences. I would afterwards trim them every second year for the next 6 or 8 years, at each cutting allowing them to rise in height 6 or 8 inches, according to the progress they made. By this means, at the end of 8 or 10 years I would have a good fence from 4 to 5 feet high, and be able to dispense with the guard or temporary fencing altogether. I am aware many treat their young hedges differently, and that even a few never cut them at all. Many are in favour of trimming every year, while some prefer one shape and some another. In reading a discussion on this subject—that took place in England some time ago—I observed one of the speakers, a proprietor, contended that a hedge should be trained till it was 6 feet broad at the bottom, and he ended by showing what excellent protection such a fence afforded to game. This seems rather an unnecessary waste of land. Still, in looking at our best trimmed hedges, I think we are the other way. Land, no doubt, is valuable, but good fences more so. In the after management of hedge fences there are various systems pursued. The first is to cut the fence annually; the second, to cut it occasionally; and the third, which can only through courtesy be called a system, is to leave it alone altogether. The first gives the fence a very neat and tidy appearance, and those who practise the system consider the hedge thrives best under such treatment. This may be called the advanced system. The second, though less in favour, has most followers, and is the one to which I belong, both in faith and practice. In comparing these two methods, I admit nothing gives a finer appearance to a farm than good, well-trimmed hedges, yet, generally speaking, much depends on whether you have a purely cropping or grazing farm, and whether you are in a high, unsheltered situation or not. Besides, from all I can see, these finely trimmed hedges are frequently more open and bare at the bottom, however close they may be at the top, and are also in a less healthy and thriving state than those only cut every second or third year. Altogether there is more beauty than utility; more show than substance; and more expense than benefit about regularly trimmed fences. I will now leave the respective merits of these two methods to be more fully brought out in the discussion, and would only remark on the third, or let-well-alone system, and that with a view of mitigating that wrath to which I may be exposed from those who follow it, that such fences alone produce that splendid show of milk-white blossom which so much adorns the landscape, pleases the eye, inspires the poet, and perfumes the passing breeze, while they also provide a shady retreat for cattle from the summer sun, and a cosy shelter from the wintry blast. Hedges, however well or ill kept, on a cropping farm, generally overgrow themselves in a longer or shorter period. There is then no other way of renewing it but that of cutting it in or ribbing it, and allowing it to make new wood all over. Either one or both sides may be cut, according to circumstances. When both sides are cut, the height may be brought down to about 3 feet. Cutting of this kind ought always to be done when the fields on each side of the hedge are under crop. If crop should only be on one side of the hedge, then I would only rib that side,

leaving the other till a similar opportunity occurred, so as to prevent having it damaged by cattle. In ribbing a hedge, the cuts should all be carefully made upwards, and the side branches cut pretty close to the main standard. Cutting may be done any time between November and April. This method will generally restore an ordinary hedge, but something more is needed to restore our really bad ones, the handiwork of our predecessors, spoken of before. As perhaps nearly one-half of our hedges are of this character, the task is a difficult and expensive one. With not a few, I am convinced by far the best plan would be to root out the old plants altogether, and plant new ones a short distance from the old situation. In endeavouring to improve old hedges, a very good method is to cut them about 6 inches from the ground, clean out all the old rubbish, dig along the back of the hedge, and plant the gaps with good strong young plants. I would prefer beech ones for this work. Another plan, called plashing, sometimes succeeds very well; where there is plenty of wood, a branch is laid down from each side of the gap whence the fence is being cut, so that the two shall meet in the centre. They are then fastened to the ground by a peg. When gaps are very wide, however, there is no alternative but to fill with plants, and when the soil is poor, a little dung or rich earth may be applied to advantage. I have got another and an entirely new plan to bring before your notice, and though a somewhat novel one, and one which you may be at first disposed to smile at, nevertheless I will state it. It is simply this, when you have an old hedge of the nature I have been describing, allow a good quantity of old grass and under-growth to collect about it; some good March day set fire to it, and give the old half-dead stems a good scorching. They will, though apparently half burnt up, send out numerous fine strong healthy shoots—the basis of a new and better hedge. I saw a rather extensive instance of this kind of renovation lately. A neighbour of mine, who farms his own lands, had two or three fields which had neither been grazed nor cut for the last three years, and which were accidentally burnt down last spring. As the amount of combustible matter was considerable, the hedges were much burnt, and seemed all but destroyed. Now, however, beautiful long healthy sprouts may be seen growing from the roots of the old plants, and while some of the old plants are seemingly dead in the tops, the greatest number are still alive. If the old thorns were now cut down, I believe the hedges would be vastly improved. Whether equally good results would follow every such method, I don't pretend to say. Every one is at liberty to think as he pleases about the matter. We have now done with hedge fences. In upland districts, or where the soil is cold, damp, or poor, by far the best fence is to use a stone one. It makes, indeed, a good fence on any farm, and for grazing land or march boundary it is invaluable. In erecting a dry stone fence, care should be taken to provide good large stones for the founds. The larger the stones, the stronger the fence will be. It is impossible to obtain large stones to build all the fence single, but I would have the butts or double parts short—not more than 4 or 5 feet. I consider a dyke built solely with small stones at the bottom a perfect waste of time and money. Five feet is a very good height for a fence of this sort, and if well built and limed on the top, it will last a lifetime. As to the cost, much depends on the distance the stones have to be driven. They are generally, however, driven by the farmer. The building itself may be done at from 9d. to 1s. per yard. There are many of our old stone dykes in much need of being rebuilt, and that operation can be done for a similar sum, while only a few additional stones are needed. A stone dyke, when erected, is a fence which at once gives good shelter, and entails almost no expense on the farmer afterwards for repairs, unless, indeed, it should be favoured with a passing visit occasionally from our hunting gentry; and then, though there should be a few gaps to build up, the honour of having to do so is considered to be ample recompense for the trouble. The farmer, besides, has the unspeakable gratification of seeing how quickly some can dismount and pull it down; or, better still, the noble chance of being offered a shilling to do it himself; or, still further, being astonished at the style in which each afterwards charges and clears the few remaining stones. In some places gates have been wisely put up to prevent such things taking place. On the estate with which I am connected, this has been partially done, and the results have been very satisfactory. The last description of fencing

we have to consider is wire fencing. It makes a good fair fence, is cheaply and easily erected, occupies little space, and when well put up keeps in cattle or sheep well. When it is intended to be used as a permanent fence, good strong wire and posts should be used, otherwise cattle will soon break or injure it. It may be erected at a cost of from 3d. to 1s. per yard, according to the strength and number of wires, and size of posts used. Railway Companies are adopting wire in preference to thorn and wood fences. I have now endeavoured to bring forward and give an opinion on most of the points relating to the different kinds of farm fences, and the various modes of erecting and managing them; and while conscious that I have not been able to invest my subject with as much interest, or furnish it with so much information as might have been the case in abler hands, yet I have no doubt what is wanting in these respects will be amply supplied in the course of the after discussion.

Mr. CUNNINGHAME (Chapelton) thought hedges, after they were a few years old, were greatly improved and invigorated by being dressed annually, and he believed this system was also the most economical. To give vigour to thorns after being planted, he thought manure of some description should always be put in. He was very well pleased with stone fences, though to render them complete there should be a wire put along the top of them. He did not know whether this would be an advantage to the fox-hunters; but wherever there was a wire across the top of a stone fence the wall lasted longer, for people were not so apt to go across it. He thought wire fences were too open for our northern climate, and unless where done with iron standards, they were very perishable. He thought Mr. Murdoch should have taken notice of the necessity of having good farm gates. In his part of the country, he was sorry to say, there was not one good gate in a hundred. Generally speaking, it cost as much trouble to open a gate as to take down a dyke. It was one of the surest tests of good management to see the fences and gates on a farm in good order.

Mr. CALDWELL (Knockshoggle) said his experience had been confined to thorn fences alone. There used to be an idea that the thriving of a hedge depended on whether or not it was planted to face the sun; but he believed there was nothing in this. The great secret of its growth, he believed, was to put its back to the hill, and then the rootlets fed into the rising land. Where a hedge had been planted with its back downhill, and became weakly, it helped it to put a tile in the ditch, and bring the soil to the level of the roots. Sometimes hedges got into a sort of diseased state; and he thought in such cases a crab thorn was the best to fill up the gaps. It would grow often where beech or other thorns would not grow.

Mr. BONE (East Sanquhar), said both the altitude and situation of thorn fences had a good deal to do with their growth. For instance, in situations within three or four miles of the sea, such as some of them were placed in, hedges, more particularly those with their broadsides to the sea, were invariably injured by the storms and the sea spray. This was particularly the case where the subsoil was light. In many such cases it would be better if some other kind of fence could be substituted; for fill the gaps as they might, the hedge proved a failure. He remembered once carting a quantity of ballast brought over by Irish vessels to the harbour, and putting it along the back of a hedge which had begun to canker. It did good for a time, but portions of the hedge were again dying out, and it seemed that nothing would cure it. His experience was that the hedges were easier kept in higher altitudes than in the lower districts near the sea.

Mr. WHYTE (East Raws), said this was a subject that demanded more attention than it had received. A well kept fence improved the look of a farm very materially; and farmers ought to get a considerable amount of encouragement from their proprietors to attend to the fences and gates, as they gave an estate quite a different appearance when properly attended to. In the district he came from the hedges were not particularly good. They had had their origin at a rather early date, before the country presented the appearance it did now; and some might think they owed their arrangement to some awkward ideas of the managers of the soil at that time. But it should be remembered that in those days the country was apt during winter to be overrun with water, and the fences had to be placed on the tops of the ridges, which were not always straight, and consequently gave rather a curved line to the

hedges. Generally the ditch or face of the fence was turned to the hill, so as to catch the water when it came down, but he agreed with Mr. Caldwell that it was better to have the back of the hedge to the hill. Mr. Murdoch seemed to approve of a hedge being planted on the level rather than with a ditch; but he differed with him in this. In the district he came from, where dairy farming was generally followed, they found that hedges grown on the level were apt to be eaten over by the cattle grazing on both sides, and thus became unhealthy. He thought it was better to allow young fences to be five or even six years old before they were dressed. To begin dressing them at two years old, as Mr. Murdoch preferred, never allowed the plant to get up to a proper height; and, according to the height, so was the strength of the stem generally. Afterwards he would approve of dressing every year. Mr. Murdoch seemed to prefer a wire protection to the young fences from the cattle; but he invariably found that a young fence grew better by being protected by old thorns set up on each side of it. It was not so much exposed to the storm, and grew better than when protected by wire fencing. Where plenty of stones were to be got ready to hand, he would consider a stone fence as cheap, and better for shelter, than any other kind.

Mr. ROBERTSON (Ryeburn), said that in the district where he came from, when making a new fence, they commonly adopted a plan that had not yet been referred to, viz., that of making a sunk fence. They were built somewhat in the same form as a ditch fence. They first of all cut out what was to be the foundation of the fence, and then built sometimes a foot, and sometimes fifteen or twenty inches of stones, and laid the thorn bed on the top of these stones. Then the earth from the slope in front was thrown over behind the thorn roots, which gave them plenty of good soil, while the roots were kept up from the subsoil. This kind of fence, though a little more expensive, took up less room, and was the best thorn fence they had when well taken care of. He agreed with Mr. Cunninghame as to the trouble there was connected with farm gates. He had experienced this himself; but a few years ago he spoke to his landlord to get some iron gates made by the district blacksmith. He had now seven of them, and he believed they would last a century. The blacksmith provided them and fitted them on for some 2s. or 25s. each. He did not hang them on iron pillars; for he generally found that iron gates hung on pillars were always getting off the plumb. The way he did was to build a wall four feet behind the gate, and two feet thick, with a large stone at the end reaching to the top of the wall, to which the gate was hung. He knew gates hung in this way that had stood 50 years. They were a little expensive to put up, but were most durable, and gave little trouble.

Mr. BROWN (Ardneil) said he neither agreed with Mr. Murdoch nor Mr. Whyte as to the best time to begin dressing young hedges. To begin at two years was too early; but to allow it to stand till it was six years old would allow the hedge to get out too much at the sides. They should be guided as to the proper time for dressing by the appearance of the hedge. The sooner it was cut in his opinion the better, if there was sufficient strength of standard left. A great many thorn hedges had no body; but just great branches at the top and thin at the bottom. This took away from the usefulness of a hedge, except for shelter. His opinion was that a thorn hedge should always be kept down till it got thick at the bottom, and that it should be always kept thin at the top. As to whether a hedge should be dressed every year depended, in his opinion, on soil and situation. On poor soils, where the growth was slow, he would say once in two years would be sufficient; but on good land he would dress them every year. It was of importance to protect the young hedges from being eaten by sheep or cattle; but he was surprised to hear Mr. Whyte recommending old thorns for that purpose. These would inevitably encourage the growth of thistles, grass, and weeds, which would have a tendency to choke the young thorns. He thought a wire fence about three feet from the young hedge was the best mode of protection. He had a number of stone fences on the farm where he now was. He did not know whether it was that they were ill built, but he could not say that they were good, and he was not sure they were profitable. He did not think they gave very good shelter unless they were put up very high and were very closely built. His objection to wire fencing was that it afforded no shelter.

Mr. FERGUSON (Auchenbay) confessed that Mr. Murdoch's

plan of burning the hedges was something quite new to him. If he had known Mr. Murdoch's plan some years ago, and if it was really effectual, of which he would like to have some further proof, it would have saved him many a pound.

Mr. DALGLISH (Templand Mains) thought Mr. Murdoch's remarks about the planting and managing of fences were pretty correct. He had planted a number of hedges about seven years ago, and they were now just coming to be fences, and he was taking away the wires from them. The way he did was to examine the nature of the soil and the situation where they were to be put, and if possible to adapt them to the circumstances. He believed it was a great error to make too deep ditches and too heavy banks, but it was also a great error to make them too light. These must be adapted to the soil. On poor soils, as Mr. Cunningham had remarked, it was a capital plan to give them plenty of manure at the first, as it brought them sooner to maturity. In high altitudes and a poor climate he would never think of scutching the hedges oftener than once in three years; if done oftener, they would be apt to fog and die out. He had had some experience of the burning system. The Iron Company happened to lay a bing behind one of his old dykes, and roasted it, and he thought the hedge would be destroyed. But the fire seemed just to anger the old thorns, and they grew remarkably well after it. If they would only let it stand now it would do very well, but if they gave it another dose or two he would not be sure about it.

Mr. LAUGHT (Grange Mains) agreed with some of the remarks made by Mr. Dalglish. If he were a proprietor he would not approve of dressing the fences every year, because he thought it weakened their growth; but he would vary according to soil and climate. He agreed with Mr. Murdoch as to the benefit of cutting down old thorns to about nine inches from the bottom. He had proved the utility of this. The best time for cutting down old thorns, in his opinion, was about the month of April, when the sap was coming. If they cut them in November they were apt to give way under the winter's frost.

Mr. WALLACE (Brachhead) said our forefathers had reared too many fences for the present system of farming. He was in a farm once where there were seventeen divisions, and the first thing he began to do was to put them into six. Where there happened to be good fresh thorns, he transplanted them at very little cost into trenches, filled in the bottom with surface soil; and now at an interval of twenty years these hedges were still growing vigorously. He thought thorn fences were as much in need of a little manure occasionally as anything else. Perhaps manure in a raw state was not good, but decomposed vegetable matter did very well. This could be done in seasons when the land was being green-cropped. He would recommend the filling-up of gaps by transplanting good fresh thorns of some years' growth. He would himself go miles to get thorns for that purpose.

Mr. YOUNG (Kilhenzie), thought that hedges and gates were rather neglected in this county. He thought more favourably of wire fences than some of the speakers, and in the higher districts or on moors where stones could not be got, and thorns could not be easily grown, a wire fence was calculated to be of great service, and it could be erected at moderate expense. The renewal of fences by fire was, he thought, rather a dangerous experiment; the difficulty would be to know when they were burnt enough. Where stones could be readily got, he approved of that kind of fence as giving good shelter, and being able to be kept up at less expense than any other kind. He had found on his farm that it was desirable to let some of his hedges grow to a considerable height for shelter, and on that account they were not trimmed so well as they might be.

Mr. REID (Clune), did not approve of cutting hedges every year except just along the road-side for appearance sake. He

thought one cutting in 4 or 5 years was sufficient for hedges intended to give shelter to cattle. If cut every year they were more subject to be eaten by the cattle. The neighbourhood in which he lived was very unfavourable for the growth of fences, and they needed great attention to keep them from dying out.

Mr. MURDOCH, in replying, said the reason why he had not mentioned gates in his paper was that he did not think they were properly embraced in his subject. Mr. Whyte had expressed his preference for an old thorn guard for young fences; but this would require to be renewed every year, as he never knew old dead thorns last more than a year. Besides, as Mr. Brown had remarked, it would encourage the growth of thistles and weeds. In regard to the renovating and keeping of hedges in order, the system followed on the estate on which he was a tenant was to employ a man for that special purpose, paid half by the landlord and half by the tenant. He thought that system was very beneficial, as the general farm servant could not be expected to trim hedges as they ought to be done.

The CHAIRMAN corroborated the remarks made by Mr. Bone and Mr. Reid as to the difficulty of growing fences in the district where his farm was situated. He agreed with Mr. Murdoch that fences should be planted on the flat, provided the land was drained as all cultivated land ought to be. Of course the subsoil should be dug out if it was poor, and rich earth and manure of some kind introduced. The knife should not be used too freely on young fences; they should be four or five years old before they were touched, and not trimmed oftener than once in two or three years afterwards. In speaking to a gentleman to-day who was a member of this club, but who could not be present at their meeting, he remarked to him, "It is very easy growing fences where you have everything your own way; but if you have got a good many hares and rabbits about, you will not grow good fences. I put in 4,000 thorns one year, but I don't think there are half a dozen but what were destroyed by the hares and rabbits." This was an element in the question which had not been taken notice of to-day, but he believed it was impossible to grow fences and keep them where there were rabbits burrowing in the sides and about the roots of them. He differed with Mr. Murdoch about gates not being included in his subject, as he thought no fence was complete without a gate. Mr. Young had made some remarks, which he would bear out, about the necessity of allowing fences to grow to a considerable height for purposes of shelter. He found that a considerable advantage on the farm he was now in. He remembered when he came to Shields thinking his hedges had been very much neglected and allowed to get their own way, but he could see now the reason why the former tenant allowed the fences to grow so strong—it was for the sake of shelter. Mr. Wallace had spoken of his sub-divisions being too small, but his were too large. As he had only six divisions in 280 imperial acres, he found there was great want of shelter for cattle, sheep, and also for grain crops. He believed they lost more from the shaking of grain in unsheltered situations than any other way. In his case, with fields 600 yards long, there was little shelter from the western gales, and he found that cattle and sheep suffered very much from that cause, and he was certain they required a greater amount of food to bring them to condition than if they had good shelter. He would be inclined even now, after the experience he had had, to erect shelter for both cattle and sheep, but sheep especially, during winter. He believed it tended very much to increase both the growth of wool and of mutton. He believed a big thorn fence afforded much better shelter than a stone dyke, as any one could judge for himself by trying it.

CAPITAL IN AGRICULTURE.

At a meeting of the Gloucestershire Chamber of Agriculture, Captain de Winton in the chair, Mr. D. LONG read a paper, in which he said the causes calculated to prevent the investment of capital in agriculture are these—1st, the law of preference, or the prior right of the landlord to seize for rent;

2nd, the constant increase of local rates and taxes; 3rd, the game-laws, and over-preservation of game; and 4th, insecurity of tenure. And, first, as to the law of preference. It is manifest that when, as the law stands at present, the landlord has priority over other creditors for rent, a tenant with in-

sufficient capital to develop fully the productive power of his farm is, in the eyes of many landlords, an equally eligible tenant with a man of ample capital, more especially if, as is generally the case, he be willing to pay a higher rent than a better class of tenant; provided only that the value of the tenant's farming stock be sufficient, in case of an emergency to secure the full payment of the rent to the landlord. This unsatisfactory state of the law unfairly increases the competition for the occupation of land, and is often productive of great mischief in decreasing the fertility and cleanliness, and reducing the productive power, of the soil; and I think that if landlords were obliged to share the assets of insolvent tenants equally with other creditors, they would naturally become more anxious to find tenants of good standing and with sufficient capital, the speedy consequence of which would be a fuller development of the productive capabilities of the soil, owing to the introduction of the larger capital of the improved class of tenants. Secondly, as to the increase of local taxes. The great and continual increase of local taxes discourages the application of capital to agriculture so long as that capital, if otherwise employed, is not subjected to them. And, moreover, we are further threatened with an additional increase and discouragement for the purposes of education, which, like many other burdens to which personal property does not contribute, certainly must be a national obligation, and the cost of it should not be borne by real property alone. I now come to the third part of my subject—the game-laws and over-preservation of game. I am of opinion that the game-laws, as they at present exist, tend more than anything else to excite feelings of jealousy and distrust between landlord and tenant, and to diminish those feelings of friendship and cordiality which ought to exist between all classes, and more especially between the owners and cultivators of the soil; and I think that these special laws with regard to the preservation of game are an anomaly which requires the immediate attention of the Legislature, with a view to their entire repeal and the substitution of an effective law of trespass. With regard to the over-preservation of game, I would ask why should a landlord take a tenant as occupier and receive the absolute value of the land annually in the shape of rent, and then, through the medium of his gamekeeper, stock the same land and consume the produce grown on it by, and at the expense of, the tenant with game reserved for his own exclusive use and enjoyment? This is the case in the neighbourhood of Gloucester to some extent, and in many places in this county, and I say it is high time that such an unsatisfactory state of things should cease, and that all game should be made the property of the occupier of the land on which it is kept. Landlords who preserve game and reserve the right of shooting, and more especially those who let this right, ought to be compelled to contribute to the rates and taxes in respect of the annual value of such right of shooting. The custom of letting the shooting of estates to strangers, who, having paid for the right, naturally think themselves entitled to exercise and enjoy it to the utmost, and who have no inducement to conciliate and obtain the goodwill of the tenants, is, I think, one of the causes of careless and ineffective cultivation of the soil. This custom often has a kind of demoralizing effect on the tenantry, and, though landlords may have a legal right to do this, they ought to feel themselves under a strong moral obligation not to give power to strangers thus to damage, discourage, and annoy their tenants. If landlords are desirous of preserving their game, why do they not keep land in their own occupation for that purpose? They might then honestly and fairly preserve as much as they wished, since the benefit and enjoyment they would derive from the game would be counterbalanced by a corresponding diminution of income or deficiency in their own crops, instead of, as at present, in the crops of their unfortunate tenants. I now come to the fourth and last division of my subject—insecurity of tenure. And this is a very difficult subject to deal with. A lease is undoubtedly the most desirable and best safeguard to the tenant, and offers the greatest inducement to increased exertion and more liberal employment of capital. But, setting aside the question of leasing, I am of opinion that if all tenants, whether holding from year to year or otherwise, were provided by our law with as ample powers and facilities for recovering the value of their permanent and unexhausted improvements on quitting their farms as landlords now have for recovering damages in cases of breach of covenant and dilapidation, this would go far to obviate the difficulty, inasmuch as it

would induce occupiers without leases to develop the capabilities of their land by the introduction of the greater capital, and would prevent unscrupulous landlords from robbing their tenants of the capital thus introduced.

The CHAIRMAN said it would be a very unhappy result when good feeling between the landlords and tenantry of this country should cease to exist, and the members should discuss the matter with temper and discretion. He did not put himself forward as a practical farmer, but he yielded to no one in interest in agriculture, and desired, in order to avoid one-sidedness, to look at the matter alike from the landlord and tenant's point of view. He quite agreed with Mr. Long in his first proposition that if we could always have tenants on the farms of England with sufficient capital to work them well it would be better alike for the tenant, the landlord, and the land, and certainly much better for the community at large; for if the judicious employment of capital upon a farm does not make that farm pay nought else will. The only difficulty in thinking of the proposition is that its general adoption would to a great extent put aside the men of small capital. And we should have further to decide what is a sufficient amount. A landlord having a farm in a certain condition would naturally say to an incoming tenant, "I've put my land in a very good state at considerable cost to myself, and I desire that you shall prove to me you have sufficient to preserve it in that condition, so that after a certain time it may not be returned into my hands deteriorated." The tenant would answer that truly the land was in a certain condition, but that there was room for the application of more capital, which he must supply; and thus the matter would be discussed between them, and the result be an agreement mutually fair. But you would find great difficulty in securing the landlord in case his tenant became bankrupt or shouldn't leave sufficient on the farm to make up the rent. Landlord and tenant are equally interested in preventing a greater burden than they should bear falling upon land and real property. The fundholder has an equal interest with the man with real property in the maintenance of the poor and of roads—which will shortly be thrown upon real property—and in matters of education. The game-laws was a very proper question to discuss here. If a landlord is not himself an occupier, the tenants would wish that he should have some amusement in the neighbourhood in which he lives; and there might be and should be such a cordial feeling between him and his tenants as that the benefit of the game on the estate should be shared. He should like to agree with a tenant somewhat in this way: "I'm very fond of shooting; there's a certain amount of game upon the farm you are about to take; you or your sons enjoy sport: let us come to some equitable arrangement by which we can both share the sport, and the game on your farm shall not amuse me to your injury—that you shall not, in fact, raise crops upon which my game feed at your cost." The tenant, in most cases, would say, "I and my sons are as fond of shooting as you are, and if you'll only say what amount shooting you would like, I'll always take care that you have it. I only ask that when you shoot I or some of those connected with me may be allowed to go with you or alone." I believe if this plan were followed, the landlord would have as much game as he wished for, and the tenant would be given an interest in its preservation. He protested against the letting of the game on an estate, for as a tenant he should certainly say to a landlord whose farm he thought of taking, "Whatever agreement we make, there is one thing I must stipulate for: I can't allow a stranger and his keepers to come upon my farm and interfere with my produce and go over my land whenever he pleases." Such a system as he had sketched would nurture a sort of clan feeling between landlord and tenant, while the vermin, rabbits, should be disposed of at the will of the tenant, and that the sooner they were exterminated the better. But you should not lay down strict laws; they would interfere with independence on either side. When an honest landlord and tenant meet together, all matters can be duly arranged without appeal to a legal court. His legal knowledge did not suffice to enable him to say whether a lease or a yearly tenancy was the better, but if it were possible some competent valuer should go upon the farm when let and state the condition of the land, and when given up should compare its condition then with its former condition, and the difference in value should be paid to whichever side it were due.

Mr. CLEMENT CADLE said: I think Mr. Long has left out

the chief cause which prevents the application of capital to agriculture—and that is that it pays better in almost every other way in which you can invest it. It was a very easy matter to discover whether a farm required £8, £10, £12, or £15 an acre for its working, and certainly no farm should be let to a tenant with capital insufficient for its working. With reference to leases, they were fast going out of fashion; and hence the greater necessity to agitate for a good system of Tenant-Right—a system which answered very well in Lincolnshire and other places, which had to some extent been recognized by the Government in Ireland, and which in its nature must necessarily be equally for the benefit of landlord and tenant.

Mr. T. MORRIS expressed his curiosity in regard to the origin of the landlord's undue preference as a creditor. The game question was a very delicate point for any set of men to discuss, and said he always looked upon it as a matter of mutual agreement between landlord and tenant. The landlord lets his farm with or without game, and therefore it is a matter of agreement. We should never have heard so much about the game-laws if gentlemen had been content with legitimate sport. They don't go out now for sport; the whole idea is to make a large bag, and the man who makes the largest bag is thought the most of.

Mr. CURTIS HAYWARD said that the question of landlords' preference had been much discussed of late, particularly in Scotland, where it was of far wider importance than in England. It was a privilege the landlord might very fairly yield, seeing that it was very seldom used. If privilege of distress did not exist, there would be the greater inclination to use that power of re-entering upon the land and taking possession of it which forms part of most leases. But all these matters should be arranged with due regard to mutual interest; anything giving exclusive benefit on either side should be fairly put away. He did not think there were many tenants who were really much damaged by game. Of course if a man took a farm upon which game was moderately preserved, and the landlord increased the stock without making ample compensation, he would be doing the tenant a material injury. But, on the other hand, if a man takes a farm upon which the quantity of game is diminished, the landlord has an equal right to say to him, "You took the farm under very different circumstances to the present, and therefore I am entitled to the increased rental due." But in the case of great people who preserve game to the enormous extent they do, the country itself has a right to urge a grievance. Between the landlord and tenant it is, or it should be, a matter of mutual agreement; in the case of injury to the country, the practice should be thoroughly discouraged and deprecated. The profit of letting game was far less than the profit of uninjured crops. With regard to leases, they were not needful to enable farmers to make the most of his land, and certainly they were often inconvenient. But he thought a fair system of compensation was possible in all cases, though he considered it impossible to lay down any regular law without leading to evils and abuses—for instance, to a system prevailing in some parts of Surrey, under which the amount required from the in-coming tenant made it profitable for some speculators to live by taking and giving up farms. But it was obviously quite as much to the interest of the landlord as to that of the tenant that a farm should be yielded up in good condition; there is no man taking a farm who would not be thankful to pay all it can possibly be worth to receive the land in good condition; and therefore it must be to the landlord's interest to encourage any system having that result. In reference to local taxation, the question was attended with much difficulty and should be carefully discussed, and it would be well to keep up a little pressure in order to induce Government to take it in hand as soon as possible. Government should not be deterred from taking it up because of its difficulty; and it was very clear that because the system was the only one which could be adopted in the time of Elizabeth was no reason why we should continue it without change.

Mr. CAPEL said: I have been a sportsman all my life, yet have had no difficulty with tenants, and I can see no reason why there should be difficulties. I think the system of letting a large farm to a tenant, and then, living a great distance from it, to employ a keeper to preserve a large stock of game upon it, and come to it twice a year shooting, is a very bad system, and tends much to the deterioration of good farming and the decrease of produce which should

benefit the country. In cases of landlords who do not care much about sport, they might employ a keeper and send their friends to shoot or let the shooting; but in the latter alternative I think the tenant should have the first refusal of the shooting, his rent being slightly increased because of the privilege, and that thus the man who is practically a foreigner to the neighbourhood should be excluded. The wise plan was to give the tenant the refusal of the shooting. With regard to Tenant-Right, I used to farm pretty largely thirty years ago, and I believe that the system prevailing then is now altered, and that the principle is generally adopted of paying an outgoing tenant for all improvement. I dare say there is some valuer present who always in his valuation regards the condition in which a farm is left; and I quite agree with Mr. Curtis Hayward that an incoming tenant never objects to pay additional compensation for the farm being left in a good state of tillage.

Mr. LONG alluded to a landlord accepting the poor tenant who offered a little additional rental. Now it was a very difficult question to know what rent should be, and there are few people capable of dealing with it. In these days of science farmers don't care to send out their corn-laden waggons in the middle of the night, as they used to do; and in determining the rental you have to consider questions of local and railway situation, and so forth. Farming has made rapid strides of late years. He began in 1828, and farmed for nearly forty years; and at that time there was no regular system of tillage laid down. Since the formation of the Royal Agricultural Society the views of landlords and tenants alike have been very much enlarged with regard to farming; and we cannot succeed in these days unless you adopt the motto of that Society—Practice with Science. No doubt it is needful that a certain quantity of land should be rented. But the amount of capital needed varies in different localities: several farmers living in their hilly country have to employ four horses to do work which farmers in the vale could accomplish with two. Hence the necessity of a landlord seeing the need of his tenants; and they lived in a country wherein most of the landlords resided upon their estates and were thus enabled to arrange with their tenants and work with them—and a tenant will always work with a landlord who will work with him. There were many people in these days who urge that farms should be subdivided. We heard a man say one day that no farmer should occupy more than fifty acres of land. Such a man could know nothing of farming. The question of landlords' preference was one for the Legislature of the country, but he should like to hear an answer to Mr. Morris's question as to how it originated?

Mr. H. BUTT then said it was untrue that, as a general principle, tenants were compensated for improvements they made upon their farms; but Earl de Grey's agent told me in London some years ago that on the Earl's estate there was a certain system of compensation to the outgoing tenants, and that, as a result, he had never had a farm left in a bad state of cultivation. With regard to ascertaining what rent should be charged, there's rather a novel system sometimes followed of getting persons to value land for nothing by putting up farms to be let by tender. I think that such men as Mr. Knowles and Mr. Clement Cadle should know the value of land sufficiently to make such a system as that needless. A case of the kind recently occurred within my own knowledge. I was one of several persons who made an offer for a farm put up by tender, and which was eventually let to a man who had made no tender, the landlord thus getting our ideas of value without cost. As to the farms of fifty acres, such a system is very good for market-gardening; but I don't think there are many farmers with capital who would care to put their shoulders to the wheel to earn eighteenpence a day.

Mr. LONG said he had only desired to refer to the game-law discussion at Winchcomb, where Sir Michael Beach's opinion that the abolition of the game-laws would cause a non-resident proprietary, and that the game should be a matter of agreement between landlord and tenants was very well answered by Mr. Holland in urging that the game-laws should be swept away in order that the land might be left clear for agreement between landlord and tenant.

A resolution was put and passed, "That it is highly desirable that the liberal application of capital to agriculture should be encouraged in every possible way."

THE FRIENDLY SOCIETY ASSOCIATION.

A conference has been held at Maidstone on the question of Friendly Societies, when the chair was taken by the Earl of LICHFIELD, the president of the Association, who said that a Royal Commission was about to be appointed, which he was very sanguine would lead to very important results in its bearing on the question of friendly societies generally. In the appointment of that commission the Friendly Society Association, he said, had been very active. He would glance at the causes which had led to that commission having been appointed, and the efforts that had been made by the Legislature to bring about improvements in the condition of friendly societies generally, and to encourage provident institutions among the working classes. Under the Consolidating Act of 1855, which was passed for the purpose of encouraging and regulating friendly societies, evils had grown up which they had met for the purpose of discussing, and pointing out what are the remedies which they thought ought to be applied. It was not at all necessary for himself or anyone else, he said, to enlarge on the importance of provident institutions for the working classes. On that point he would take it that they were all agreed. In pointing out the remedies for those practical defects in the management of those institutions, he said they must be careful that they did not in any way make suggestions which might interfere with the good points in those societies, or in any way interfere with that spirit of independence and self-reliance which had prompted the establishment of many useful and good societies throughout the country. First among these he took the large affiliated societies, such as the Odd Fellows and Foresters, and he asked whether, as regards this class of society, there were not certain admitted evils connected with the vast amount of good which, undoubtedly, existed in the management of these societies. He said admitted evils, for he had scarcely on any occasion, when the subject had been publicly discussed, and leading members of Odd Fellows and Foresters had been present, not heard opinions expressed by them as to certain defects in the management of those institutions. They had an imperfect manner of keeping their accounts, and of sending up their returns to the Registrar. As a body, the Odd Fellows and Foresters undoubtedly had a very correct appreciation of what rates are really required to make their society, as a society, sound, but, unfortunately, they had not been able to secure the adoption of those rates in all their lodges. Then there was another question in connection with those large affiliated societies which bore very materially on their efficiency, and that was the payment of sick benefit after an age when it was very difficult to distinguish between sickness and incapacity from old age. With regard to the accounts, of the 22,000 annual returns asked for by the late Registrar of Friendly Societies only 10,000 were sent in. His lordship then referred to the county societies, of which they had such an admirable example in this county, which, he said, were not so popular with the working classes as one would think that they deserved to be. Even in this county, where the society was admirably managed, he was afraid that the proportion of members to the population of the whole county was, after all, very small. Now that certainly pointed to the importance that the working classes attach to the management of those institutions being in their own hands. How that could be combined with the efficiency of management and security provided by such a society as the Kent Friendly Society was one of the questions which might be very carefully considered. Then, he said, there was a vast number of societies attached to public-houses, most of them thoroughly unsound. That was a sort of society which he thought it would be almost impossible for the Legislature, or the efforts of benevolent persons, effectually to deal with. How to provide a substitute for them was one of the subjects which would have to be considered by the Royal Commission lately appointed. In reference to that he wished to say with what great pleasure he had heard that Sir Stafford Northcote was appointed the head of that commission. He believed it was utterly impossible for the Commission to be in better hands, and he

thought Sir Stafford's appointment as chairman was as good ground as they could possibly have that the Commission would come to a satisfactory report, and afford Parliament an efficient guide in legislating for the future. In the town of Newcastle alone there were 18,000 or 19,000 members of sharing-out clubs, and the argument that was used in their favour was that the population in that district was of such a variable nature that it was the only sort of club which would really suit the wants of that particular class. Those clubs were, of course, utterly and entirely inconsistent with the principles of all provident institutions, but to what extent there was weight in the argument which was used was, of course, a matter for very careful consideration. There might be a great deal to condemn in them, but those societies must not be considered as altogether wanting in some of the features that make provident institutions attractive to the working classes generally. They now came to Burial Clubs—societies of a totally different nature, and to the proceedings of which they were mainly indebted for the fact that Parliament had at last made up its mind to inquire thoroughly into the subject. He had on many previous occasions called public attention to the very serious evils that he felt were connected with the management of that particular sort of insurance office. The operations of some of these insurance societies were upon a gigantic scale. The Royal Liver Society was receiving from the working classes no less than £176,000 a-year. That society has at the present moment £232,000 of invested capital, and the expenses of management were about 40 per cent. on the whole of the income. Some of the arguments used in favour of such societies were very plausible. It was said that the only means by which they could persuade the working classes, as a mass, to join a provident institution at all was by going from door to door, visiting them, and entreating them to join a society. They were kept up by a huge system of advertising, which had been most successful. But then came the question whether, having succeeded in securing a desire for providence among the working classes, the societies were really in a position to meet the liabilities which they were accepting. Upon that point he candidly confessed he had never heard any opinion which placed him in a position to form a very decided conclusion. They were told by those societies that the rate paid as a premium was sufficient amply to cover the 40 per cent. of their expenses of management, but if they came to look for any statistics, or any information which would bear out that statement, he must say he entirely failed to find them. The number of members and their average age was not even known to the managers of the society. Without feeling the slightest desire to say anything which might injure any institution which directly or indirectly benefits the working classes, he must say that that was a subject which would require careful consideration at the hands of the Commission to be appointed. Unless they succeeded in obtaining information from the hands of the members of friendly societies themselves their labours would be entirely thrown away. How was that information to be obtained? Obviously but in one way—that of sending Assistant Commissioners into every large town in the country, where they would be able to obtain from members, and those who were carrying on the work of those societies, exactly the mode of conducting the business, and the manner in which the accounts of the society are kept. A proposal had been made to establish a Post Office Friendly Society, and in answer to the question whether an equivalent advantage was to be gained in Government security for that tendency which would probably exist to discourage that self-reliance and habits of independence, which induce so many of the working classes now to manage these societies well for themselves, he said that instead of injuring the societies to which he had referred, it would have the effect of bringing a vast number of members to join them, simply because there would be a greater appreciation of the advantages of provident institutions generally among the masses of the people. But if it were asked was it practicable for the Government to undertake the management of a benefit society, he must confess that he had the gravest

doubts on the subject, although he should rejoice if such a thing could be brought about. He would then refer to the great success attending Post Office Savings' Banks, and the comparative failure of the insurance and annuity scheme, and pointed out what he considered the causes. If the Government had any real intention of providing the necessary security for the working classes in the matter of insurance, they must go at any rate as low as £5.

The Hon. and Rev. SAMUEL BEST, one of the secretaries, read the following report :

The report or statement, which as the secretaries of the Friendly Society Association we have to lay before this meeting, is rather an expression of the hopes of the future than details of the operations of the past. It is not that the Association has no history or no past transactions to record, but that it hopes, in the present very unsettled state of the Friendly Society question to take up a part which shall be useful in the settlement of the vexed points now at issue, and to render aid in the formation of a good and sound, and settled system on which the friends and founders of friendly societies may for the future act. It may be interesting, however, to those who for the first time hear of this Association to know that it is not a new society now springing into existence for the first time in these days of great fertility in this respect, but that it has been labouring for some years in a quiet unobtrusive form, endeavouring to bring societies together, and to correct some of the evils under which they have been labouring. It arose in a union of the three county friendly societies of Hants, Wilts, and Dorset, about the year 1863. Its first meeting was at Salisbury in 1864, under the presidency of the Right Hon. T. S. Estcourt. It then removed to London, and enlarged its scope and interests by including all friendly societies within its operations, but still holds its meetings in the country, moving from place to place, to meet the convenience of its members, and according to the nature or locality of the business which came before it for consideration. Several very important questions, as matters of appeal, or advice, have at different times been submitted to it, and efforts were made, but not with any great success, to procure from the different societies in union with the association, such returns of sickness as might afford some practical guide in determining the soundness of the tables on which societies are acting. The opening of the Friendly Society question last year, and the efforts made to secure for them a safer and more equitable basis determined the managers to give a more central and general character to the association. By the implied permission, and though the kindness of the Society of Arts, it was allowed to hold its meetings in the rooms of that centre of social improvement. It reformed its rules, added largely and prudently to the numbers of its vice-presidents and council, and had the good fortune to secure for its president the noble earl in the chair. The object of the Association is fully set forth in the prospectus, and claims to be the promotion of friendly societies or benefit clubs upon sound principles of assurance suited to the industrial and labouring classes 1st, By devising plans for the development of the principles of insurance societies. 2ndly, By the examination of the rules of societies, and suggestions for their alteration or improvement. 3rdly, By the encouragement of the interchange of rights and privileges between the members of different societies. 4thly, By consideration of the bearing the Poor Laws on Friendly societies. 5thly, By the suggestion of legislative measures. 6thly, By acting as a court of reference or arbitration. To these your secretaries would specially request your attention, and in saying a few words in enlargement or explanation of its object, close this report or statement of the designs, proposals, and objects of the Association. It will be readily admitted that friendly societies and benefit clubs are not now upon sound principles of assurance, nor upon such a basis as is suited to the industrial and labouring classes. It is very desirable that the real position of friendly societies should be recognized. The Government of the country endeavoured to give protection against insolvent and fraudulent officers. In the eyes and judgment of the public, in spite of all reclamations, it has been supposed that the signature of the registrar certified the safety and soundness of the society. Even the variety of rules and tables, and the wonderful differences and discrepancies of the latter does not appear either to open the eyes or shake the confidence of the members or their friends. The late Mr. Tidd Pratt constantly disclaimed, but in vain, that his signature

certified anything more than the legality of the rules, and that the tables had been certified by an actuary. To the varieties and discrepancies of those tables allusion has been already made. To the same actuaries are referred the quinquennial valuations of the liabilities and assets of the societies, and with the same uncertainty. These are difficulties and obstacles which require and ought to be provided against, but there are others, and especially as contemplating village societies, which are of a still graver character—namely, the inadequate hands into which the management and working out of such societies fall. The calculations and tables may be perfect, the rules carefully and wisely drawn up, and the whole society *en regle*, but if it wants an understanding mind or minds to enter into the spirit of it, or habits of business and account in its officers, what security can be felt in it? It is too nice and close in its calculations to leave any margin for incapacity or fraud. It may be hoped that these points will be brought under the consideration of the Royal Commissioners about to be appointed, and that such a body of men will be put upon that commission as will be capable of entering into the real difficulties of the case, and who, not treating it merely as a financial question, will see in it one which affects vitally the dearest and best interests of the largest class of her Majesty's subjects, and who, at least in this respect, require more than all others encouragement and protection. It is the best, most thoughtful, and most provident of the working-classes whose interests are involved, and we must not on the one hand either ignore their present state, which education it is to be hoped will enlighten, nor must we throw them off into the cold shade of perfect freedom and irresponsibility without an effort on the part of the Government of the country to give security to their societies, their savings, and investments, by protecting them against incapacity and fraud. The efforts of the committee on friendly societies, which laboured to procure the Royal Commission on this important subject, must not be passed over without the warmest thanks of all the promoters and members of friendly societies, and especially of their sister association, which is now labouring to carry on and complete the work. The result must rest with the commissioners not yet appointed, but if the subject be not inquired into in all its ramifications and consequences—if it be contracted or limited in its application, and the opportunity be lost—it will be a cause of grief and lasting grief to those who have looked to it, and, reasonably, for the clearing up of a great question, and for the removal of the overwhelming difficulties which now paralyze the exertions of those labouring to secure independence, and to keep themselves from the cold comfort and charity of the poor's rates. It is earnestly hoped that the papers about to be read, and the discussion provoked thereby, will lead to the elucidation of questions of interest, and the furtherance of the cause which our very presence here shows that we have at heart.

The Hon. EDWARD STANHOPE, M.A., read a paper on "Benefit Clubs from the Point of View of the Agricultural Labourer." After describing the "sharing-out," and similar clubs in the rural district, he thus concluded: The last agency to which I would direct your attention is one that has often been described, and has of late years met with increasing favour. It is the proposal to extend the system of Post Office Insurances, and to enable labourers to insure themselves at the Post Office for sickness-pay, just as they can now secure annuities. It is a scheme which has been strongly advocated by several able writers, which received the approval of the Royal Commission on the employment of the agricultural population, and was strongly urged upon the attention of the Government by a deputation from the Kent Friendly Society, and numerous other associations in Kent. "It was in effect a petition for a Post Office Friendly Society, which being conducted by the same central authority which is already managing the business of annuities and sums payable at death, shall make its way to the labouring classes through the same channel, the country post offices." One formidable difficulty in the way of the adoption of any such scheme is the enormous amount of additional labour already cast upon country postmasters. But this appears to me to arise not from the excess of labour, but from the miserable remuneration offered for the services performed. Higher pay would soon secure a class of persons well able to undertake an extra duty which, although responsible, would not be very onerous. But would it be possible to guard against imposition, the usual safeguard of personal supervision by neighbours, members of the same club, being removed? The

conclusive answer to this briefly is, that in practice small local clubs are not found to suffer less from imposition than large county ones. The county of Kent Friendly Society, for instance, whose operations are extended over a very wide area, claim that their sickness rate is not only not greater than in small societies, but is actually reduced to a little more than one-half by the energetic means of self-protection adopted by the society. Would not a Post Office Friendly Society have the same means of guarding against fraud! Such a society, besides the unquestionable security which it would offer, would extend a trustworthy system of insurance to all parts of the country, and would give facilities to the members of moving from one part of the country to another, and of making or receiving payments in their new home, far greater than those offered by the large organizations, such as the Manchester Unity of Odd Fellows, which have proved so great a boon to the labouring class. I trust that it may be in the power of this association to endorse this scheme, and to press it strongly upon the attention of the Government and of the Royal Commission now about to commence its inquiry. To country districts it cannot fail to prove an advantage of incalculable importance.

"Benefit Societies and the Poor Law" was dealt with by the Rev. J. Y. STRATTON, of Ditton, one of the secretaries to the association, who said: The poor-rate is the virtual superannuation fund of the farm labourer's societies, and the annual election is the trap-door by which the member is transferred to the rate. He concluded his paper as follows: In order to prevent the spread of a state of moral and social degradation which is engendered wherever men tamely submit to the humiliating position of paupers, and spend their wages and often waste their time on paperising benefit clubs, the special attention of the Poor Law Board is required. Leaving to Boards of Guardians the usual discretionary power of applying a fixed principle of dealing with members of clubs who apply for relief, it would not be difficult to insure such a course of treatment as would encourage labourers to take more care in the investment of their surplus wages than they have hitherto shown. For instance: 1. Let boards grant outdoor relief to applicants belonging to approved friendly societies, where the sickness pay is insufficient for their need. 2. Let them refuse relief, other than the house, to applicants being members of clubs which in their construction, cost, and management, have the poor-rate relief in view. For which purpose certain facilities should be given to the Registrar of Friendly Societies which would enable him to give a list of approved and trustworthy societies to Boards of Guardians. 3. The mischief which has resulted to cottagers under the compounding act in force should also be dealt with. It would have a most salutary effect on the moral and social condition of cottagers, if they were made to pay their share of the rate as it fell due, instead of paying in the rent a sum in excess of the amount chargeable on their tenements. The mode of "farming the rates," as it has been termed, constitutes in the opinion of intelligent labourers a grievance. Why should they be charged 4d. or more a week in the rent in lieu of rates, when the owner does not pay more than 5s. or 6s. a year? Their notion of redressing this grievance is to get as much as they possibly can from the rate. Claims which at present are pressed on the Guardians, with the support and sympathy of cottagers, would fall into disfavour as soon as it became their interest to lighten the burden of the rate, instead of being, as they are now utterly indifferent whether there are two rates in the year or three or more. The difficulty of collecting the rate as it falls due appears to have been overstated. The cottager will pay with no greater reluctance than those who rent larger houses, the tenants being in either case little more than the channel through which the rate is paid, though they have sufficient interest to insure their wishing that payment to be small. In conclusion we express the hope that the forthcoming Royal Commission of inquiry into Friendly Societies will direct its attention to the bearing of the poor law on benefit societies. The assistance of the Poor Law Board would probably be given for this purpose, and a circular letter, accompanied by a few questions to Boards of Guardians, would elicit information at little trouble and expense, and of great value to the country. Closely following on such alterations as are advocated in this paper in the mode of administering relief, and in the collection of rates, we should begin to mark improvements in the benefit societies. At the same time it seems

only fair to the classes on whose behalf we write, that if the facilities for help from the poor rates should become somewhat less, the attention of the legislature ought to be drawn to the provision of means, which, at no cost whatever to the country, might be given to enable young and prudent labourers to work out their own independence, by investing in safe insurances those funds which at present are being wasted in benefit societies so called. Such beneficent care on the part of those who govern, would not only save persons, not by nature more improvident than their fellow countrymen, from ultimate penury, but what is of more consequence, would in the long run contribute largely to their social and moral elevation.

The "Friendly Society of the Future" was described by Mr. W. H. MICHAEL, who said, as a fundamental principle, friendly societies should be interfered with as little as possible by the State. Centralization would deprive the people of a powerful means of self-education; besides, idleness and malingering can hardly be prevented by post-office supervision. He says an inexpensive mode of arbitration in the difficulties continually arising between members and societies is much wanted, and he suggests that a barrister, a doctor, and an actuary should form the commission. As there are more than 20,000 societies in existence, the payment of 5s. annually from each would supply a fund adequate to its effective working, without entailing any cost on the country, the registrar then, as now, being the only charge on the Consolidated Fund. Each member should have a policy and copy of rules upon admission to a society, and no change from one society to another should be valid without written authority from the member; while, where collectors are appointed, no forfeiture should take place from failure of the collector to call for the periodical subscription until notice had been sent from the chief office, or nearest branch office of the society, of the default of the member, stating the amount, and giving seven days' notice of claim for payment. To each society a benevolent fund attached would be a great boon; and to those who wish to aid friendly societies would do good service by subscribing. Out of this fund loans might be made, or gifts of small sums to deserving members pressed down by sudden calamity or distress, in order to prevent a loss of benefit by non-payment of subscription money; but that form of benevolence now existing, which maintains and upholds a society, and without which it could not exist, is hurtful rather than beneficial, for it makes the members trust to others where they should depend on themselves; and when from death of the benefactor, or other causes, the help is no longer forthcoming, the society can no longer exist. The adoption of regulated rates of payment according to age, supervision of funds, and prevention of management expenses trenching on sickness and death funds, supervision of accounts by the registrar, their production rendered compulsory, an easy mode of settlement of differences, and help and advice to societies in difficulties, appear to be the chief wants, which, when supplied, would procure for the friendly society of the future an extended sphere of national usefulness.

Mr. PINCHBECK, the parliamentary agent to the Foresters, gave some information with regard to that society, and he pointed out that if one of their courts were broken up the members could come on the district fund, and afterwards on the High Court fund. He could not conceive any question more difficult than legislation on the matter of friendly societies.

The Rev. R. B. WRIGHT described a Court of Foresters which had been formed in his parish, and said he found a very vicious point in the rules. All paid the same sum, whatever their age. This he had succeeded in inducing them to alter with regard to the admission of new members. He was not at all aware that there was any fund on which the members could rely should their own fail.

Mr. KEEN regretted to say that the largest number of members on the sick-list of friendly societies generally was when there was a dearth of employment.

The Earl of ROMNEY referred to the popularity of the small clubs in this district, and said, speaking upon his own experience of the Kent Friendly Society, working men, if left entirely to themselves, did not make their selection very wisely.

Mr. BONHAM-CARTER said those who advocated a Government interference had no idea whatever of taking the control out of the hands of the governing bodies of the various societies.

Lord LICHFIELD, in resuming the discussion, said the case as made out by Mr. Stratton against the sharing-out clubs in this district was a very strong one. Those societies were formed, it seemed for the express purpose of throwing their members eventually on the poor rate. He could not help thinking that they had among them many persons who had been, or were still, members of those sharing-out societies, and it was for them to say whether the serious charge brought against them by Mr. Stratton was really correct or not. One of the most important subjects that was brought before the conference that morning was one that must be of the greatest possible interest to all who desire to see habits of providence cultivated among the working classes. It was a proposal in Mr. Stanhope's paper for the establishment of societies by the Government with Government security, not only as they at present exist for insurance and payments at death, and for annuities, but also for payment in sickness. At the opening of the conference he pointed out the difficulties which would attend any such plan, and several who spoke afterwards pointed out that it would be almost impossible for the Government through the Post Office to protect themselves against fraud and malingering. He must confess that if the Government were able to see their way practically to carry out such a scheme, he did not think their doing so could be objected to on anything like reasonable grounds. But here came the next question, which was, to his mind, of the next importance in what had taken place in the morning. That was as regards Government interference with those societies, and on that point he wished very much to hear some further opinion on the part of members of those societies, and persons who have peculiar experience in the working of them. The question was what would they call Government interference? If the Government required that such accounts should be laid before the public annually, as to enable all persons easily to form a correct conclusion as to the solvency of such societies, would that be called Government interference? All he could say was that at the present moment the large insurance offices for the rich are under far more stringent restrictions and regulations. Not one half of the societies now sent up their returns, and those who did, sent them in a shape utterly unintelligible to anybody who wished to obtain information from them. This should be remedied in some kind of way. If they did not comply with the regulations laid down by Act of Parliament, he thought they should not be recognised, as they hitherto had been, by obtaining a Government certificate. He entirely agreed that there should be a minimum of interference on the part of the Government, but more stringent regulations and restrictions should be insisted upon. It was of the utmost importance that the Royal Commission about to be appointed should be supplied with every information that can be obtained bearing on the constitution and management of all the different classes of societies throughout the country. Then Parliament would be in a position to legislate satisfactorily on the subject. Of this, however, he was perfectly assured that whatever remedies are contrived, whatever Government chooses to do in the way of founding provident institutions for the working classes, that there will always be a number of societies open to all the evils and objections they had heard that day, so long as there was not among the masses of the working population of this country that better education which they all sincerely trusted the legislation of the last Session of Parliament would secure to them. His Lordship then said a question was raised in the course of the discussion that morning as to whether the large affiliated societies, such as Odd Fellows and Foresters, could lay claim to the position they professed to hold as one large united society, seeing that they had branches all over the country, some of which branches might be solvent and others insolvent, and it was implied that if one of those lodges or branches happened to be unsound, or to fail, the society as a whole would not be responsible. Now that assertion had been contradicted by Mr. Pynchbeck, the Parliamentary agent of the Foresters, and he had placed in his (Lord Lichfield's) hands a copy of the general laws of the society, which showed that members of lodges so broken up might join a district or high court fund.

The Hon. and Rev. S. BEST delivered an address on the objects of the Friendly Society Association.

The Hon. E. STANHOPE addressed the meeting on the advantages of a Post-office friendly Society, pointing out the security which such an institution would have, and combating the arguments which might be used against it. He said post-

masters had already been employed by the Kent Friendly Society, and the system was found to answer admirably, the rate of sickness being much lower than in many of the other societies. A Post-office Friendly Society, he said, need not interfere with other well-managed institutions, but it would fill up ground which was now vacant.

Lord FITZWALTER said, as a supporter of the County of Kent Friendly Society, he was very glad to hear it spoken of with such confidence. One of the first objects of their meeting was to consider how they could render those societies really useful and worthy of the confidence of those attached to them. Let them consider how a society showed itself worthy of their confidence. In the first place it must be always ready to pay a fair claim made upon it; and it should have in reserve a large sum of money ready in case the demand should be greater. In that respect the County of Kent Friendly Society was well worthy of their regard. He was far from saying, however, that small societies, similarly well conducted in the place in which they lived, were not equally desirable. It was all very well to enjoy a jovial evening once a year, but such matters ought not to be mixed up with the operations of the society which they looked upon to aid them in times of sickness and old age. The question which they had met to consider was a great one. It interested the whole country at large, for what could be more important than that the means which they had provided for the contingencies of the future should be well and properly applied? The anxious wish of the country was to consider all the points bearing on the question, and they would have the opportunity before the Royal Commission of giving evidence, and taking steps to investigate matters which seemed to require explanation. He was quite sure, as reasonable men, they would be desirous that in a fair and proper spirit those inquiries should be made.

Mr. PINCHBECK, of the London District of Foresters, entered into some of the details of Forestry, showing that members might be transferred from one district to another, and even to Australia and the colonies, without losing any of their privileges. He referred to their system of settling disputes by arbitration, and their several Courts of Appeal, and said he believed that their system was as perfect as it could be made. They wanted no Royal Commission to interfere in that matter; they preferred to trust to their own brothers rather than to any County Court jury in existence.

Mr. J. G. TALBOT, M.P., said in many matters they constantly heard that certain things should not be done without consulting the working classes, but he would remind them that the working classes were not the whole nation, and that other classes ought to be considered as well. The present, however, was one of those very few questions which concerned almost exclusively the working classes, and it was with that view that the Chairman and other speakers sought to hear their opinions, so that they might know what were their feelings on the matter. There was a necessity among the working classes, not only to provide for sickness and burial expenses—which the sharing-out clubs, he was afraid, rarely did—but that their widows and children should have something to fall back upon when they were suddenly removed by death. If he was not much mistaken very few of the working classes made that provision; and, if he spoke honestly on the subject, it was from this cause—not that they had not wages enough, but that they did not make the most of the wages that they had. He pointed out that the provident and temperate (who might naturally be expected to live the longest), who ought to have the most ample security in time of sickness from the benefit society to which they might belong, were generally those who were certain to be thrown upon the poor rate. If one of the effects of the Commission was to put a kind of stamp on sound societies, so that it might be known whether they could be really trusted, it would have a most advantageous effect. He trusted that before long Government and Parliament would take up the matter, and see that the working classes of this country were no longer deluded by bad societies.

Mr. BOOTH, a working man, said he belonged to a sharing-out club, called the Cranbrook Provident Institution, and he described its working as being upon sound principles.

The noble CHAIRMAN asked that the rules of the society might be sent to the secretaries.

The Rev. D. D. STEWART pointed out the evils which attended badly managed clubs. In the course of his experience, as a clergyman extending over nearly thirty years, he was

quite persuaded there was an evil which required removal. Over and over again he had to sympathise with artisans and labourers, whose clubs had failed when they had arrived at a time of life when they could not enter a new one. The healthy point of this meeting was that various ranks of society were bringing their minds to bear on the very same point.

Mr. BONHAM CARTER, M.P., asked for a show of hands of those who were members of friendly societies.—The result was that it was shown that a very great majority were members of some society.—He then referred to the commission about to be appointed, and said he apprehended that the great blot which was supposed to exist, and of which the merits and demerits were to be inquired into, was connected with Burial Societies, which did not prevail in this, as they did in manufacturing districts. With regard to Mr. Talbot's suggestion, he thought it was impossible for the Government to put a stamp on societies, so that they might judge if they were sound. He believed that the Government might be able to afford them the most valuable information possible, which, with a very small amount of education, they might be able to apply themselves. He referred to the manner in which the Odd Fellows had worked out their tables of sickness, which, he said, were not only invaluable to them, but exceeding beneficial to every society. What he wanted was that members of Friendly Societies should understand that the matter rests mainly with themselves.

Mr. HAMMOND (Aylesford), moved "That the Friendly Society Association, be requested to communicate with the Commission which this meeting learns her Majesty is about to appoint on the subject of the Friendly Societies, and pledge itself to co-operate with them as far as may be in their power, in giving information with regard to the state of the law, and its administration with regard to such societies."

Mr. WOOD (Aylesford), seconded the motion, which was carried.

Mr. Powell, a Forester, Mr. Povey, a member of the Friendly Society of Ironfounders, and Mr. Bramble, Secretary to a Maidstone branch of the Manchester Unity, deprecated any Government interference with the internal management of their societies.

Mr. BONHAM CARTER, in reply, said with regard to "legislative interference" the term was very much misunderstood, and he pointed out that he was present when the authorised representatives of the great societies met Lord Lichfield at his house, and begged his lordship to advocate a commission of inquiry. He believed that that inquiry would bring out the good qualities of the Odd Fellows and Foresters, that it would strengthen their hands, and enable them to sift out the chaff from the corn, and show that a certain class of societies were trading on what was not a solid foundation.

Votes of thanks were then moved.

THE CENTRAL VETERINARY MEDICAL SOCIETY.

The first ordinary general meeting of this society was held in the rooms, Lower Seymour-street, Portman-square, the president, Mr. Geo. Fleming, F.R.G.S., F.A.L.S., M.R.C.V.S., in the chair.

The PRESIDENT said that in the deliberations of the Council it had been wisely arranged that the evening of the first meeting of the society should not be occupied by an inaugural address. He had, therefore, but a few remarks to make, and they were of a brief character; for papers had been prepared for reading on subjects of great importance to the society and profession, which would claim their attention before anything he might say. They were met to inaugurate the establishment and opening of a Central Veterinary Medical Society, which had been resolved upon by the veterinarians of the metropolis in the most enthusiastic manner; and one of the greatest evidences of the zeal with which the subject was taken up might be accepted in the large attendance on that occasion. The society is following in the wake of a large movement which has been going on for some time in the provinces, closely associated with a gentleman whom he was glad to see present (Mr. Greaves, of Manchester), and although probably late in that movement, he (the president) felt that he could discern abundant elements for the widest extension and most powerful operation of the Metropolitan Veterinary Medical Society. It is well known that the position of veterinary science is not so high as it should be, nor is it appreciated by others as it deserves even now, under all its shortcomings; the position also of the members of the profession is sadly behind the requirements of the age. The Central Veterinary Medical Society will undoubtedly effect an improvement, and raise the status of both. It is a notable fact that by the rubbing together of minds, however talented, advancement must be made, and the opportunity has now arisen to cultivate this in an eminent degree. It is most probable that the position of the profession, as recognised by government and the various local authorities throughout the kingdom, is to be attributed to the undesirable state of things as now existing. Policemen, butchers, &c., are employed, to the exclusion of members of the profession, when they alone should be the competent authorities on all questions relating to the maladies of our domestic animals. They must remember that as members of the veterinary profession, they are scientific men; and as fellows of the Central Veterinary Medical Society, they are bent on scientific attainments. The objects of the society are manifold. By promoting the meeting together of the members of the profession, a mutual desire for advancement will be encouraged. They are solicited for their opinions, raised under great care and

attention, and there they will be sifted to discover their truth and applicability. The promotion and dissemination of sound doctrines forms an important feature of the society, and these will be gathered from personal observation, as well as scientific investigation and experiments, when necessary, under committees organised by and at the expense of the society. In the examination of conditions where probabilities are far greater than *bona fide* certainties, much difference of opinion necessarily follows. Each views the object of his search from a different point of view, and however widely these opinions may stray, they must not forget that each is entitled to respect. However much we may differ in opinions, it should always be our maxim to render the object subservient to the furtherance of the interests and aims of the society, and advancement of the science of veterinary medicine (applause).

Mr. F. J. MAVOR read a paper on "Thermometrical Observations on the Horse," instituted to ascertain the effects of certain medicinal agents upon the temperature of the body. The conclusions arrived at by Mr. Mavor in his experiments are as follow: The normal temperature of the horse, as taken at the rectum by one of Mr. Hawksley's Fahrenheit's thermometers, is from 99 to 100 degs. A rise of temperature, more or less, is the product of every disease. All medicines, whether given subcutaneously or by the stomach, produce a corresponding elevation of temperature. Although a very high temperature may exist as the result of disease, a dose of medicine will produce a higher elevation. Lastly, the same effects are observable in health as well as disease. The statements were supported by tabulated records of observations made with atropine administered subcutaneously to a grey mare suffering from abscess in the pectoral muscles, in which, upon every occasion during the existence of the injury, the exhibition of the drug in doses of a quarter of a grain gave rise to an increase of temperature; and when convalescence had been established, as evidenced by a decline of temperature to the normal standard, the exhibition of the same dose of the drug produced a rise of temperature, which did not subside until the third day.

The SECRETARY, Mr. G. Annatage, observed that these facts, as given by Mr. Mavor, are highly valuable to the veterinarian, inasmuch as the elevation of temperature caused by medicines given must not be confounded with the specific heat of certain maladies and diurnal variations that are found to exist. He had made numerous observations with the thermometer throughout the diseases of the lower animals, and in each case fresh evidences had arisen testifying the inestimable value that instrument is in the *clinique* of veterinary medicine.

An elevation of temperature he had found to take place after exercise, and even after food in health, when animals had previously been confined; and those allowed to go at large always exhibited a higher range in health than those confined to buildings could indicate; and it is highly important to bear these in mind when judging the amount of intensity of animal temperature as indicative of disease. His remarks had been published, which those interested could read and test for their accuracy. He could not say he had particularly noticed any specific elevation of temperature after the introduction of medicaments beneath the skin; but he had felt extremely puzzled to find, in cases of tetanus for instance, that after the use of powerful sedatives, as belladonna and hydrocyanic acid in combination, not the least diminution occurred. In the use of salines his observations agreed with those mentioned by Pereira and others, who state no diminution takes place, although the sense of coldness introduced is extreme. He urged attention to Mr. Mavor's observations, as well as to the use of the thermometer generally, as an instrument calculated to throw much light upon the nature and progress of disease, and means of much greater accuracy in diagnosis, not in ordinary diseases only, but in those of an occult and contagious character. Many of the tabulated statements of previous observers were said to be totally inaccurate, and, as far as the lower animals are concerned, the veterinarian has an extensive field before him; and facts collected therefrom may prove eminently useful to the medical man in human practice.

Mr. W. HUNTING referred to the discrepancies that are known to exist in thermometers from the same maker—two instruments, although said to be correct, registering different degrees in the same animal. He could refer to observations made by individuals in that manner, and which proved delusive and fatal. It is necessary to receive with caution new theories and results of few and unconfirmed experiments; they tend to overthrow the facts and teaching of the past, without providing the most proper and reliable substitute for them.

Mr. W. HUNTING read a paper on "The Growth and Structure of the Horse's Foot," in which the author endeavoured to show that, though convenience requires a division of the hoof into three elements—wall, sole, and frog—anatomy and physiology distinctly indicate that it is a continuous whole, and this totality applies as forcibly to the functions as to the structures of the hoof. After detailing the structural elements of the foot, Mr. Hunting went on to say: The hoof consists of horn fibres running parallel to each other, and of an agglutinating interfibrous horn. The papillæ or villi, covering the sensitive foot, secrete the horn fibres, and the surface between the villi secretes the interfibrous horn. The sensitive laminae not only afford attachment for the wall, but, like the sole, frog, &c., secrete horny matter. The whole sensitive foot is continuous, and must therefore produce a continuous hoof. Maceration in water enables us, with the aid of some force, to separate from each other the frog, sole, and wall, but not clearly. We never can obtain a definite division throughout without the aid of a cutting instrument. This partial separation merely shows where destructive forces are most powerful that the line of division is weaker than other parts. It is weaker merely because there is at such parts a relative want of horn fibres—an excess of the weaker kind of horn. The function of the hoof is to protect the sensitive foot, and to afford a firm basis of support to the animal. Every single part of the hoof acts in unison, and none in independence. The disconnected statements that "the sole will not stand pressure," "that the wall sustains the weight of the horse," or that "the heels are the weakest part of the foot," were said to be founded on narrow views of the functions of the hoof, in opposition to the fact that no one part of the foot can act properly unless other parts preserve their structural and functional integrity. A weak sole allows the wall to collapse; a weak wall allows the sole to become flattened; a small, wasted frog offers no obstacle to the contraction of the heels; and overgrown heels destroy first the form, and afterwards the function of the frog. Every element is equally important, and all work together and are dependent upon each other. He had a strong disbelief in alternate expansion and contraction of the foot during progression. As to the proper bearing surface of the hoof, he believes the border of the wall and portion of the sole immediately in contact with it take the primary bearing—that the frog is in-

tended to come in contact first with the ground, but then to yield under pressure, and allow the sustaining forces to fall on the harder and stronger parts. The bars in their integrity form a kind of internal wall, and prevent undue pressure of the frog. The arch of the sole, though taking a direct bearing on soft ground, merely allows a distribution of pressure through it on hard surfaces, just as pressure is distributed throughout all arches when applied only to the abutments.

The President said Mr. Hunting had gone deeply into the histological composition of the horse's foot. However, some of the statements might be disputed; and, as far as he had studied the subject, found they were at variance with his conclusions. It is difficult to decide what is the type of a perfect foot. In all countries various modifications and configurations are to be found, each in itself being a grand adaptation to the wants of the animal as well as to the external conditions; thus in low, marshy, countries, the indigenous breeds of horses have flat and wide feet. These would not sink so rapidly as small ones, nor so much as a hollow or concave foot. Again, in hot countries the foot is narrow, hollow, and hard as a means of withstanding wear; yet none of these can be taken as a type of the horse's foot generally. Influences of an external nature have the power of modifying the general characters of the hoof, and thus reduce it to one of a special kind and adapt it to surrounding conditions. Nevertheless, there are striking peculiarities which form principal features in all feet; for instance, the direction of the fibres of the wall are from above downwards; the plantar surface is circular; in front the hoof is conical, and in profile it is circular. In well formed feet, from which the frog and bars are removed, the outline is that of a circle, and the width is consonant with the height. Mr. Hunting had stated his belief that the frog stay is wrongly named; he (the president) did not think so, and in support of his belief had retained the term, while that part in front he had named the "toe-stay," as he believed it to be for the purpose, among others, to prevent the foot rotating in its horny covering. The supposition that the horny laminae are secreted by the sensitive laminae he thought may be readily disproved by an examination of the spaces between the papillary tubes in the cuticular cavity, in which ridges or eminences are to be found as the result of secretion from the coronary cushion, and prove to be the commencement of the horny plates. In cases of disease also abundant proof appears evident; for where the wall has been destroyed horny laminae may be seen to originate at the top and grow downwards. Maceration serves to separate each part of the hoof; but the horny wall and laminae do not admit of separation by such means, and in transverse sections of the wall epidermic cells may be observed to run in, to form the horny plates; but in disease states are modified. In health the intertubular or interpapillary substance is for the purpose of connecting the fibres of the wall and hoof, and preserve a degree of moisture and resiliency; in disease the hoof becomes dry and brittle, as a result of the modified action. At the junction of horny wall and sole is a white soft substance known as the white zone, placed there to prevent disjunction, but not secreted by the sensitive laminae which run down to and terminate it. In disease the sensitive laminae are to be observed covered with scales, which form horn, but is no integral part of the natural hoof; and likewise horny tumours formed upon the white zone or horny laminae are morbid productions, the result of diseased action at that particular part. They do not grow downwards from the top, as the nature of their construction thoroughly proves; besides, the cells of the papillæ are sent down vertically, while those in the laminae are horizontal; but no such orderly arrangements mark the adventitious productions of morbid action, while it is conducive in the healthy structures to an efficient resistance to wear and fracture. The functions of the frog have been much misunderstood, and the theories of expansion and contraction have been most disastrous to the proper treatment of horses' feet. He thought Mr. Hunting was quite right when he said the frog had no part in expanding the heels. It is, doubtless, to sustain weight at the back of the foot, to avert concussion, and protect the tendon and navicular joint above. The coronary cushion also admirably sustains weight, and receives and distributes initial concussion.

Mr. F. J. MAJOR considered the wall to be the true supporter of weight on hard surfaces, and as it is constructed is most efficiently capable of conducting jar upwards, and thence

causing it to pass off. He would not deny that upon soft ground the sole received pressure, but conceived that otherwise it is improper for it to do so.

Mr. T. D. BROAD contended that the sole can sustain a degree of pressure with benefit, and gave, as an instance, the fact of great improvement taking place in that part of thin shelly feet by the use of non-seated shoes. Among the evils in the practice of shoeing, he places the knife first, calkins second, and seated shoes last in order.

Mr. ALEXANDER LAWSON believed the crust should bear the greatest share of pressure (weight), frog next, and the sole last. It is an evil to nail on shoes tightly pressing upon the horny sole, as the many bruises and cases of suppuration which follow abundantly testify. He thought wrong principles had been embraced too long, and false conclusions had been arrived at, as well as absurd practices carried out. The frog is evidently an admirably adapted cushion to protect highly organized parts within. He approved of a modification of the Chaffier shoe—one somewhat stronger, but applied on similar principles, and he had found from experience that the feet, through the resulting sole pressure, were more prolific in horn, could resist shock much better, and the animal travel over the roughest macadam with ease and total absence of pain.

Mr. T. W. GOWING, senior, approved of pressure (weight) being borne by the wall alone. Continuous pressure on the sole had, in his experience, proved injurious.

The PRESIDENT urged that the sole of the horse's foot is intended by nature to receive pressure, and, as a proof of this, gave the fact that all animals in a state of nature present their soles to the ground, and in no single instance could he find that part absolved from taking part in weight-bearing. Another proof is derived from the undoubted fact that when caused to bear weight the animal goes well, and the feet greatly improve by it.

Mr. W. CLARKE referred to the alteration in form of horses' feet which succeeded to change of locality, when surrounding conditions were of an opposite character. He also contended that for the sole a degree of pressure is not only essential but can be borne, and gave examples from the use of leather soles, and stopping, and india-rubber cushions.

Mr. LAWSON gave further examples in proof of the benefit of sole pressure, particularly in the chronic states after laminitis.

Mr. HUNTING, in reply, said he thought Mr. Mavor had misinterpreted the statement of Mr. Broad. Pressure derived from a non-seated shoe, as recommended by Mr. Broad, does not extend to the major part of the sole, but to those portions within the circumference of the wall. As the sole represents

an arch and the wall its abutments, pressure is confined to the extremities or springings of that arch where the greatest points of resistance are presented. Pressure thrown on the frog is transmitted throughout the whole foot, and not through the coffin bone, as erroneously supposed by some; and one of the offices of the frog is undoubtedly to distribute and break the force of shock, which in its absence might be communicated to parts injuriously. As a proof might be given of the position of the coffin bone, and its elongation backwards by an amount of resilient substance, the lateral cartilages. It is a fact self-evident on a consideration of the anatomy of the parts. Shock given to the wall, as described by Mr. Mavor, transmitted through its fibres, cannot pass outwards as a material substance or of aeriform character. It is provided against by a harmonious arrangement of muscles and ligaments, with bones placed at convenient angles, all of which, engaged in a most wonderful principle of co-ordination, destroy the shock, which if communicated through an unbroken and straight column would be productive of evil results. With regard to the observations of Mr. Clark, tending to the belief that the feet of horses assumed opposite forms when removed to localities exhibiting specifically different conditions, he (Mr. H.) could not coincide. A flat foot is unnatural everywhere; it is designed that the plantar surface should be concave. Flat feet admit of unequal and inordinate pressure, and the result is absorption of the coffin bone and loss of shape (external form). He agreed with the president in the microscopical structure of the hoof, but had heard no opinion that agreed with his on the formation of horny tumours within the hoof, of which mention had been made before, nor yet one that decided the horny laminae are decidedly secreted by the coronary cushion. The argument that they are sent down from above when the wall is stripped off, he contended is without foundation, but rather that condition proves that the horn produced is direct from the sensitive laminae, as they are quickly covered by horn material. It is their natural function, he contended, and no structure can secrete in disease that which it does not in health. It is no proof that the wall and horny laminae are homogeneous, from the fact that no separation can be produced by maceration; the latter are, undoubtedly, secreted in great measure by the sensitive laminae; hence the abundant blood supply to the latter, which would serve no purpose if they were mere weight-carriers. Regarding the function of the frog, Lafosse had said it is to bear up the tendon above it. Tendons, however, are neither too long nor too short, always have the proper length, and require no such support. Its function appears to be to receive and distribute shock, and reduce its effects over the limb.

THE SUPPLY OF TROOP HORSES.

The experiences of a war, altogether unprecedented so far for slaughter, devastation, and ruin, must, of course, as its first great lesson, cause people to look at home. And we proceed accordingly to review the actual strength of our forces—our ammunition, our gnanery, our regulars and volunteers. In doing so much we come quickly to encounter an unpalatable truth. All the world over England is renowned as a nation of horsemen. We have the best of horses, and ours is the market to which of all others a man must come who wishes for the best. With the material then so ready at hand, it straightway turns out that our cavalry is miserably mounted; that a trooper is scarcely in any way the animal he should be, and that, if called into action, our more modern dragoon must as now horsed be a lamentable failure.

The reason for this is obvious enough. The Government has simply suffered itself to be outbid. For many years past other countries, with Prussia at their head, have been systematically buying up our most useful stock, and perhaps more particularly powerful well-bred mares, suitable for harness or road work. Many of our stores, as it were, like the Ridings of Yorkshire, have been gradually and thoroughly exhausted, and breeders have come

to confess that they have nothing to show you. The article is scarcer than ever, and the result precisely that which might have been anticipated. At regulation prices it is virtually impossible to procure the sort of horse really fit for the purpose; and while the cavalry of other Powers has been improving, ours has been deteriorating in something very like a proportionate degree.

Unfortunately the remedy is not so apparent, although there is by no means any lack of suggestion. Mr. Edmond Tattersall, the head of that well-known firm, recommends Horse-breeding Companies, or Government Studs. Mr. Spooner, at the Blandford Farmers' Club, would do away with Queen's Plates, and establish Government stud farms with the money—"not so much for the breeding of weight-carrying hunters and cavalry horses as for breeding sires and mares calculated to produce these." Mr. Francis Smith, of Grantham, would have "the Government and the Council of the Royal Agricultural Society of England join in setting aside a sufficient annual sum for the hire of a number of good-sized, bony, powerful, well made, thorough-bred stallions, having good action, for the use of each county." Other writers would go back to the use of nothing but Arabians; and a cor-

respondent of *The Field*, evidently with much experience of the countries he speaks of, would have us, either for home service or India, try three foreign markets—America, Hungary, and Egypt. “As regards the merits of the Yankee horses as troopers, in the year 1842 I saw a considerable number of these animals that came home in the 1st Dragoon Guards and the 7th Hussars from Canada. I rode a great many of them, and I say unhesitatingly that they were the best troop horses I ever rode in England—up to great weight, very shapely, and fine free goers, with splendid action. They were bought for about £25 each.” Again, “in Hungary, I should look for horses fit for light cavalry. Such animals in abundance can be bought for £25 to £30 each. To travel them to Trieste or some other Mediterranean port would not be expensive. They could be thence conveyed by steam to England; and for £40 at the very outside you would have a hardy useful animal, fit to take his place in the ranks in a fortnight, and capable of enduring any amount of exposure incidental to a campaign.” And as to Egypt, “the Turcoman breed run about fourteen hands in height, are hardy and stout little animals, and, although not so handsome as the Arab, possess much of his docility and fine temper. They are easily procurable for about five-and-twenty pounds each, and their conveyance *via* Alexandria to England would be neither difficult nor expensive. The supply of them for years to come would be ample.” There is something in this but not much. The seals of the Egyptian would, of course, put him out of the question, as it would be absurd to attempt to mount an English dragoon, accoutred as he is, on a pony. Then, the distance from America would render such a source of supply unavoidable the moment we get into “trouble,” as the same argument might be urged against any plan for remounting from the European Continent. Further, there is something not only impolitic but, so to speak, unnatural in the very notion of a horse-loving nation like the English seeking its cavalry from other shores. We might almost as reasonably go to Russia for men as to Hungary for horses.

Let us at the outset admit, as fair we must, that the Government and the people have alike neglected this subject; that we have permitted the country to be fairly drained without looking to the further production of the article. And this unquestionably has been the case. Wrapt up in the sleepy security of a long Peace our rulers have been content to put up with anything they could get at the price; while the manufacturer, tempted by long figures, has fairly sold himself out. At the same time our recovery should be anything but hopeless. Just now there are, perhaps, more well-bred good-looking horses to be obtained at a moderate cost than ever was known. The comparative collapse on the Turf, and the disturbances on the Continent, have alike induced to this, and there seldom has been a finer opportunity for establishing the breeding of horses on something like a system. And system it is, that above all things we want. In the first instance the regulation price must be raised, and in the next the country be encouraged to meet the demand. Mr. Tattersall invites us

to breed horses by the agency of Companies, but such a suggestion may be dismissed with a word, as we very much doubt if half-a-dozen sensible men could ever be found to invest capital in a concern for raising half-bred stock at any price. There is more weight in the proposition for a Government Stud, in considering which we should at once dismiss the prospect of its ever paying or becoming even self-supporting. On the Continent, in Prussia, Austria, and more particularly by the Third Napoleon, such establishments have been maintained at immense cost, and no question with some national advantage. The best kind of Government Stud after all, however, would not be so much that which supplied itself, but that, the rather, conducted to the co-operation of the country; and it is a very debatable point whether such agency might not be provided by some other means and at a less expense. As a nation the English are not prone to Imperial patronage or interference, and we should have but little faith in Mr. Spouner's prospectus for setting up each haras with one thorough-bred stallion, or seven-eighths-bred *ditto*, one or more three-fourths-bred *ditto*, one or more half-bred *ditto*—and so on. Not but that palpably the stallion is the animal to look to for improvement or re-generation. Farmers it is said should provide themselves with better mares, but at the low ebb to which the business is now come, it is clear that we shall have to start again with better sires.

And here we arrive at one of the most tangible points in the whole argument. Farmers, who, of all men, have the most opportunity for doing something in this way, have no doubt habitually neglected to breed their “nags” on any system. They cross anything they may happen to have with anything that may happen to come in the way; and for their benefit, as well as ultimately that of the country, the Government might do something in connection with the Agricultural Societies. The suggestion we here offer we have often offered before, although during such a discussion we do not hesitate to repeat it. The meetings of these Societies have now become amongst the successful gatherings of the day, as far more popular than the races, fairs, or feasts, and their most popular feature is the horse show. Let the Government be brought to recognise this growing fact. There are royal plates which horses run for, let there also be royal plates which horses shall show for. Let any Society of any calibre have at its disposal year by year a royal £100 for the best sound and stout thoroughbred horse to serve half-bred mares in the district during the season at a certain price. The award of such a premium would not only of itself give a character to the horse but ensure his owner from loss, and thus more men would be induced to look out for such an animal. The expense here might be easily reckoned up, say in the outset at some £1,000 or so. Whereas with farms, managers, sires, mares, servants, and so forth, it would be hard to calculate where the cost would end. The matter, no question, is a grave one, so directly bearing as it does upon the national safety. It is a business, moreover, in which the farmer is in some degree at least interested or “implicated,” and that the Royal Agricultural Society might very becomingly take up. It is otherwise pretty certain to come before Parliament.

THE VALUE OF OUR LIVE STOCK AND AGRICULTURAL PRODUCE.

Perhaps no better data could be afforded of the value and importance of Agriculture to this country, now that some of the Continental sources of supply are shut up, than an approximate estimate taken of the value of stock and agricultural produce raised for consumption. It is of course somewhat difficult to arrive at any very precise statement, for many of the figures and prices must necessarily

be assumed and conjectural. Until very lately it was impossible to determine with any degree of accuracy the amount of grain and provisions annually produced, the quantity stored, or whether a larger or smaller breadth of land had been sown in one season than another throughout the kingdom. The injury that resulted from this ignorance was not confined alone to the farmers, who were fre-

quently outwitted by importers and others flooding the markets, but all dealers in and consumers of agricultural produce were equally liable to sustain pecuniary loss therefrom, by making false calculations and depending upon erroneous estimates. The shipowner, the merchant, the corndealer, the baker, and the wheat-growers in our colonies and foreign countries all suffered from the absence of correct statistics as to the British consumption and production of grain. Within the last year or two, agricultural statistics have been collected for England and Wales, as well as for Scotland and Ireland, and we have thus some data to reason from, however imperfect or deficient they may be. Not only is it important that each country should know what quantity of agricultural produce raised on its own soil it can depend upon, but also what other countries can furnish in case of need. With respect to the United Kingdom, it appears that, while the people consume proportionately a larger quantity of wheat per head than formerly, the island itself produces an insufficient quantity to meet this increasing demand, although the cultivation of corn crops has been greatly extended in the last three years, the result no doubt of the higher prices ruling.

In the survey we propose taking, we limit our inquiry to Great Britain, including Scotland and Wales, but omitting the statistics of Ireland. Firstly, as to our hay crop. Exclusive of permanent pasture, meadow, or grass not broken up in rotation (and setting aside heath or mountain land), we have under clover, sainfoin, vetches, lucerne, and grasses under rotation in Great Britain, about four million acres, and two tons per acre may, we suppose, be taken as an average yield all round; for even if this be a somewhat high average, the produce of clover and ryegrass is often greatly more, and the aftermaths, or second crops, will bring it up to the average we have assumed.

Turning next to the corn crops, we find that there were returned last year as under wheat 3,688,357 acres, which at a yield of four quarters per acre for a good harvest, would give a return of, say in round numbers, 14½ million quarters. The tenth of this would be required for seed, for manufacturing, and other purposes.

Under oats we have an extent of 2,782,700 acres returned, and assuming that we get 48 bushels per acre, this will give us a total of 16,696,000 qrs., at an average, we will say, of 25s. a-quarter.

Of barley we have 2,251,480 acres, omitting as we have previously done, the odd hundreds, and assuming a yield of 40 bushels per acre for a good crop, we arrive at 11,255,000 qrs., worth about 35s. the quarter.

Under pulse crops we have 971,381 acres, and taking the general yield of peas and beans, all round, at 24 bushels to the acre, we get at 2,913,000 qrs., which we may calculate at 40s. the quarter. We leave out of our inquiry the yield of 65,000 acres under rye, merely adding that the total acreage under corn crops in Great Britain last year was 9,750,000 acres.

Turning next to root crops, we have 585,211 acres under potatoes, and if we take the yield as low as five tons per acre, this will give us 2,926,000 tons.

Under turnips, swedes, and mangolds we have 2,464,268 acres, but it is very difficult to form an estimate of the average yield and value of this crop, much of which is eaten off on the farm by stock; 145,251 acres under cabbage, kohl-rabi, and rape, and 14,344 under carrots, completes the average of the green crops, and for these we cannot fix a lower estimate than £5 an acre.

But there are two other agricultural crops that must not be passed over—flax and hops. The extent of land under flax in Great Britain is increasing, as 21,000 acres were returned last year, from which a yield of 600 lbs. of clean fibre per acre ought to be obtained, say, 5,620 tons, at £40 per ton.

The hop return is a more difficult matter to estimate with precision; the land under hops is now about 62,000 acres. We may calculate the yield for all general purposes at 6 cwt. the acre, which would give 372,000 cwt. for the total crop, worth—at say £4 10s. the cwt.—£1,674,000.

Our next estimate must be the transactions in live stock. Passing over the horses, of which there are necessarily large sales yearly, we may place on record that close upon one million-and-a-half horses were returned last year by occupiers of land; this is exclusive of another half million believed to be owned in the metropolis and other towns. We turn next to the live stock used for food, and the returns of these, in 1869, were 5,313,473 cattle, 29,538,141 sheep, and 1,930,452 pigs. In estimating their value, we must take their prices as sold by the farmer to the public for consumption, a totally different estimate to that of the value of yearlings or two-year-olds, as sold by one farmer to another. We cannot be far wrong, therefore, in taking the value all round at 35s. per head for sheep and lambs, £15 for bullocks and calves, and 25s. for pigs. This we consider is a fair approximate estimate, which, after all, can only be obtained. The prices for sheep and pigs can certainly not be considered too high an average. The difference in the relative number of sheep and cattle in Great Britain and Ireland, it may be remarked, is very great. To every head of cattle there are in Great Britain about 5½ sheep, and in Ireland 1¼ sheep. Cattle are, however, kept in larger numbers in Ireland, in proportion to the acreage, than in Great Britain. A small addition has to be made to the total live stock of Great Britain for the Channel Islands—Guernsey, Jersey, and the Isle of Man: in these there are in all about 10,000 horses, 37,000 cattle, 64,000 sheep, and 18,000 pigs.

It is generally considered that a fourth part of the entire stock is annually slaughtered for consumption, and we may therefore take it at fully 1,300,000 head of cattle and 7,250,000 sheep. In this running survey, and from the totals brought out we shall arrive at some fair notion of the aggregate value of the agricultural produce of the kingdom, although, in our estimate, we have, as already stated, not touched Ireland.

The appended summary gives figures of a magnitude not perhaps generally considered by the producer or consumer. It places the position and importance of the farming interest of the country in a prominent and clear light, when the total annual value derived from the soil is found to exceed £300,000,000 sterling. To this ought justly to be added straw, the dairy produce, milk, butter, and cheese, as well as poultry—all of which come under the head of farm produce.

Our calculations are founded on data sufficiently accurate for all general purposes. It is not essentially necessary that our estimates of yield, or assumed prices, should be precise, fluctuating as these necessarily do year by year under many influencing causes.

Wheat	14,750,000 qrs., at £2 10s.,	£36,875,000
Oats	16,696,000 qrs., at 1 5s.,	20,870,000
Barley	11,255,000 qrs., at 1 15s.,	19,671,000
Beans and peas ...	2,913,000 qrs., at 2 0s.,	5,826,000
Hay	8,000,000 tons, at 5 0s.,	40,000,000
Potatoes	2,926,000 tons, at 3 0s.,	8,778,000
Turnips, & other } root crops	2,624,000 acres, at 5 0s.,	13,120,000
Flax and hops ...	83,000 acres,	1,898,800
Cattle	5,313,473 head, at 15 0s.,	79,702,095
Sheep	29,538,141 head, at 1 15s.,	51,691,746
Pigs	1,930,452 head, at 1 5s.,	2,413,065
Horses	1,500,000 head, at 20 0s.,	30,000,000

£310,845,706

THE CENTRAL FARMERS' CLUB.

THE FEN COUNTRY.

The first meeting for discussion, following the usual autumnal recess, took place on Monday evening, November 7, the chair being filled, in the unavoidable absence of the Chairman for the year, Mr. J. Howard, M.P., by Mr. Charles Howard. The subject appointed for consideration was "The Fen Country," the introducer being Mr. A. S. Ruston, of Aylesby House, Chatteris.

The CHAIRMAN said: Gentlemen, I am sorry to say that I appear before you this evening in consequence of the indisposition of my brother, who is recommended to keep comparative quietude for the present. I am glad to see so many gentlemen assembled, at this the first meeting, as it is generally called, of our session. Since many of us last met, the agriculturist, of this country have passed through a very trying time, one of the most trying that they have ever experienced (Hear, hear). Indeed I may say that, so far as the graziers are concerned, many hundreds of thousands of pounds have been sunk, and, upon all the light corn-growing districts of the country a very serious deficiency has been witnessed. I have no doubt that upon all the deep soils a good wheat crop will be realized, and I think I may say the same of the barley and the bean crops. ["No; not the bean."] Well, we can only speak, you know, from our own observation, and I do not mean to say that in every case the result will be what I have stated (Hear, hear). The farmers of England have met to a considerable extent, and no doubt their condolences with each other have been cordial and frequent. I hope that better times are in store for us; but at present there appears but little prospect of any great profit being realized in the pursuit of agriculture (Hear, hear). The subject fixed for discussion this evening is "The Fen Country." That district presents, perhaps, very few attractions; but many great scientific achievements have been wrought in that part of our land. Though unattractive in a rural aspect, in an agricultural point of view it occupies a very important place in the agriculture of this country. Had my brother been present he would probably have told you that during his visit to Ireland he was very forcibly reminded of the Fen country of England; and that had the same amount of labour and of capital been applied to the marshes of Ireland as have been expended on those of England, similar results would have been realized. Mr. Ruston has undertaken to bring this subject before you this evening. The drainage of the Fens will, as you may suppose, form a rather important part of his paper. It may take up more time than some of you may think desirable; but from what I know of Mr. Ruston's literary attainments I feel quite sure that a treat is in store for you. Without saying more I beg to introduce Mr. Ruston (cheers).

Mr. RUSTON then read the following paper:

Once amid the darkness and confusion of chaos was heard the authoritative mandate of Omnipotence: "Let the waters under the heavens be gathered together unto one place, and let the dry land appear; and it was so." From the earliest times land and water have seemed to be in antagonism. The ever-recurring encroachments and recessions bear ample evidence of this. The great tide-wave has defied all opposition, and has claimed as its own whatever it willed; twice every day carrying out to sea by slow but sure and steady progress the once fruitful field which had yielded to man's culture, and depositing elsewhere for other man's benefit, those stolen elements of fertility: and it has alike taxed all man's energy and ingenuity to curb and restrain old Ocean's power, and to retain surely and well his gifts—and these are not merely the histories of the past, but they live on, and are the every-day processes of the present. To-day, to some extent, are these changes being repeated, and are gradually, but constantly, reforming the boundaries of our own sea-girt isle. The Fen country has a history peculiarly its own, and we must look beyond this slow, although every-day, action of tide and wave for some more violent convulsion of nature—some grand up-

heaval and depression—for the solution of how the Fens came to be. That there was something analogous to our Fens in the earliest times we gather from one of the oldest books extant—a book supposed to have been written more than 3,000 years ago—wherein it is said, "Behemoth . . . lieth under the shady trees, in the covert of the reed and fens. The shady trees cover him with their shadow; the willows of the brook compass him about." The reed and the willows, twin-signals of Nature's distress, sufficiently indicate the fenny nature of their homes. But when and how these Fens, which run from Cambridge to Lynn and Peterborough, and stretch far away into Lincolnshire, in their horse-shoe form, resembling a great bay scooped out of the surrounding hills, became fens, we have no historic record to tell us. Kingsley says, "to describe how the Fen came to be, one must go back, it seems to this writer, to an age before all history; an age which cannot be measured by years or centuries; an age shrouded in mystery, and to be spoken of only in guesses. To assert anything positively concerning that age, or ages, would be to show the rashness of ignorance. 'I think that I believe,' 'I have good reason to suspect,' 'I seem to see,' are the strongest forms of speech which ought to be used over a matter so vast, and as yet so little elaborated." It is not my purpose to ask you to follow me into a maze of guesses and conjectures, nor do I intend to lay down any geological hypotheses to account for the phenomena which on every side so forcibly present themselves. But although I attempt no explanation of the different processes which in the far past were so surely carried on in Nature's great laboratory, building up that which we see, and which so puzzles us to-day, I would, however, invite your attention to some of those evidences lying embowelled deep down in the earth below the peat and the bog, which go so clearly to establish the fact that these lands were not always the home of the eel and the wild fowl and the birth-place of ague and fever. Dugdale, writing many score years ago, tells us that in Marshland, about a mile to the west of Magdalen Bridge, in erecting a sluice, there was discovered at a depth of 17 feet, furze bushes and nut trees pressed flat down, with nuts sound and firm lying by them, the bushes and trees standing in solid earth below the silt which had been brought up by the inundations of the sea. He also tells of a large fish, nearly 20 feet long, discovered near Conington, lying in perfect silt six feet below the superficies of the ground, and as much above the then level of the Fen, and which by its long continuance in that kind of earth had become petrified, and that divers of the bones of the back and other parts were preserved by Sir Thomas Cotton, bart. And at the present day trees of varying kinds and sizes are constantly being discovered. The continued subsidence of the Fens through drainage, and the system of deep cultivation so generally prevalent, bring them within reach of the plough; and a deeply-ploughed field (and by way of parenthesis, I should say some of these are ploughed from 18 to 30 inches deep, with 8, 10, or 12 horses, as the case may be) oft-times resembles a mighty disinterred forest. Oaks, yews, saplings, and nut trees, with nuts and even leaves, fresh and perfect, by their side, are not unfrequently found. Some of the oaks are of marvellous dimensions. About thirteen years ago one of these grand old trees was removed from a field on a farm only a few miles from Chatteris. Its length was 109 feet, and its diameter at the bottom end 9 feet 2 inches, and at 85 feet from the ground 4 feet 2 inches. Only the top 24 feet were sound, the remainder being decayed and hollow. The cost of its removal was something considerable, amounting to several pounds. This is just a sample tree, and sufficiently indicates the size to which some of these noble forest-kings attained. These trees are commonly found imbedded in the clunch or peat (both vegetable) subsoil, resting on the clay; and the water oozing through these black vegetable products being absorbed by the oaks, and coming in contact with some che-

mical properties they contain, gives them a thorough fen dye, the outer portion being well nigh black, and the interior a dark dirty brown. The action of this fen water upon them not only imparts a colour, but also a hardness, which makes them for all building purposes, where not exposed to the changes of the atmosphere, almost as enduring as time itself. I have in my hall two chairs made from oaks dug up on my own property; the blackest portions were selected, and being polished, they are now as black and as hard as ebony, which they much resemble. A few years ago, when a steam engine was about to be erected for draining certain lands, in which I was then interested, it became necessary to dig a large deep pit in which to construct the trough for the water-wheel to work in. I was present at frequent intervals during the excavations. After passing through the ordinary surface soil and peaty subsoil, and a bed of soft buttery clay about 3 feet in depth, we came upon another soil and subsoil, some 3 or 4 feet in thickness, and beneath this a second bed of clay. The whole of this second stratum was much harder and stronger than the one above it; partly, perhaps, but not altogether, the result of compression. The clay especially was very stubborn, utterly unlike that in the upper stratum, but rather resembling that found in the heavy upland districts. But what I wish more particularly to remark is, that on this lower clay-bed we came upon a large oak tree, equal in size and similar in appearance to what are found resting on the upper clay-bed. From these facts we may reasonably infer that these low-lying, oft-submerged fen lands were not *always* as they have been during the historic period, and as they still are, but time was when they occupied a much higher level, probably as high as the surrounding hills of Cambridgeshire and Huntingdonshire, and owe their depression and present position to one or more terrible convulsions of nature. For it is a well-ascertained fact that oaks like those I have described will not grow, and by no ordinary or extraordinary methods of culture can be made to flourish on low, marshy, water-logged soils like the Fens. The conclusion then seems inevitable that when they grew the land was not fen, but the Fens are an after-growth and formation consequent upon favourable and altered circumstances. But these great convulsive throes of nature, these grand upheavals and depressions, these changes from land to water, and from water to land, the evidences of earth's internal discord, have been experienced elsewhere than in the Fens. Ovid, in his *Metamorphoses*, says (I give it in English, as translated by G. Sandis):

"Where once was solid land seas have I seen,
And solid land where once deep seas have been;
Shells far from sea, like quarries in the ground,
And anchors have on mountain-tops been found.
Torrents have made a valley of a plain,
High hills by deluges borne to the main;
Deep-standing lakes sucked dry by thirsty land,
And on late thirsty earth now lakes do stand."

The quiet seclusion and comparative inaccessibility, except by sea, of the Fen country, rendered it a favourite resort for those who, professedly wearied and tired of the world's vanities and pleasures, desired to consecrate themselves to a higher and purer service. These devout aspirations led to the formation of religious houses all over the country. We find them at Ely, Peterborough, Thorney, Ramsey, Crowland, Spalding, Chatteris, and elsewhere. Each has its own history, and tells of its long roll of saints, its heaven-blessed miracles, and its many acts of devoted piety. Glastonbury may proudly boast of its "Holy Grail," which Tennyson has inspired with immortality, by his thrilling and inimitable verse; but Ely, too, fondly tells of the health-restoring, life-giving and life-destroying miracles wrought at the tombs of St. Etheldreda, her foundress and benefactress, the canonized of Rome, and of her chaste fellow saints, of which no Laureate has yet sung. We are told that sixteen years after St. Etheldreda's interment, her body was exhumed by her devout sister and successor for more appropriate burial, when the discovery was made that the linen which engirdled her was still incorrupt, and "cured many diseased people with the touch thereof," and that from the vacant tomb "issued a fountain of pure water, which remaineth." For nearly nine score years her ashes, after their more honourable interment, rested in peace. But the restless Danes, sources of sad trouble and disquiet to those godly people, once more invaded their island home, when one of these dreaded pagans, more inhuman than the rest, beholding

the tomb, and inspired with insatiable cupidity, supposing that not only the body of the saint, but also vast hidden treasures were there entombed, had the temerity to raise his pickaxe and strike a hole into its side, whereupon, says the historian, "through the divine vengeance his eyes presently fell out of his head, so that he died. With which judgment the rest were so terrified, that they durst not presume to meddle there any more." We read elsewhere that this religious house at Ely "had had many good penmen, and yet, it was said, that they had failed to record all the miracles that had been wrought at these tombs." I shall not attempt to repair that omission. The Isle of Ely has been not inaptly designated the "Camp of Refuge." William from Normandy had invaded the country; Harold, last of the Saxon kings, was slain; province after province had yielded to the claims or succumbed to the overwhelming forces of the Conqueror; on all sides was war, devastation, and death. Old Saxon abbots and heads of religious houses had one after another plighted their troth to William, vainly hoping to retain their dignities and emoluments, and to be able to afford protection to their Saxon brethren, and to preserve them from the dreaded Norman persecution. Amongst these was the Abbot of Crowland, but amongst these was not Thurstan, my Lord Abbot of Ely. He was not prepared, under any pretext, to ignore the many obligations he owed, and the fealty and friendship he had sworn to Harold. His island home he felt was alike secure from the iron hoofs of William's cavalry and from the incursions of his infantry. From his Abbey tower he saw all around him a country made defensible by nature, and round about him he looked upon a brave, courageous, and devoted people. One old writer says, "This little Isle of Ely is environed with fens and reed-plecks unpassable; so that they feared not the invasion of the enemy." That sense of security which encouraged and assured Thurstan exerted a like influence upon others far away, and the dispossessed from every quarter hastened with all good speed to the safe retreat and generous hospitality of the Camp of Refuge. Nobles, warriors, bishops, abbots, and others, to escape Norman persecution, and to retain their Saxon liberty, rushed in such overwhelming numbers, that the place became overstocked, and the new-comers were driven, many of them, to seek shelter in tents and huts placed on the dry hillocks around. This stream of guests, with empty purses and empty stomachs, struck the Chamberlain who kept the accounts, and the Cellarer who had charge of the wine-buts, with terror and dismay; but good, generous Thurstan gave them a cordial and hearty welcome, and fed them right nobly in his profusely and delicately supplied refectory. Among all the religious houses none could vie with Ely in the Lenten season. Its own waters teemed with fish, and being open to Lynn, supplies of salt-water fish and continental wines were easily procurable. It has been said their fish-fasts were feasts. And while the brethren of other houses grew thin, these fasting monks of Ely grew fat, for there was nothing in the land to compare with these fish dinners, these banquets in Lent. And they were not unmindful of the old proverb, which says, "Good eating demands good drinking." If history can be trusted, it seems pretty conclusive that these devoted saints were never so oppressed and overwhelmed with an all absorbing concern for the soul as to become in any sense forgetful of the claims and necessities of the body; but it may with great truthfulness be said they fared sumptuously every day. But these days of fasting festivity and joyous gratulations were the precursors of days of darkness and sore troubles. Trials, many and bitter, awaited them. William's rapid and brilliant successes were inspiring him with confidence, and urging him on to further and still more startling victories. Soon his eye turned wishfully to the Fens, and despite all their natural defences, he daringly determines to venture an assault and test their vaunted impregnability. Hereward, Lord of Brunne, the wayward and dissolute son of Leofric, Earl of Mercia, by Godiva of Coventry renown, who whilst in his teens had been exiled by Edward the Confessor, and who had now returned a wiser man, was appointed chief in command, and chosen to direct the defence. His great deeds of valour, and his many noble exploits, had won for him a well-merited reputation. His brain-power and his arm-power were alike the admiration of all. True envy, that withering social curse, excited by his manly and heroic deeds of daring, had once jeopardised his life. Skilful in tactics,

clever in strategy, wise in counsel, quick in perception, nothing in effort, and bold as a lion in fight, he was eminently fitted for the position assigned him. Hastening to Ely to work out his designs, and to make the Camp of Refuge that great fact which it afterwards became, his life was sought by Earl Warren, whose brother he had slain. Ambushes on the borders of the Fens were laid for him, and attempts cunningly made to entrap him; but he, conscious of the plot, frustrated the Earl's designs, and drew from him those words of bitter rage, but of unquestioned truth, "Oh that I had that devilish fellow here, I would certainly torment him to death!" Hereward, quick and ready, replies, "If we should happen to be so fortunate as to meet alone in any fit place, you would not wish me on your feeble hands, nor like well of my company;" and, gently stooping, lets fly an arrow which unhorses the Earl and alarms his servants. Meanwhile Hereward and his companions pursue their journey, and that same day enter Ely, being received with great honour and hearty greetings by the Abbot and his monks, as also by Edwin, Earl of Leicester and Morecar, Earl of Warwick, two of the noble fugitives who had found an asylum there. The tidings from Ely as they reached William aroused his anger, and he resolved upon an immediate assault. He gathered his forces together at Aldreth, and there collected stores of wood, stone, faggots, trees, large pieces of timber, fastening them together with cowhides; and further to facilitate the passage across these Fen bogs and swamps, caused beasts to be killed and their skins filled with air like bladders. Inspired with greed for the gold and the silver supposed to be treasured up in the Isle, his soldiers rushed madly forward; the bridge yielded beneath the pressure, and all, except a few of the hindmost, who by throwing away their weapons, managed to struggle through the mud and escape, were drowned or swallowed up in the depths of the Fens—one man only, Beda by name, getting into the Isle. Beda, having received the hospitalities and civilities of the place, was permitted to return to the King's camp, where he recites before William and his nobles a wondrous tale. He tells of the impregnability of the Isle, its huge waters and fens compassing it about like a strong wall; of the utter indifference of its inhabitants to the siege—the ploughman keeping to his plough, the hunter to his sport, and the fowler to his work; of its teeming supplies, consisting of domestic cattle, harts, does, goats, hares, eels, pike, perch, roach, royal fishes, geese, bitterns, sea-fowl, herons, ducks, and all in abundance. The fighting men, and especially Hereward, receive a rich meed of praise, much to the annoyance of Earl Warren, who insinuates that Beda has been bribed to make these representations. But William repels these insinuations, and with a noble generosity refuses to hear these valiant men evil spoken of, and commends their courage as above that of his own men, and feels inclined to make peace with them. From this his nobles dissuade him, urging that such a concession would be a precedent which might be fraught with great evil. The King angrily replies, expressing his inability to conquer the people, the place being naturally so defensible. Ivo-Taillebois, indignant at the King's timidity, reminds him of the old Norman witch, and suggests the desirableness of enlisting her services. For, says he, "by her art she would soon destroy their whole strength and places of defence, and drive them out as cowards from the island." This suggestion secures the cordial and hearty sympathy of his nobles; and at length, being strongly urged to it, William yields. Secrecy is enjoined lest mischief should result, and the old woman is privately sent for. Preparations on a gigantic scale are forthwith commenced; the new idea inspires new hopes. Forces numerous and powerful, and materials abundant and diversified, are once more collected at Aldreth. Towers are erected, earthworks thrown up, and engines of war arranged. The old witch mounts the highest eminence, and with vehemence pours forth that volume of words, and exhibits those mad frantic signs, the spells of witchery, which are to ensure the success of the assault on the morrow. But Hereward, wise and crafty, by skilful manoeuvres and at great personal risk, contrives to discover the intentions of his foes, and just as the old witch was beginning with her third spell, he causes a fire to break out in the reed beds, which, despite all opposition, rushes on madly and with irresistible fury towards the Norman camp. The crackling of the willows, the blaze of the reeds and other dry vegetable substances, as the fire goes leaping forward, strike the whole army with terror and dismay. Thus terrified and awe-stricken,

they beat a quick retreat, and in wild confusion grope their way amid dense clouds of smoke, not knowing whither they go, whilst to the windward from Saxon bows comes whizzing a volley of bristling arrows. The old witch is left to perish miserably alone. William narrowly escapes with his life, and the whole army, in modern parlance, becomes demoralised. For seven long years did these Fens successfully resist invasion, but at length treachery within and strategy without secured them to the Normans. Hereward made his peace with the Conqueror, and returned to his ancestral hall at Bourne. Hereward had an only daughter, who became the wife of Hugh de Evermere, Lord of Deeping, whose only child and daughter married Richard de Rulos, Chamberlain to William the Conqueror. The said Richard de Rulos not only attended to the ceremonies incident to Court life, but devoted himself with great zeal and energy to the pursuits of agriculture. On his uplands, the lands above the flood level, he was renowned for his good tillage and his successful breeding of cattle; and on his low lands he projected and carried out, at immense cost, great works of reclamation. By constructing strong and substantial banks to prevent inundations from the Welland, to which they were constantly subjected, he converted those low-lying grounds about Market Deeping (which signifies a deep meadow), and which before were deep lakes and impassable fens, into fruitful fields and pastures, and we are told "he reduced the most humid and moorish parts thereof to a garden of pleasure." We are likewise told that "by the like means of banking and draining he also made a village, in the very pan of Pullington, and by much labour and charge reduced it into fields, meadows, and pastures, which is now called Deeping St. James." All honour to Richard de Rulos! and, with Kingsley, we would write on his tomb, "Here lies the first of the new English, who, by the inspiration of God, began to drain the Fens." The Romans, bringing with them a higher civilization, performed various works of drainage, and made roads, and in other different ways sought to improve the fen country, and numerous traces of their skilful and intelligent labour are still discernible. The religious houses expended considerable energy, and not a little wealth, in their efforts to bank out the waters, to keep the outfalls well open, and in other practical works of drainage; for William of Malmesbury, writing in the eleventh century, represents Thorney as "a very paradise, for that in pleasure and delight it resembleth heaven itself." This Paradise was subsequently lost, but how far through neglect of outfalls and other works, and how far from uncontrollable causes, I shall not venture an opinion. Suffice it to say it was lost, and it has only been during the present century that it has been fully regained. In the reign of the 7th Henry, John Morton, Bishop of Ely, made a channel from Standground to Guyhirn, still called Morton's Leam, which Dugdale says was "a work certainly of singular consequence, not only for the quicker evacuation of the overflows of Nene, but for conveniency of carriage from Peterborough to Wisbeche." The drainage of the great watery waste appears never to have been lost sight of, and yet for centuries no great effective works were undertaken, and no specific legislative measures, relating exclusively to the Fens, were passed. To protect the country from the ravages of the sea, and to maintain water-courses for purposes of drainage, appear to have been considered duties devolving on the sovereign and his subjects; and when necessity arose, or occasion required it, the Crown granted a Commission to inquire into and remedy whatever faults were found to exist. These Commissions were sometimes, justly or unjustly, deemed oppressions. Hence we find in Magna Charta it is provided, "No town nor freemen shall be distrained to make bridges or banks, nor should any banks be defended, but such as were in defence in the time of King Henry, our grandfather, by the same places and bounds as they were wont to be in his time." In 1531, in the reign of Henry the 8th, the law known as "the Statute of Sewers" was passed. From that time Commissions of Sewers were occasionally granted, and some partial works were done under them in the "Great Level," as it was termed, but nothing of a permanent character. In 1570, in the thirteenth of Elizabeth, a more extended Commission was granted to Sir William Cecil, son of the first Lord Burleigh, and ten other influential persons, who on the 9th of June of the same year sat at Peterborough, but nothing in reality was accomplished by it. For thirty years no further progress was made, but in 1600, in the forty-third of Elizabeth, what was called "the General Drain-

age Act," was passed. This Act was intitled "An Act for the recovery of many hundred thousand acres of marishes, and other grounds, subject commonly to surrounding, within the Isle of Ely, and the counties of Cambridge, Huntingdon, Northampton, Lincoln, Norfolk, Suffolk, Sussex, Essex, Kent, and the county palatine of Duresme," the preamble whereof runs thus: "Whereas it is apparent to such as have travelled in the execution of Commissions of Sewers in the isle and counties aforesaid, that the wastes, commons, marishes, and fenny grounds there, subject to surrounding, may be recovered by skilful and able undertakers; whereby great and inestimable benefit would arise to her Majesty, her heirs and successors, disburthening her Highness of many chargeable banks and works of sewers, within those surrounded grounds, as the increase of many able subjects by habitations being there erected, and in like sort profitable to many of her Highness's subjects, both bodies politic and corporate, who have estates of inheritance and other interest within the same. And for that the draining and making dry and profitable of those surrounded grounds is chiefly hindered; for that the greater part of them are wastes and commons, subject yearly to surrounding, wherein divers have common by prescription by reason of their resiancy and inhabitation; which kind of commons, nor their interest therein, can by the common law be extinguished or granted to bind others which should inhabit there afterwards. And in that also it appeareth, that the Commoners, in respect of their poverty, are unable to pay the great charges to such as should undertake the recovery of the same." It then proceeded to give power to the owners of these lands to make contracts with such persons as would undertake the draining, such contracts, and conveyances thereupon, being "made good and available in law against the lords of the soil and all other the Commoners therein." This Act was passed so near the close of Elizabeth's reign that little was done; but her successor had scarcely ascended the throne ere he resolved to attempt the reclamation of the Great Level, and in the second year of his reign we find James I. appointed the first Commission for this purpose, but without any great practical results. Successive Commissions for seventeen years were equally fruitless. Schemes were projected, expensive views taken, plans decided upon, but the works did not proceed. Opposition was aroused, and disputes between the country and the Commissioners were bitter and constant, and the King was petitioned again and again to restrain acts of supposed injustice; law suits were commenced both against the Commissioners and those in their employ; everything to retard, and nothing to advance the work. So excited and infuriated did these Fen men become that they could find relief only in song. Here is a specimen, called "The Powtes Complaint":

Come, brethren of the water, and let us all assemble,
To treat upon this matter, which makes us quake and tremble;

For we shall rue it, if't be true, that Fens be undertaken,
And where we feed in Fen and Reed, they'll feed both Beef and Bacon.

They'll sow both Beans and Oats, where never man yet thought it,

Where men did row in boats, ere undertakers bought it;
But, Ceres, thou behold us now, let wild oats be their venture,

Oh let the frogs and miry bogs destroy where they do enter.

Behold the great design, which they do now determine,
Will make our bodies pine, a prey to crows and vermine;
For they do mean all Fens to drain, and waters overmaster,
All will be dry, and we must die, 'cause Essex calves want pasture.

Away with boasted rudder, farewell both boots and skatches,
No need of one, nor th' other, men now make better matches;
Salt-makers all and tanners shall complain of this disaster;
For they will make each muddy lake for Essex calves a pasture.

The feather'd fowls have wings, to fly to other nations,
But we have no such things to help our transportations;
We must give place (oh, grievous case!) to horned beasts and cattle,
Except that we can all agree to drive them out by battle.

Wherefore let us intreat our ancient water nurses,
To show their power so great as t' help to drain their purses;
And send us good old Captain Flood to lead us out to battle,
Then twopenny Jack, with scales on's back, will drive out all the cattle.

This noble Captain yet was never known to fail us,
But did the conquest get of all that did assail us,
His furious rage none could assuage; but to the world's great wonder,
He bears down banks, and breaks their cranks and whirligigs asunder.

Good Eolus, we do thee pray, that thou wilt not be wanting,
Thou never saidst us nay, now listen to our canting;
Do thou deride their hope and pride, that purpose our confusion,
And send a blast, that they in haste may work no good conclusion.

Great Neptune (God of Seas) this work must needs provoke thee;

They mean thee to disease, and with Fen water choak thee;
But with thy mace do thou deface, and quite confound this matter,
And send thy sands to make dry lands, when they shall want fresh water.

And eke we pray thee, Moon, that thou wilt be propitious,
To see that nought be done to prosper the malicious;
Though summer's heat hath wrought a feat, whereby themselves they flatter,
Yet, be so good as send a flood, lest Essex calves want water.

James, wearied and annoyed by these repeated failures, and incensed by the determined and resolute opposition everywhere met with, said "that for the honour of his kingdom, he would not any longer suffer these countries to be abandoned to the will of the waters, nor let them lie waste and unprofitable;" and to ensure success and promptitude of action, he at once declared himself the principal undertaker. How true it is "Man propheth and God disposeth;" for just at this important juncture, when success seemed so well assured, his attention is diverted from the Fens to the Continent, and his daughter's husband earnestly implores him to aid in the restoration of his forfeited dominions. These family and other troubles effectually stay his drainage schemes, and he bequeaths to his successor this gigantic undertaking. Until the fifth year of his reign Charles I. appears to have taken no decided action towards freeing these submerged lands from the waters which desolated them; but on the 6th January, 1629 a Session of Sewers was held at Huntingdon, which, in its wisdom decreed that a rate of 6s. per acre should be laid on all these "marsh, fenny, waste, and surrounded grounds," in order to their draining. But notwithstanding all this show of business, nothing was done. The tax was not collected, and the works were not proceeded with. In the month of September of the following year another Session of Sewers was held at Lynn, when something more definite and hopeful was accomplished. There were nearly fifty Commissioners present, and they entered into a contract with Sir Cornelius Vermuyden, a Dutch engineer of great skill and experience, to drain the Great Level, offering to give him as his recompense for the works undertaken 95,000 acres of the surrounded lands. I would here observe the word *surrounded*, so frequently used in these old documents, means simply *flooded* or *inundated*. Once more the prize so rarely gained tantalizingly eludes the grasp. Prejudice, deep-rooted and omnipotent, impels these Fen men to a course of determined hostility, and they resolutely refused to ratify the contract sanctioned by the Commissioners, not from any intelligent conviction of the insufficiency or unsuitableness of the scheme itself, but simply and solely because Vermuyden was an alien born. Having done this, and upset the contract, they then turn round and do a very wise thing. They become "humble sniters" to Francis, then Earl of Bedford, an owner of some 20,000 acres in the Level, and solicit him to undertake the work. This request is supported by the Commissioners, and the Earl assents. On the 13th of January, 1630, another Session of Sewers was held at Lynn, when the contract, commonly known as the "Lynn Law," was made. In this law the Earl engages to commence the work forthwith, "and to finish it, so as to make the grounds fit for meadow, arable or pasture, within the compass of six years from the 1st of October following." He is to receive 95,000 acres of the drained land, these whole 95,000 acres to be liable to the first finishing of the work, and 40,000 acres, part of the same, for its subsequent maintenance. Provision was also made that when 30,000 acres should be finished, the Earl should have his proportion of it. The Earl enjoyed the confidence of the country. His fortune was ample, and his character commanded universal esteem. The opposition which had so successfully

thwarted all previous efforts to drain the Level was no longer experienced. Unanimity prevails, and the whole country gathers around the Earl, and proffers its assistance. In the following year the Earl and thirteen other gentlemen of rank and wealth interested in the country, who had become associates with him in the adventure, entered into an agreement among themselves, commonly known as the "Indenture of 14 Parts," whereby the undertaking was divided into twenty shares, and the adventurers were for each share to sustain proportional shares of the charges. On the 13th of March, 1637, the Earl and certain other persons were by letters patent incorporated. This charter of incorporation gave them certain other powers, besides making them guardians of all the waters, rivers, and fens within the precincts of the Level, such as the building of churches and chapels and making churchyards, "in such fitting places of the said Fens as they shall judge meet, and to cause them to be consecrated by the bishop." This breath of royal favour inspired the Earl and his co-adventurers with spirit, and they vigorously pushed on the work; and on the 12th of October, 1637, the whole Level was adjudged drained, and the 95,000 acres of land were set out for the Earl's recompense. This ray of kingly sunshine unhappily was only the prelude to the approaching storm. The cloud was gathering thick and portentous, and was soon to burst on the noble band of adventurers. For on the 14th of April, 1638, at a Session of Sewers held at Huntingdon, the Earl of Bedford's undertaking was adjudged defective. The King, professing a great desire to make these 400,000 acres in the Great Level good winter as well as summer lands, which he considers the Earl has failed to do, consults Sir C. Vermuyden and others competent to advise him; and at a Session of Sewers held at Huntingdon on the 15th of July causes himself to be declared the undertaker, the bargain being that he shall have not only the 95,000 acres which had been formerly set out for the Earl of Bedford, but also 57,000 acres from the country additional. But in consideration of the great expenses incurred by the Earl and his participants in their efforts to perform the undertaking, he was to receive 40,000 out of the 95,000 acres. Charles, like his royal predecessor, when proclaimed undertaker, projects grand works, and pictures to himself great and speedy results. One of his pet schemes was to build an eminent town in the midst of the level at the village of Manea, which was to enjoy the euphonious name of Charlemont, he had himself drawn the designs, and intended making a navigable stream from this chosen spot to the Ouse. But, like James too, just as his plans were ripening, and he was preparing to take prompt and active measures to accomplish his purposes, his attention is diverted from the Fens to other more important and disastrous scenes, which finally result in the loss of his crown and of his head. National disquietude was inimical to Fen interests, and the works which the Earl of Bedford and his associates had at such immense cost constructed were allowed to go to decay, and the drains were rapidly growing up. Francis, Earl of Bedford, the old, and Charles I., the new undertaker, were both dead. William, son to Francis, succeeded to his father's earldom, and, inheriting much of the spirit and enterprise of his father, applied with others of the adventurers in 1649, during the Commonwealth, to the Parliament sitting at Westminster. Parliament listened to their application, carefully examined all former proceedings, declared the decisions of the Huntingdon meeting null and void, and entrusted the works to the new Earl on the general plan of the "Lynn Law." This Act of 1649 was called the "Pretended Act," it not having been re-enacted on the restoration of Charles II. The new undertakers began in real earnest, and made good speed. The old works were repaired, and new ones constructed, and on the 25th of March, 1653, the Level, by a decree of Sewers made at Ely, was adjudged to be fully drained, and the Earl and his co-adventurers had the 95,000 acres of land awarded to them. The Great Level henceforward took the name of the "Bedford Level." In 1663, in the 15th of Charles II., a Bill was brought into Parliament, to make the adventurers a corporation, and during that session became law. This Act made the adventurers a corporation in perpetuity. The manner of their continuance is prescribed; their powers are declared; the whole 95,000 acres, their recompense for the work of draining, are made subject to taxes to be annually laid and raised for the support and maintenance of the works of the Level; the public meetings of the Corporation are fixed;

and the business of those meetings directed. From that time to within the last few years an Earl or Duke of Bedford has been the Governor of the Corporation. But on the occasion of the North Level, in which the Duke's property is situated, being legally separated from the Corporation, he withdrew, and was succeeded by the Earl of Hardwicke, the present Governor. From what has been already stated, it will be seen that the work of reclaiming this vast area of inundated land was no easy task; but one fraught with immense and ever-recurring difficulties, and required men of strong nerve and intrepid courage to undertake it. And it affords an apt illustration of the fact that subjects rather than sovereigns can most safely be entrusted with the prosecution of great national enterprises. The name of Russell is one ever to be honoured in the Fen country. To that family every fen-man is largely indebted. I cannot resist the conviction that the draining of the Bedford Level is the real starting-point, and that all subsequent and more perfect works of drainage owe their existence to the successful issue of that great adventure. The two maps I have introduced are copies from Dugdale, and show the state of the Level before and after its drainage by the adventurers. In the one, as you will see, the villages stand on high ground above the flood level, and are mostly surrounded with water, and constitute the Isles around Ely, from which circumstance that division of the county of Cambridge, called the Isle of Ely, very probably took its name. On these high grounds (and to this day the distinctive names of *high* and *fen* lands are retained) the sparse resident population doubtless produced corn and meat sufficient for their requirements, whilst on the flooded lands they had an inexhaustible supply of fish and wildfowl. And it seems fair to suppose they realized no small measure of enjoyment, dividing their time between work and sport, and making both contribute to their family necessities. On the other map you have a view of the Level after it was adjudged fully drained, with the works of Sir C. Vermuyden, which show the design of his scheme, and to which I must briefly call your attention. Sir Cornelius Vermuyden, although rejected by the country, as already stated, in consequence of being "an alien born," was employed by the adventurers, and the drainage of the Level was carried out according to his plans, and under his direction. He divided the Level into three parts. The first from Welland River to Morton's Leam, the second from Morton's Leam to Bedford River, and the third from Bedford River southwards. The first, containing about 40,000 acres, was called the North Level; the second, containing about 140,000 acres, was called the Middle Level; and the third, containing about 120,000 acres, was called the South Level. The leading features of his scheme were to convey the upland waters through the Level, by means of straightened and embanked rivers, to sea, and to prevent the tide entering and overflowing either of the levels. He effected these objects by turning the course of the Nene along Morton's Leam, between the North and the Middle Level, and the Ouse from Earith by a new cut called the "100 feet" or New Bedford River, on the confines of the South Level, and so obtaining direct outfalls to sea at Wisbech and Lynn, which tended greatly to improve those outfalls. Another feature in his scheme was to cut large new straight drains within each level, to convey the downfall to the rivers. Each level was defended by high barrier banks, and between the North and Middle Levels, and also between the Middle and South Levels, within these high strong banks, are washes, which, when the floods from the upland districts are greater than the rivers can carry away to sea, receive these surplus waters, proper provisions being made for their reception and evacuation. The second map shows this very clearly, and gives at once a distinct idea of the plan; and in comparing these straight embanked rivers, keeping out the upland waters from the Fens altogether, with those old natural streams which, crooked and devious, went winding through the whole Level, the waters overflowing them without let or hindrance, one sees at once the wisdom of this part of Vermuyden's scheme. For it must be remembered that the waters, whose passage to sea he thus provides for, are not the waters falling in the immediate neighbourhood, but what flow down the Ouse and the Nene from Buckinghamshire, Bedfordshire, Huntingdonshire, and Northamptonshire—the water-shed of whole counties. The two great defects in Vermuyden's scheme were (1st) his omission to provide for the improvement of the natural outfalls to sea at Lynn and Wisbech. He satisfied

himself with getting the water out of the Fens into the drains and rivers running through the Level; but gave no attention to their discharge therefrom; whereas his first great business should have been to have scoured for these drains and rivers the best outfall possible to sea, for, without that, all internal works, however good, must sooner or later fail. His second error consisted in not making the new drains and cuts of sufficient depth. He either did not understand or did not properly consider the nature of the soil he had to excavate. This soil was a deep moor-bed, which had been growing and accumulating for centuries, probably for ages, and for these drains to be permanently efficient, it required that this bed should be cut quite through to the natural soil on which it rested; but this he failed to do, and the consequence was the peat bottoms of these drains, covered with fen water, began, imperceptibly it might be, but surely, to rise upwards towards the surface of the water, seriously impairing their utility as drainage channels. And whilst this process was going on in the drainage channels, a process of a directly opposite character was going on in the drained lands around. Whilst the one was rising, the other was subsiding. These errors were sources of great trouble and loss to the adventurers. The completion of the adventurers' works and their effects upon the drainage of the Level led, after a while, to the consideration of still further works. Leading drains or rivers had been provided to convey the waters into the larger streams, and thence to sea; but as the drained land subsided, the question very naturally arose how the waters could be got from the fen drains into the adventurers' drains. When they ceased to flow naturally or by their own gravitation, it became necessary to provide some lifting power. The consequence was the division of the Level into districts, not on any uniform plan; but as certain owners in any locality deemed it expedient to improve the drainage of a certain specified area, they applied to Parliament for the necessary powers, which very commonly included embanking as well as draining, as both were essential. The first of these district Acts was obtained "for the better draining and preservation of Haddenham Level," which is within the South Level. This Act was passed in 1726, and was followed by a number of similar Acts. These districts were provided with drains, which all converged to certain points, and these mills, driven by wind-power, were erected for lifting, by means of scoop wheels, the waters from these drains into the adventurers' drains, to be conveyed by them to sea. Both the adventurers' and the free lands (as they were designated) were taxed to carry out and continue these operations. These wind engines during the present century have very generally given place to steam. A few remain as the relics of a former dispensation. Unfortunately, when the floods came, it so frequently happened that the wind refused to blow, and until Eolus could be aroused, these fen lands, instead of their embanked rivers, became reservoirs for the waters, and these floodings oftentimes resulted in heavy pecuniary losses. Steam-power, exchanging a certainty for an uncertainty, has contributed very largely to the improved drainage, and consequently to the increased fertility and value of fen lands. The advent of steam was the occasion of poetic inspiration. Hence a poor man writes as a motto for a steam-drainage engine:

"These Fens oftentimes have been by water drown'd—
Science a remedy in water found;
'The power of steam,' she said, 'shall be employed,
And the Destroyer by himself destroyed.'"

Vermuyden's omission to provide adequately for the improvement of the natural outfalls, as already referred to, became towards the end of the last century a subject of vast and serious moment. To deepen and improve the internal drains, and heighten the banks in the Middle and South Levels, as proposed, could be of little avail, so long as the outfall remained unaltered. Indeed, so bad had things become, that the Corporation were induced to consult Mr. John Golborne, an eminent engineer, who reported upon the state of the Level, and discouraged the execution of any other works until the outfall from St. Germain's to Lynn was improved. His report is melancholy and sad. He says, "Look which way you will, you see nothing but misery and desolation. Go but half-a-mile from Ely, and you come to a track of 16,000 acres given up and abandoned. There you see the ruins of windmills, the last efforts of an industrious people." This is in the South Level, and the Middle Level is no better. If you go to Ramsey," he

says, "you find more than 10,000 acres occupied by the waters, and see houses without inhabitants, and lands incapable of either pasturage or tillage. We passed two farm-houses, now deserted, where one of the occupiers got but two crops in nine years, and there were thousands of acres in other parts covered with fine crops of wheat, barley, and oats, that would be lost if there happened to fall twenty-four hours of heavy rain; wretched people whose all depends on the clemency of the season." Once more referring to the South Level, he says: "We saw the whole Level surcharged with water." And to the Middle Level, "Look which way you will along the Level and it is brim full." Golborne's Fen picture is not a very cheering one, but amid all the dark pencillings there is one little shading of light, one little sun-beam tinged with brightness stealing from behind the cloud, for he says "the roof of the evil lay in the outfall," and that if "a new channel is made for the Ouse from Eau Brink, and through the marshes to Lynn," cutting off a long circuitous bend, which so calamitously impeded the free flow of the waters from the discharge sluices of the two levels in their passage to sea, "the Level would again flourish and become fruitful land at a moderate expense." This Eau Brink Cut, so wisely recommended by Golborne, was made, but between twenty and thirty years elapsed between the passing of the first Eau Brink Act and the opening of the cut. But when it was opened in 1821 all the beneficial effects predicted by Golborne, Rennie, and other engineers, were fully realised. The low-water level of the Ouse, especially at its seaward end, was considerably lowered, and hence the discharge from the Fens was in like manner facilitated. A few feet additional fall to such low lying lands is of the utmost value. Between the passing of the first Eau Brink Act and the opening of the Eau Brink Cut, the Middle Level, anxious to improve its own internal works, obtained in 1810 an Act for that purpose, under which they expended some £80,000. But these improvements, added to the benefits resulting from the opening of the Eau Brink Cut, did not afford the country an efficient drainage. And I am not surprised at it; for when I stood the other day and looked at the two little openings from Well Creek into the Tongs' Drain, through which nearly the whole of the Middle Level waters had to pass, I felt amazed that the owners of Middle Level land could, even for a short time, have rested contented with such a miserable apology for drainage. In 1841 general discontent began to prevail, and schemes for improved drainage were projected, which resulted in the adoption of a plan submitted by Mr. Walker, which in 1844 received the sanction of Parliament. Mr. Walker avoided the error of Vermuyden, and gave his first consideration to the outfall. Previously to this time the waters, as just intimated, had been discharged by the Tongs' Drain into the Ouse. Mr. Walker decided to cut a new drain to a point nine miles nearer Lynn, just at the top of the Eau Brink Cut, thereby giving a greatly improved fall for the waters. Probably in times of pressure the difference would be as much as ten feet, or even more. Having secured this immensely improved outfall, Mr. Walker then sought to adapt the internal works to it, increasing the dimensions and depths of the drains accordingly, and where practicable giving a natural drainage, and where otherwise reducing the requirements for mill power to a minimum. The advantages resulting from Mr. Walker's scheme cannot well be over estimated. Formerly the waters were held up in shallow streams, between two high banks, which banks, in early Fen history, were sources of perpetual disquietude to Fenmen, as during every flood there were apprehensions of a breach, and these breaches were not infrequent. Since the Eau Brink Cut was opened these breaches have been less frequent, but where water is carried between banks several feet above the level of the surrounding lands there is always danger; besides danger there is leakage, and unless the banks have good puddle walls of clay in them, this is oftentimes a source of considerable difficulty and expense, and in addition to these evils there is the increased pumping power required. It is a self-evident fact that the higher the head of water against which you have to lift, the greater will be the lifting power required, and the less will be the discharge. Since Mr. Walker's plans were carried out these things have ceased to exist in the Middle Level; but half a million of money was expended in securing the advantages it enjoys. Since these works were erected the Two Miles Estuary Cut below Lynn has contributed to improve the outfall, by increasing

the depression at low water-mark in the Ouse at Lynn three to four feet, and at St. German's, where the Middle Level waters are discharged, two to three feet. But the increased scour of the Ouse is a source of danger as well as of drainage benefit. Already two sluices have succumbed, and twice has the country been excited and alarmed by reported failures of the Ouse banks; and did I possess the spirit of prophecy which some people seem to enjoy I should venture to predict that we have as yet not heard the last of these reports, but that sooner or later those banks will be occasions of disaster to the country. Since the failure of the Middle Level Outfall sluice in 1862 the country has been drained by syphons; this plan was suggested by Mr. Hawkslow, and has thus far been successful. There are sixteen of these syphons, each $3\frac{1}{2}$ feet in diameter, and about 150 feet in length, placed over the bank which was put across the main drain to stop the inflow of the tide after the sluice failed. There is every appliance which science can devise for keeping them in efficient working order. Probably in any new drainage schemes a sluice would be preferred to syphons, but the Middle Level has occasion to speak well of the syphons, and although their present number may possess less discharging power than their old sluice, and there may be some slight loss of fall, yet upon the whole they have worked satisfactorily, and have kept the Level well drained. The large sum of money expended by the Middle Level under its Act of 1844 on works properly belonging to the Bedford Level Corporation, and which it had failed to adapt to the requirements of the Level, occasioned dissatisfaction amongst the proprietors of the Middle Level lands, and led them to seek a separation from it, having their own works and share of funds placed exclusively under their own management. Parliament sanctioned this separation in 1862. The North Level as far back as 1753 had been practically and virtually separated from the Corporation, its share of the Corporation funds being secured to its own uses, but it was not legally and technically separated from it until 1858. The North Level took the lead in securing a good and efficient drainage. By making a new river eight or nine miles in length, and by cutting off a long bend by another straight cut of about the same length, they gained an additional outfall of some ten feet, which enabled them to do away with all pumping power, and for forty years they have now enjoyed a good natural drainage, their waters falling by their own gravitation to the sea. The South Level, having lost both the North and the Middle Levels, now enjoys the honour of being itself the Bedford Level Corporation. By an Act passed in 1827 some part of this level was benefited, but no great and comprehensive scheme for giving the whole Level a more perfect and efficient drainage has yet been submitted to Parliament. Considerable benefit has been necessarily derived from the Eau Brink and Estuary Cuts, but to reap the full advantage of these a new outfall much nearer to Lynn is required. The old outfall at Denver Sluice is still retained. This being some ten miles higher up the Ouse than the Middle Level point of discharge there is a consequent loss of fall of several feet; and this necessitates the keeping of the waters piled up in the rivers between high banks, the level of the water being some few feet above the level of the land, whereby they are exposed to all the evils incident to this primitive, but imperfect system of drainage, and to which I have already adverted. Last Whitsuntide the Bedford Level Corporation received a memorial from the Commissioners of the Haddenham Level Drainage, which stated that at their last half-yearly meeting "it was unanimously agreed to incur great and necessary expense in puddling the north bank of the old west river, as there are reasons to apprehend that in the event of a flush of water in the river the leakage through the banks would be greater than the memorialists engine could keep down. The memorialists are of opinion that the work is absolutely necessary for the preservation of their Level, though the bank is not within the limits of their jurisdiction." From what I have already stated respecting the draining of this "great Level" (and I have confined my observations mainly to this, and it sufficiently illustrates the drainage of all fen lands) the inference is easily deducible, that if fen lands are to be perfectly and successfully drained the true principle is first of all to secure the best possible outfall for the discharge of the waters, and then to construct the internal works of corresponding dimensions and depths, giving where practicable a natural drainage, and where not, reducing the pumping power

to a minimum; and sooner or later I conceive this will be the principle adopted by all the drainage levels in the kingdom. One important and somewhat startling fact in connection with the review of the drainage history of the great level during the last two or three centuries strikes one, and that is, that all the great works which have contributed to drain the land effectually, rescuing it from all risk of winter floods, and making it really valuable, have been made during the present century. At the beginning of the century the lands were little more than summer lands, and men were considered demented who ventured to sow a whole field with wheat. But now the Fens are the great corn-producing lands of the kingdom, and have been not inaptly termed "the granary of England." In 1774 the Fen Country had excited so much interest that Lord Orford and a party of friends resolved to take a cruise "in the narrow seas" in the Great Level, and accordingly had a fleet fitted out at Deptford and Ely, and in July commenced their twenty-one days' cruise. They passed through Denver Sluice into the Ouse, and thence through Sallers' Lode Sluice to Well Creek, and so through the Level. At Whittlesea Mere the great reservoir for fen waters, they amused themselves with fishing, and got up a regatta; they also received a visit while there from Lord Sandwich, the first Lord of the Admiralty, and some of his naval friends. In cruising down the rivers they took some very lordly liberties, which I fancy would be speedily avenged in these days. Where bridges were found to obstruct the passage of their ships they simply knocked them down, and passed on. They were not very complimentary to our Fen mothers; they say "many very old women in Upwell, Outwell, and March; the sex in general extremely ugly; the towns, population, crops of all kinds, plentiful." At Ramsey his Lordship says they found "the sex much handsomer . . . The girls had many of them guido faces, with fair hair, good shapes, with expression and life in their countenances." I don't learn that amongst those inhabitants whom they describe as having "disagreeable sallow complexions, broad flat noses, and wide mouths," were any "yellow-bellied" or "web-footed." Perhaps this reputed race had become extinct. Lord Orford's race-course and fishing-ground is now the home of flocks and herds, and teems with rich abundance. The eel, the perch, and the pike, have yielded to the bullock, the sheep, and the horse, and the lake-billow, which when tempest-tossed brought sickness to the cruisers, has given place to the golden wave of plenty. The Mere was drained under the Middle Level Act of 1844, and for all details and particulars relative to its subsequent cultivation I refer you to a very excellent paper on the subject, written by one of its chief proprietors, Mr. Wells, M.P. for Peterborough, and which appeared in a late number of the Royal Agricultural Society's Journal. The subsidence of Fen lands after they become drained is a subject deserving attention. The more we drain the lower our lands become, and we are beginning to inquire what is to be the end of all this. I am informed by Mr. Laurance, the agent to Mr. Wells, that when Whittlesea Mere was drained, to ascertain accurately what the subsidence was, a Doric column was placed in the ground, on which feet and inches were marked downward from the capitol, which was the original surface of the land. That surface is now seven feet below what it was when they began to drain the Mere eighteen years ago; and in the Middle Level on all our old drained lands we find the subsidence is still going on at the rate of an inch per year. We learn this from our drainage engines, which are continually requiring the centres of their water-wheels to be lowered, or the ladders to be lengthened, or they would soon lose their dip altogether. The increased facilities of discharge through the improved outfalls must continue to be felt until the peaty subsoil shall well nigh disappear. One of Lord Orford's companions on referring to their passage through Salter's Lode Sluice, tells us that the tide at that place rises five or six feet. On the 21st of February of the present year it rose to twenty-two feet three inches at 11.15 P.M. The effect upon drainage of this altered state of things, and consequently upon subsidence, must be obvious to every one. The Fen rivers and drains so useful and essential for the discharge of the flood waters of winter are scarcely less valuable for the supply of fresh water in the summer. It is not easy to overestimate the immense value of a good and liberal supply of fresh water for the whole Fen country during the dry summer months, and I need hardly say every effort is made to obtain this. The practice of irrigation

has not found much favour in the Fens, and it is questionable whether it would be of any great good where the waters possess so few fertilising elements. Irrigation appears to depend for its success very much upon the chemical properties contained in the waters. An analysis of the water will pretty correctly indicate what will be the effects of its overflow. Cultivation and drainage have gone on hand in hand, each successive improvement in the one leading to a corresponding improvement in the other. During the early drainage history most of the low-lying Fen lands were kept in grass, as they could not be profitably brought under cultivation in consequence of their liability to inundations during every recurring flood. Some farmers ventured to sow a few oats on the higher lands, but it was not until May was well in and the winter rainfalls had passed away to sea. By and by oats were grown more largely, and wheat was cultivated to some extent. Then came the system which prevailed very generally in the Fens for a good number of years, and which was to let the land keep in grass for two or three years, then pare and burn, and sow with coleseed to feed with sheep during the winter months, to be followed by oats, and then wheat; and again sown down with seeds, to remain two or three years—often three. This virgin soil, under such management, produced cole-seed of most extraordinary fattening qualities, and perhaps there has never been any natural food that would compare with it, or that would in so short a time produce so much weight of mutton. It was otherwise with the seeds, for after the first year they contained comparatively little nutritive properties, and their long continuance on the land made a fine refuge and breeding-ground for the wire-worms, to which the succeeding crops oftentimes bore indubitable testimony; and to this day they remain the greatest foe to successful cultivation the Fen-farmer has, and it is a very occasional year when his oat crop is not more or less ravaged by them. Probably the greatest improvement next to drainage, and consequent upon it, is the practice of claying fen lands. The value of clay, I believe, was first accidentally discovered by some of it which had been thrown from the ditches having been spread round the outsides of the field, and which produced most marvellous effects upon the growing corn crops. Our fathers were not slow to learn, and were very soon led to adopt a system of claying which still continues, some lands having been gone over three or four times. The plan is this: pits or trenches are made down the field, from $2\frac{1}{2}$ to 3 feet wide, and from 12 to 16 yards apart; two spits of clay are taken therefrom, and spread upon the intervening land, the peat or clunch subsoil being thrown to the bottom of the trench, and when all is finished, the pits are ploughed in, and the land being loose, and easily moved, is soon levelled again. The cost of claying is governed by the depth at which the clay is found from the surface of the land; but improved drainage occasioning a continual subsidence, as I have already observed, is bringing it within easy reach, and thousands of acres can now be done at a cost of 30s. per acre, and under; and no money expended upon a Fen farm yields so quick and so bountiful a return. The application of clay to these light soils not only gives solidity, but being possessed of considerable fertilising properties, greatly enriches them. Happily, the Fen lands very largely rest upon a clay bed; but the clay is not of a uniform quality. That which is blue, and of a soft buttery nature, contains the most lime, and is the best fertiliser. Some is silty, and some stony and hard, and these do little more than solidify. Perhaps the next great improvement consequent upon the drainage of Fen lands is their deep cultivation, to which reference has already been made. To talk of turning over a furrow slice 30 inches in thickness must sound to a clay-land farmer something like a piece of exaggerated nonsense; and may put his credulity to the test as surely as some of the wonderful statements he occasionally meets with now-a-days in agricultural newspapers; but you, sir, know it is no exaggeration. Deep cultivation on Fen land is generally accomplished by horse-power, as the great underground forest offers considerable obstacles to the application of steam. A pair of horses in a common plough go first, and take a furrow 4 or 5 inches thick, and are followed by a huge implement made expressly for the purpose, and which is pulled by six, eight, or ten horses, as the case and required depth may be. This plough buries the furrow turned over by the small plough, and brings the subsoil well on to the top, that its vegetable properties, by exposure to the atmosphere, may become speedily

decomposed, and made available as food for plants. One object in putting the top furrow down is to get it as far as possible beyond the reach of atmospheric influences, with the idea that under these circumstances the twitch or couch and weed roots will die and decay. It certainly is a very clever and ingenious way of cleaning land, if it can only be done; but my experience and observation lead me to the conclusion that it far oftener fails than succeeds. I think land should be quite clean ere it is deep ploughed. There can be no doubt but deep cultivation tends to preserve moisture in the soil in dry seasons, and to facilitate drainage in wet ones. It also unlocks those hidden treasures in which are so many elements of fertility, and consequently increases the producing-power of the land. Drainage, clay, and deep tillage, to which should be added superphosphate of lime and the water-drill, have completely metamorphosed the country, and altogether changed its modes of husbandry; and perhaps at the present day there is no country which is so utterly defiant of system. Every one sows what he thinks he will, and by proportionately liberal management labours under no apprehension that his soil will become exhausted; nor will it, if he treats it generously, and cultivates it wisely. Although there is no uniformity of system in the cultivation of fen lands, there is, however, a five-course shift which has found favour, and which prevails more largely than any other, and to which several farmers pretty strictly adhere. This is the order of it: Mangolds, kohlrabi, coleseed, or cabbages, which are gradually growing into favour; oats, wheat, seeds, wheat. The green crops and the oats are sown with artificial manure, the farmyard manure being reserved for the wheat crops. This rotation appears well suited to the Fens, and has been pursued with considerable success; but, as I have intimated, Fen farmers are impatient of the restraints of system, and break away from them to follow their own inclinations. A ride through the Fen country at the proper season will afford ample evidence of the truthfulness of this. In addition to the crops ordinarily found on a farm will be seen coleseed, turnip seed, linseed, mustard and cress growing as seed crops, and potatoes and carrots extensively cultivated for the London and other large markets. Turnips are not at all suited to fen soils. They grow of a woody fibrous quality, coarse, and long in the neck, and possessing scarcely any nutriment; they are, indeed, almost valueless as food for stock, and are consequently not cultivated. Kohlrabi and mangolds are much better; but these, like the hay, straw, and other products of Fen lands (coleseed excepted) are very deficient in fattening properties. I have already referred to the water-drill and superphosphate of lime, and their value in the successful cultivation of Fen lands. Our Fen soils appear to yield much larger supplies of ammonia than of phosphates, hence the free application of phosphatic manures is accompanied by much greater and more palpable results than is the case where ammoniacal manures are used. Probably there is no part of the kingdom where the application of phosphates to the soil has produced such startling results, and especially where they have been applied with the water-drill. The Fens have not been specially famed for the breeding of either cattle or sheep, but from very early times they have been noted for their good breed of cart-horses. The decreased acreage of grass seeds, consequent upon the increased acreage of corn and other crops, has largely tended to diminish the number of animals bred; but the show of cart colts, both as regards number and quality, on the 1st of July of every year at Thorney, is pretty good evidence that Fen farmers have not altogether lost their long-enjoyed and well-merited reputation. The Great Level generally, even now, under its more perfect drainage and improved cultivation, offers very few tempting residential inducements, and formerly, under other and more unfavourable circumstances, it repelled rather than invited residence. Hence it is no uncommon occurrence in many parts of the Fens to find both farmer and labourer residing in the town or village, rather than upon the farm. Another cause has largely contributed to this. Throughout the Fens there are a comparatively large number of small freeholders, and where these are found the farms generally are small, and a person's occupation is not uncommonly made up of three or four or more of these small holdings, which he finds can be more satisfactorily managed by residing in the town away from all, than by living upon any one of them. To an assembly of practical agriculturists I need scarcely say that these occupations are altogether bad; they

fearfully multiply the difficulties of management, and tend to increase the cost and diminish the profits of cultivation. These small ownerships, too, operate prejudicially to the labourer. Were the lauds, as in some other districts of the country we find them, chiefly in the hands of a few large proprietors, these might then be held responsible for the provision of proper and adequate cottage accommodation for the labourer; but as it is, such responsibility appears to rest on no one, and the poor man is driven to seek such a home as the village can offer, and instead of being on the farm ready for his work, has, morning and evening, to walk to and fro, thereby increasing his own toil, and with no corresponding gain, but an actual loss to his employer. This is an unmitigated evil; but where to find and how to apply the remedy is a problem difficult of solution; but time may eventually solve it, and it is earnestly to be hoped it will, for the cottage accommodation which these villages afford is painfully insufficient. Families are oftentimes crowded into miserable wretched hovels, totally unfit for human habitations, where, huddled together, regardless of age or sex, they grow up insensible to those moral instincts and refined susceptibilities to which modesty and virtue give birth, and lamentably exhibit that boldness and unblushing effrontery which are the natural outgrowths of sensuality and lust; and so long as their homes, if homes they can be called, remain unimproved, they must tend to foster every social evil, and continue hot-beds of immorality, bringing forth abundant fruit in the future, as they have done in the past, and to a great extent neutralising the efforts which religion and education so zealously put forth, and which are designed and calculated to improve the condition of the labouring-classes. Some fearful facts confirming the correctness of these statements might be adduced, but I forbear. Another feature peculiar to the cultivation of Fen lands is the large employment of children. Perhaps nowhere else do weeds grow so thickly and luxuriantly as in the Fens, and it is a constant labour to eradicate them; and to accomplish this, resort has been had to what are popularly known as agricultural gangs. Already the gang system has been reported upon by Government commissions, and has formed the subject of legislative enactment. Much that has been said has been more caricature than the representation of facts. The very worst cases have been hunted out, and when well-dressed and garished, have been presented as truthful pictures of the whole, and have elicited an amount of sympathy which might well have been reserved for more needy objects. That evils did exist, and required to be remedied, I readily admit. The licensing of gang-masters and the separation of the sexes are steps in the right direction; but I cannot resist the conviction that much of the immorality ascribed to the gang system, might, with far greater truthfulness, be attributed to the home influences I have just attempted to describe. Here lies the root of the evil, and here philanthropy and legislation should seek to apply the remedy. The sensational pictures of cruelty and slave-driving, and the like, might, with equal propriety, be presented as representations of the schoolmaster as of the gang-master. Whether children are receiving school or technical education, they alike require to be under control and management; and it would be as unwise to send them into the fields to labour, as it would be to send them to school to study, without the superintendence and direction of a master. The duty of the gang-master is simply to teach them how to do their work, and to see that they do it; and I presume the duty of the schoolmaster is very similar. This does not necessarily imply cruelty or immorality. Under right and judicious management, I conceive it is to the advantage of the children that they should be employed in suitable field-labour during the summer months. They are there learning that which will be a practical benefit to them in subsequent years; and the labour, whatever may be said to the contrary, is not excessive, and tends to promote, and not to impair, health and vigour of body; and the earnings of these young people form a most important item in the family income, and can ill be spared. After a good deal of reflection, I have arrived at the conclusion that children of a suitable age should be permitted to engage in field work, which is always plentiful during the summer months; and should be kept at school during the winter months, when their services are not required on the farm. Where farms are sufficiently large, I prefer a private gang. I have not employed the public gangs; but my plan has been to take my own labourers' children, with a few others occa-

sionally, and to place them under the supervision of the best man for the purpose I have in my employ, and I have reason to be well satisfied with this arrangement. One essential to successful farming is a good road. Hitherto the subject of good roads has received comparatively little attention in the Fens; Fen farmers are now awaking to their importance. In a recent Act of Parliament some powers were given and some provisions made for the gravelling and improving roads within the confines of the Middle Level, from which considerable good has resulted; and a more wide and comprehensive scheme has been projected and advocated by Mr. Wm. Marshall, of Ely, to whom be all praise for his able and untiring efforts. His scheme formed the subject of discussion some few months ago at the Cambridge Chamber of Agriculture, and will, I trust, ere long receive the practical attention of the Legislature. Bad roads add greatly to the cost of cultivation, and are a constant nuisance to all who have to use them. The value of Fen lands has increased or decreased, just as the drainage has been efficient or otherwise. In 1651 Lord Arundel, one of the Earl of Bedford's associates, in draining the Great Level, became so discouraged by the reverses and losses sustained by the adventurers that he sold his 5,900 acres for 3s. 9d. per acre, the same land now being worth probably from £30 to £50 per acre. Many farms in later times have been sold at very little over their present annual rentals, and some at even less. Through the kindness of Mr. Richards, of Wimbington, I am able to present the assessments to the poor rates of certain lands in the parish of Doddington, made at different periods, showing the influence which improved drainage has had upon the value of Fen lands:

	Acres.	Rateable Value.
1736	200	£40 0 0
1784	200	60 0 0
1822	200	100 0 0
1869	200	238 0 3
1784	60	15 0 0
1833	60	21 0 0
1869	60	68 1 4
1757	20	2 0 0
1784	20	5 0 0
1869	20	26 0 0

Mr. Richards has also placed another document in my hands, bearing date the 14th of May, 1626, and which refers to the payment of tithes by the inhabitants of March to the Rector of Doddington, and which I give *in extenso*:

MARCH, PART OF THE PARRISHE OF DODDINGTON, MAY 14, 1626.

A TREWE RECORD for the Payments of all Tythe by the Inhabitants of March to the Parson of Doddington, the Time when they are to be paid, and the custom how they are and have been paid of Ancient Time, and now agreed upon to be recorded by Samuel Wright, Doctor of Divinity and Parson of Doddington, and the Inhabitants of March part of the Parishioners of Doddington, as followeth:

Offerings with Garden Penny and Hearth Penny to be paid at Easter.—*IMPRIMIS*: Every Householder is to pay to the Parson of Doddington at Easter for his offerings *Twopence*, for his Wife *Twopence*, for every Child that he hath that doth take the Communion *One Penny*, for every servant *Twopence*, for his Garden in lewe of Hearbs *One Penny*, and for his Hearth in lewe of Firewood and Fireinge *One Penny*.

Tythe Eggs.—*ITEM*: Every one that keepeth Hens or Ducks is to paye upon Good Friday for every Henne or Ducke that then they have *Two Eggs*, and for every Cocke and Drake *Three Eggs*.

Tythe for Foals.—*ITEM*: Every man is to paye at Easter for every Foale he hath had foaled alive the year before *One Penny*.

Tythe for Cows and Calves payable at Easter.—*ITEM*: Every Parishioner not having a Tythe Calf then fallen, nor likely to have betwixt Easter and St. Mark's following, is to pay at Easter for the milk of every cowe that he hath milked the year past, and then is Owner of, *Three Halfpence*; and for every Calfe, not having a Tythe Calfe, that he hath had calved alive, *One Halfpenny*; and for every Heiforth that doth or hath given milk, *One Penny*; and every Heiforth's Calfe calved alive, *One Halfpenny*.

Tythe Milke to be paid at Whitsontide.—ITEM: Every man is to paye more in lewe of his Tythe Milke, the milke of all his Cows that doth give milke upon Whitsunday Morninge, the Parishioner causinge it to be milked, and brought to March Church Porch, where the Parson of Doddington or his assignees is to receive it.

Tythe Calves to be paid at Saint Marke.—ITEM: Every Parishioner is to paye upon St. Marke's Daye, in lewe of his Tythe Calfe, if he have Tenne, *Six Shillings Eightpence*, if he have under Tenne to Seaven to pay a Tythe Calfe, for the which the Parson is to abate of Six Shillings Eightpence for every Cowe and Calfe wanting of Tenne, *Twopence*, and for all above a Tythe to paye for every Cowe *Three Halfpenny*, and every Calfe a *Halfpenny*.

Tythe Lambe to be paid at May-daye.—ITEM: Every Man having Tenne Lambs fallen at May-daye and then livinge, shall for every Tenne Lambs he hath, paye a Tythe Lambe upon May-daye, and what he hath more than a Tythe, for every Lambe one *Halfpenny*, and if he hath but Seaven, he is to paye a Tythe Lambe, and the Parson is to pay him for every Lambe wanting of Ten One *Halfpenny*.

Tythe Wool and Tythe for Sheep bought or sold, to be paid at Shear-daye.—ITEM: Every Man keepinge Sheepe is to paye for all such Sheepe as he sheareth at Shear-daye, and was Owner of, or in his Possession at Candlemas before the full Tythe Wools in kinde, and for all such Sheepe that any Man doth buy after Candlemas, and soe to Shear-day, "for every Sheepe" One *Halfpenny*, and for every Sheepe by him sold, betwixt Candlemas and Shear-day, One *Halfpenny*, but for such Sheepe as shall be sold from Shear-day unto Candlemas no Tythe to be paid, because the Parson hath a full Tythe off all such Sheepe as any Man doth Buy before Candlemas and sheareth them.

Tythe Hay.—ITEM: Every man is to paye the Tythe Haye in kinde, by the Cocke, every Tenth Cocke or Tenth part when it is Cocked, and no Herbidge to be paid for Hedgronthe of after-grass, because the Owner doth now and make the Parson's Tithe as his own.

Tythe Fodder.—ITEM: Every man is to paye his Tythe Fodder by the Tenth Sheafe, puckled and shocked as his own, if a man puckle and shocke his own.

Tythe Hemp.—ITEM: Every Man is to paye Tythe Hemp in kinde, bound up in Sheafe as his own is bound, and not in Boulds, and no Hempseed to be paid, because every Man is to pull and make up the Parson's Tythe as he does his owne.

Tythe Corne.—ITEM: Every Man is to paye Tythe Corne shocked or bound up in Sheafe as he maketh up his own.

Tythe Freinte and Roots.—Every Man is to paye Tythe Freinte and Roots when he plucketh and inneth them, in kind.

Tythe Geese to be paid at Whitsontide.—ITEM: Every Man is to paye for every Tenne Younge Geese he hath at Whitsontide, a Tithe Goose at Whitsontide, and for all odd Geese above Tenne, not having Seavene, One *Halfpenny*, and if he have Seavene, he is to paye a Tythe, and the Parson is to allow him for every Goose wanting of Tenne, One *Halfpenny*.

Per me, SAMUELAM WRIGIIT, *Rectorem ibidem.*

PARRISHIONERS.

WILLIAM THOMPSON.	STEPHEN COWARD.
GABRIEL HUTCHINSON.	JOHN SHEPHEARD.
THOMAS SHEPHEARD & His	ROBERT AMBER.
Marke.	NATHANIEL BROWN.
JOHN NEALE, SEER.	JOHN COWARD.
RENOLD WALSHAM.	RICHARD ARMES, & His
JOHN CONNIE.	Marke.
JAMES SHEPHEARD.	JAMES COWARD.
JOHN NEALE, JUNR.	JOHN COWARD, SEER.
WILLIAM WALSHAM.	WILLIAM SHEPHEARD.
ROBERT CATTELL.	WILLIAM CONNET.
ROBERT CONNEY.	ROBERT HARDIE.
THOS. WALSHAM, Gent., &	THOMAS SHEPHEARD.
His Marke.	EDWARD CUNNEY.

The perusal of this curious and interesting document, associated with the recollection that, under the Commutation Act, the tithes of the Doddington Rectory were commuted at a very few pounds short of £10,000 per annum, furnishes still more conclusive evidence of the immensely altered value of Fen lands through drainage. These works of drainage have re-

quired men of indomitable will, unflinching courage, resolute determination, and unremitting perseverance to bring them to such a successful issue as we now find them. Kingsley, after a poetic and elaborate description of the Fens of other days, says, "Such was the Fen-land—hard, yet cheerful, rearing a race of hard and cheerful men; showing their power in old times in valiant fighting, and for many a century since in that valiant industry which has drained and embanked the land of the Girvii, till it has become a very 'garden of the Lord.' And the Scotsman who may look from the promontory of Peterborough, the 'golden borough' of old time, or from the Tower of Crowland, while Hereward and Torfrida sleep in the ruined nave beneath; or from the heights of that Isle of Ely, which was so long the 'Camp of Refuge' for English freedom—over the labyrinth of dykes and lodes, the squares of rich corn and verdure—will confess that the lowland as well as the highland can at times breed gallant men."

Mr. J. BROWNE (Elham, Wisbeach) said there could be no doubt that drainage of the fens was a most interesting subject to Fen men, whatever might be the case as regarded the majority of those assembled, and the anticipation of the chairman as to the manner in which it would be treated by Mr. Ruston had been fully realized. Although the Fen districts might not usually be inviting in their aspect, yet there were periods of the year when no class of English farmers could go though them without being thoroughly convinced of the great importance of the Fen district to the productions for the English agricultural market (Hear, hear). In some portions of the Fens you might see the sheep distributed about pretty nearly almost as thickly as they could walk. In the grass land districts, where some of the better kinds of grass prevailed, they would carry from ten to fifteen half-bred sheep per acre; while on passing from the grass land districts to the corn fields they would see almost every fourth piece of land in corn. These great results had been brought about in the manner which Mr. Ruston had so well described. It had always been a very difficult matter to drain Fen land, and he was very much struck with an observation in Mr. Ruston's paper to the effect that the thing began with opposition. The opposition had continued up to the present day. There had not been the slightest improvement ventured upon or suggested which had not aroused opposition (Hear, hear). Any application which was made to Parliament was sure to raise opposition, and the interference of a host of lawyers on one side or another for a time almost neutralised any efforts at improvement. He had hoped that they would have some representatives of the South Fens present on that occasion, because in his opinion the South Level was a century behind either the North Level or the Middle Level (laughter). He did not know whether or not there was a South Level farmer present, but if there were he trusted that he would rise up and defend himself (renewed laughter). He knew that such a person might tell them that he could drain his land at a cheaper rate and with as good results as they of the Middle or the North Level; but he fancied that a day would come when they would materially suffer for it; and he drained and cultivated his land under a fear of inundation. They could not boast very much on that point, even in the Middle Level; for although when that "heavy blow and great discouragement" came about eight years ago not a single acre of the Middle Level was inundated, they had to pay very dearly for what occurred. He thanked Mr. Ruston for his interesting paper, and he felt sure that many Fen men on reading it would be startled to find how much there was in the history of their district which they had known nothing about (Hear, hear).

Mr. W. C. LITTLE (Stag's Holt March) said he had expected to have a great treat in listening to Mr. Ruston's paper on the Fen country, and he had not been disappointed. It appeared to him that one subject which was mentioned was passed over rather lightly; he alluded to the subject of fresh water. They in the Fens had been in the habit of treating water as if it were always an enemy, a thing to be got rid of at any price, instead of treating it as a friend or a servant. They had sent it out to sea as fast as they could, and the consequence was that in a dry season like the present one they had suffered immensely. He knew something of the Bedford Level, and there were hundreds of acres which in his opinion would be much better employed as reservoirs for water than in growing corn. Another point which he should like to

notice was connected with the subject of local taxation. In speaking of the immense improvement which had taken place in the value of land in the Fens, Mr. Ruston had brought forward on instance of a farm formerly assessed to the poor-rate at £40, and now assessed at £238, that is to say, it had turned itself over six times through the application of capital. It had often been said that the increase in the value of land was occasioned by the increased population and other similar causes; but here at least was a case in which improvement was due mainly to the expenditure of capital, and that was an argument which he hoped would not be lost sight of by their friends who were contending for the relief of the land from some of the burdens of local taxation. Another fact of some importance was the great amount of law expenses which attended these improvements. The Middle Level had already spent £590,000, and there was a debt of £500,000 resting upon 120,000 acres. It would be interesting to inquire how much of that sum had been absorbed in parliamentary expenses. But the Middle Level expenditure did not include the whole expenditure for drainage in the district which was so designated; there were thirty or forty districts lying inside of it, and which required separate Acts of Parliament, and immense sums had to be expended before executing any work. Probably a hundred Acts of Parliament had been required on the old Bedford Level. He did not grudge lawyers and others their fair fees, but he must say that the cost of Acts of Parliament had formed a serious obstruction to improvement. He was aware that general land-drainage Acts had been passed to secure objects of that kind; but they were not based on sound principles, or they would be more generally adopted, and he knew one case in which serious difficulties had arisen from the defects of the general Act.

Mr. G. MARTIN (Hubert's Bridge, Boston), having risen in response to a call from the chair, said he was formerly a Cambridgeshire Fen man, but he had not resided there for 20 years, and the remarks of Mr. Ruston seemed to apply entirely to that district.

The CHAIRMAN: No.

Mr. G. MARTIN continued: He did not say a word about the Lincolnshire Fens.

The CHAIRMAN thought that Mr. Ruston's remarks embraced the whole country.

Mr. G. MARTIN said as he happened to be in another locality he was not in the position of those who were referred to by Mr. Ruston. In his district they were not so dissatisfied with the top soil as to bury it to the extent of 2 feet 6 inches. He should like to see the fen plough come into his district: whether it would answer as it did elsewhere he could not say. He lived on a strong fen, the subsoil being of extremely tenacious quality, and therefore Mr. Ruston's remarks on cultivation were scarcely applicable to his own case. He was not a black land farmer. He could not agree with Mr. Ruston that the breed of cart-horses had been kept up. If he went to Thorney fair he could not obtain such horses as he did formerly.

Mr. J. J. MECHE said he should not have said a word on this subject, but that it had an indirect bearing on another important question. Every man in England who was a bit of a florist if he had a garden-pot took care to have a hole in the bottom, well knowing that without that plants could not thrive; but with regard to drainage the same notion did not appear to prevail. He had felt exceedingly interested in Mr. Ruston's able and exhaustive paper, and as he listened to it he could not help feeling that the common-sense principle of the flower-pot involved in land drainage had had an immense start during the last few years. That brought him to another important question, the application of sewage to the soil—a question which like that of drainage seemed to be beset with difficulties. Probably ten millions of the people of this country resided in towns, and the manurial products of a man were more than equal to those of a sheep (Cries of "Question").

The CHAIRMAN intimated that in his opinion, although the paper opened up a broad question, Mr. Mechi was going beyond it in introducing the sewage of towns (Hear, hear).

Mr. MECHE wished to know if he were to understand that the feeling was that capital employed in conveying to Fen lands what they required to fertilize them would be wasted? At all events he thought he should be excused for alluding to that subject; and he hoped that the same intelligence which had been brought to bear on the cultivation of the Fen districts

would be applied to the fertilization of all the soils of England. The great outcry of the present day was that they did not produce enough. That was because they had not manure or drainage enough (Renewed cries of "Question"). He would not enter into that question at length, but he hoped that the intelligence of Englishmen of the present day would so facilitate the operations of agriculture that, while they had drainage to carry off surplus water, they would also have steam appliances to convey to the land by way of irrigation the valuable substances contained in the sewage of towns.

Mr. PELL, M.P., said he wished, as an owner in the South Level, before the discussion closed, to answer the challenge given to the South by a Middle Level man. He would observe that, although they might now be five hundred years behind the men of other districts, there was a time when they were five hundred years before them, the men of the Haddenham district having been the first to move in the right direction and apply steam power (Hear, hear). Perhaps their drainage was not quite so complete as that of the North and the Middle Level. But they had great natural advantages. They were beginning to think less of wheat, and were taking to the cultivation of fruit and other luxuries (laughter). As regarded the small occupiers between Ely and St. Ives, he must say that they were remarkable for their great industry, and for their intelligent application of capital to the cultivation of the soil. They carried on drainage works in a very superior manner, and he believed they were among the most cunning agriculturists on the face of the earth (laughter). That was a quality which extended over the whole district (Renewed laughter).

Mr. E. MAXSELL said he should like to hear from Mr. Ruston what was the cost of reclaiming land from the foreshore.

Mr. C. SEWELL READ, M.P., was quite sure they would all agree with him that they had had a most able and interesting paper. But he must observe that drainage in the Fen district did not always pay. They had in the county of Norfolk a considerable extent of Fen land, and some of it had been drained in the best and most efficient manner. Large and good steam-engines had been erected for the purpose of drainage, and yet—they might hardly believe this, but it was nevertheless a fact—the dykes were now dammed up, and engines were never used, except when there was a flood. He might be asked how that came to pass. When they cultivated this poor Fen, it became so light and frothy that it actually blew away. There was no clay at all until they perforated through from 17 to 20 feet of peat. The result was that all the money expended was wasted, and land which everyone thought was going to be a garden for arable, relapsed into a state in which it grew only a rough coarse grass. It might be interesting to some present to know that that curious erection the windmill, which was supposed to belong to a former generation, was in some cases, in his county, superseding steam. They had a large tract of land which all lay below high water mark; but it being all in grass, of an oozy nature, you could cut large drains in it without difficulty, and a windmill had sufficient power to keep them going. In his district they had had much more cause to complain of a lack of water than of a superabundance. He was particularly struck with the sensible remarks of Mr. Ruston, in reference to the gang system. The great cause of that evil was the lack of cottages; but on the other hand, some years ago, when landlords had built cottages in the Fens, they could not get anyone to live in them. Now, he believed, the Fens were as healthy as any other portion of England. There were some proprietors who had nobly done their duty, as regarded the erection of cottages, among whom the Duke of Bedford was remarkable in that respect.

Mr. NEILD (Lancashire) said: Having listened to the paper with the view of learning some practical lessons from it, he should have been glad to hear something more with regard to the application of clay to the soil. He had a few hundred acres of somewhat similar soil, on which he had been continually making experiments, and had been strongly urged to get clay; but as this would require carting a few miles, to what extent clay or marl could be applied in such a case seemed to him a very important problem. When he heard that it was done for 30s. per acre he was puzzled to understand how that result was arrived at. He had noticed in the case of the banks of a canal that puddling was essential. He had for 15 years farmed near a canal some land which, in the knowledge of persons now living, had sunk 7 feet at least, and he had had great trouble in consequence of the tendency

of the land to revert to its natural product of dry poor grass. In fact, if they took a spit 10 feet deep and put it on the surface, in a very short time it was covered over with vegetation (Hear).

The CHAIRMAN, in summing up, observed that Mr. Ruston had treated the subject in a manner which had left very little room for discussion. One very important question which had been raised that evening concerned not merely the Fen district, but the country at large; he meant the water supply (Hear, hear). It was not the Fen district only that had got rid of "the destroyer," as water had been termed, but he was sorry to say that on some of the heavy lands there was a great deficiency of water. If they went into a heavy or clay district in the winter months they would see an abundance of water rushing headlong into the brooks and rivers, but if they repeated their visit in June or July they would probably find a great scarcity of that indispensable article. That was a question, he repeated, which affected not only the Fen district but the whole country. Mr. Martin gave them a very favourable view of the Fen country when he told them that it would carry from 10 to 15 half-bred sheep per acre. He certainly rather envied that gentleman such grazing land as that (Hear, hear).

Mr. G. MARTIN: It was in the Cambridgeshire fen.

Mr. RUSTON, in replying, observed in reference to some of the remarks which had been made that it was impossible for

him to embrace everything in one paper, and that he had therefore applied his observations mainly to the Great Level which had created so much interest. The cost of reclaiming land from the fore-shore was not included in his subject. As regarded the bad Fen lands of Norfolk, mentioned by Mr. Read, it appeared to him that it would be well if some of them were used as reservoirs for water (laughter). Cultivation must be in a very bad state where windmills were used for the purpose which that gentleman mentioned. As respected what Mr. Neild said respecting clay, what he (Mr. Ruston) stated was that clay could be applied at a cost of 30s. an acre.

On the motion of Mr. Mechi, seconded by Mr. Little, a vote of thanks was given to Mr. Ruston for his paper; and on the motion of Mr. C. S. Read, M.P., thanks were also accorded to the Chairman.

FOREIGN CATTLE DISEASES.—At a meeting of the Committee of the Farmers' Club, on Monday, November 7th, Mr. James Howard, M.P., in the chair, it was resolved: That the thanks of this Committee be offered to the Right Hon. W. E. Forster for the energetic measures which have been recently taken by the Privy Council to prevent any importation of foreign cattle diseases. At the same time, the Committee begs to express a hope that separate markets for the sale and slaughter of all foreign stock will be enforced at the ports of landing throughout this kingdom.

THE CENTRAL CHAMBER OF AGRICULTURE.

A council meeting was held on November 8th, at the Salisbury Hotel. In the absence of Col. Tomline, M.P., president for the year, the Chair was taken by Sir Massey Lopes, M.P.

After some preliminary business had been despatched,

The CHAIRMAN presented the Report of the Local Taxation Committee, which was as follows:

The Local Taxation Committee, in presenting a report of their proceedings during the past month, have much pleasure in stating that they have been able to increase the number of their local agencies, but regret that many counties in England and Wales still remain unrepresented. Amongst others, the important counties of Lancashire, Northumberland, Oxford, Nottingham, Berkshire, Derbyshire, Dorsetshire, Kent, Shropshire, and Staffordshire, may be particularised. The Committee feel themselves entitled to congratulate the Central and Provincial Chambers of Agriculture, and all who take an interest in the efforts they are making to obtain a reform in the present system of levying local taxation, on the success that has attended the suggestion of the Chairman that the attention of magistrates assembled in quarter-sessions should be drawn to the very large and increasing charges of recent years upon the ratepayers for county-rate purposes, more particularly for police, prisons, lunatic-asylums, militia, &c., which your Committee contend are not for the benefit of any one particular class of the community, but for the general good, and ought therefore to be wholly defrayed, or much more largely supplemented from the national exchequer. The Committee are happy to say that this suggestion has been generally very favourably responded to, more particularly in the counties of Devon, Leicester, Somerset, Suffolk, Lincoln, Anglesea, Durham, Wilts, Derby, Radnor, Isle of Ely, Cambridge, Gloucester, Worcester, and Cornwall. A full and very interesting report of the proceedings of the magistrates in the Devon quarter sessions has been reprinted and very widely circulated. Copies of this report have been sent to every clerk of the peace in England and Wales, with a request that they would lay them before the chairman, the finance committee, and other magistrates in their respective counties. Copies of a memorial addressed by the East Suffolk Chamber of Agriculture, and signed by Mr. F. S. Corrance, M.P., to the justices of quarter sessions, assembled for the eastern division of the county of Suffolk, have also been sent to most of the clerks of the peace with a similar request. In one or two counties objections were at first raised with regard to the propriety of discussing this subject at quarter sessions, but, on the presentation of a memorial from the ratepayers, the difficulty was overcome. The committee call attention to this fact,

inasmuch as it shows the good effect of any expression of feeling on the part of the ratepayers on this vexed question. The committee cannot help feeling that if the magistrates of other counties assembled in quarter sessions would follow the example of those enumerated, and present petitions to the Legislature, a great step would be gained, and that such influential support must greatly tend to further the objects which your committee are striving for. Your committee are of opinion that a petition to the House of Commons would be preferable to memorialising any individual member of the Government, the counties of Devon and Salop having already adopted the latter course some few years ago without any good result, a petition to the Legislature being a more public expression of opinion as well as a more direct appeal to those who have the power of imposing and readjusting both local and imperial burdens. The vastly increasing burdens which will be thrown upon the ratepayers by the operation of the Elementary Education Act are demanding serious attention and augmenting the general dissatisfaction. Very cogent evidence as to the large sums which will soon be required for building purposes, &c., especially in the metropolis, will be found in the addresses of the candidates for the London School Board, and the consequent inadequacy of a 3d. rate to satisfy these requirements.

Some contributions were acknowledged.

Mr. NEILD moved that the Report be received and adopted. The motion was seconded by Mr. G. E. MUNTZ, and agreed to.

Mr. A. PELL, M.P., then moved: "That this Council recommends Provincial Chambers to memorialise their respective Courts of Quarter Sessions on the subject of the increased taxation arising from rates levied under the authority of those Courts." They were all aware how small was the power vested in the county magistrates with regard to the limitation of county expenses. Those magistrates assembled in Quarter Sessions were, however, the ruling authority to whom the ratepayers must in the first instance appeal; and if there were a general expression of dissatisfaction on the part of the ratepayers with regard to the incidence of the rates, the question would, no doubt, be discussed at the approaching Epiphany Sessions, and many petitions to Parliament be presented from counties which had not yet taken any part in the matter.

Capt. CRAIGIE, in seconding the resolution, said he was quite sure that the Chambers of Agriculture throughout the kingdom would cordially respond to the appeal thus made to them. In various quarters he had observed that the question of local taxation was assuming increased importance, and if

was now being discussed in many places where it had not engaged attention hitherto.

Mr. WHITTAKER thought the resolution before the meeting would tend to strengthen the hands of the magistrates in dealing with the question, by bringing out the fact that the present excessive expenditure was not occasioned by any imprudence or lavishness on their part. Over a large proportion of the expenditure the magistrates had, in fact, no control, and what they should do was to appeal to the Legislature to supplement the rates in other cases as was done in the case of prison expenses. He hoped the Local Taxation Committee would call the attention of the Chambers to the grievous want of funds for the agitation of that question. The circulation of printed matter throughout the kingdom was very expensive, and it was necessary that the local chambers should contribute liberally to enable the Committee to carry on their work with vigour. Further, it appeared to him to be the duty of the landed proprietors to protect their struggling tenantry, and not to stand in the back-ground on an occasion like that, thus leaving it to farmers to provide the requisite funds. He thought the large landowners should come forward, not with their five and ten pounds, but with their twenties and fifties, so that the public might be well instructed on the subject. When any portion of the manufacturing interest wanted to show that they had a grievance, they did not spare their money, and if agriculturists wished to succeed in the present case they must not spare it. In some counties the press had rendered great assistance, and he trusted that the powerful press of London would aid them in promoting so just and desirable an object. The Council did not speak merely for the landed interest; householders, the citizens of the metropolis, the manufacturers, and the small mechanics were all deeply interested in that question. Under the present system all rates were lumped together, and not one man in a dozen could tell how much the poor cost him, or how much he paid for the police, lunatics, or any other department of expense.

The resolution was put and carried, with the following rider, suggested by the Chairman: "That the secretary of the Central Chamber be instructed to write to secretaries of provincial Chambers in those counties where as yet no action has been taken by the magistrates in Quarter Sessions with reference to the county-rate expenditure, and urge upon the members of those Chambers the great importance of memorializing the magistrates to discuss this subject at the January Sessions, and present a petition to the House of Commons."

The next subject on the agenda was the new regulations of the fire insurance companies for the insurance of farming stock.

The Secretary read the following letters, which had been received from the Sun and the Phoenix Fire Offices:

"Sun Fire Office, Threadneedle-street,
London, E.C., Nov. 7, 1870.

"Sir,—I have to acknowledge the receipt of your letter of the 5th inst., containing an invitation to attend a Meeting of your Society to-morrow, at eleven o'clock, at the Salisbury-Hotel, Fleet-street. I am very desirous to meet your wishes in this respect; but owing to the shortness of the notice, I regret that it is impossible to make arrangements for a suitable representative of this Society to attend on this occasion.

"I am, sir, your obedient servant,
"S. J. FLETCHER, Secretary."

"Phoenix Fire Office, 19, Lombard-street,
London, Nov. 7, 1870.

"Sir,—I regret that I cannot accept your invitation to confer on the subject of the new conditions for farming-stock insurances. In the reports of other meetings of Agricultural Chambers, I have, however, found so much misapprehension on the point of *live* stock, that I enclose you one of our own circulars, in which it is distinctly stated that the proportionate condition does *not* apply to *live* stock if insured in a distinct amount, and not in one gross sum with the produce, and the same with respect to implements. With regard to root crops, not in buildings, these can be excluded from the insurance on produce, in which case, of course, they would not be taken into the calculation of proportionate value.

"I am, sir, your obedient servant,
"GEO. W. LOVELL, Secretary."

"Phoenix Fire Office, Lombard-street,
London, E.C., June, 1870.

"SPECIAL.—The result of Farming Stock Insurances has

been so unsatisfactory to the offices, that they have resolved to make it a condition henceforth, that premium shall be paid on a sum equal to at least three-fourths of the actual value of the agricultural produce at the time of a fire; and that if less than that proportion shall be found to have been insured, the office will then pay, not the whole of the loss, but only such a *proportion* of it as the sum insured bears to the actual value. Thus, if agricultural produce is insured for £500, and at the time of a fire is worth £1,000, the office will pay only half the loss sustained, or if it is worth £1,500, and the insurance only £500, then only a third of the loss will be payable, and so in proportion whenever the insurance is for less than three-fourths of the value. This will be the condition of all insurances effected on and after the 24th instant, and the policies will contain the following declaration: 'If the sum insured on agricultural produce, either separately or in one amount with other property, shall at the breaking out of a fire be less than three-fourths of the value of all the property insured in that amount, then this company shall be liable only for such a proportion of the loss sustained as the sum so insured shall bear to the total value of all the property to which such sum applies.' The same condition will be on all renewal receipts for Farming Stock Policies expiring at or after Michaelmas next. The agent will please to call the particular attention of his friends to this condition when granting or renewing Farming Stock Insurances. It will be seen, however, *that it does not apply to live stock, nor to implements, except when these are included in one sum with agricultural produce.*

"GEO. W. LOVELL, Secretary."

Mr. C. S. READ, M.P., said: I have been requested by the Business Committee, to move the following resolution: "That the 'Average Clause,' as insisted upon by the new regulations of the principal Fire Insurance Offices, is inapplicable to a property so variable in amount and in value as agricultural produce." I believe that I have been asked to move this in consequence of the Norfolk Chamber having been the first to stir in the matter. Let me say, in commencing, that I am fully aware that farming stock, as a rule, does not pay the insurance companies; and I think the companies are perfectly justified—justified in relation, both to their proprietors and to their other customers—in altering their rates and endeavouring to improve their system. But I contend that they should not, in order to cure one evil inflict upon us another (Hear, hear). No doubt the course they have adopted is the easiest one, and the one that will cost them and their agents least trouble; but I believe, that if they had had only one practical farmer upon their Committee they would never have insisted upon this average clause being applied to agricultural produce (Hear, hear). Probably you are nearly all aware that the principal insurance companies are associated in what they call tariffs but in what I shall call a trades union (Hear, hear). There was such a fierce, and I may say unscrupulous, competition among offices to secure business that they at last found it necessary to unite, and each of them appoint a member of a committee, and to that committee a great number of the business regulations of the leading insurance societies are delegated. To show you the way in which this committee acts, and how little power the directors have, I may mention that I am a director of a large insurance company, having a capital of £1,000,000 sterling, and that I actually knew nothing whatever of this new regulation until I received the notice about the renewal of the insurance of my own farming stock (laughter). I am supposed to be one of the persons who not only agreed to but proposed this new restriction and order. If I am rightly informed the committee met in the first week of June, and agreed to these new terms of insurance; and it was not until the middle of September that the principal offices thought fit to issue the notices to their agricultural insurers with regard to policies expiring on the 29th of September, while some offices have to this day not informed their customers of the changes which have taken place in their system. I am told that one great office, instead of giving formal notice to its customers, has simply put on the back of the receipt a clause, which is almost sure to have escaped attention when the document was placed on the file (Hear, hear). Now we say that this average clause is not applicable to farming stock. It is, I believe, applicable to any property that has a fixed value. In the case, for example, of a house, if you know its value now you probably know its value a year hence. But agricultural produce is subject to a great decrease,

In September it is at its highest, and in June it is probably at its lowest. But it is not a regular or gradual decrease. In a year like this, when we are particularly short of cash, as soon as we have got our ricks into our yards, we may soon begin to see what the steam engine can do to fill our pockets; so that three months after harvest, there would not be half, or at any rate a quarter, of the corn in stock (Hear, hear). Again, the yield has a great deal to do with the value of agricultural produce. In the light-lands of the county of Norfolk the average value of the corn crop this year may be set down at only £5 an acre; we hope that through the blessing of God it will next year be £10. The farmers and occupiers of the soil in the clay lands of the Fen district have grown this year five or six quarters of wheat per acre, and perhaps next year they will not grow four. Supposing wheat when at 40s. to jump up to 50s., see what a difference that must make in value. The great majority of the offices complain of the insufficiency of the sum insured for by farmers (Hear, hear). I believe this complaint to be in a great many instances well founded. The offices say that in consequence of farmers stacking their corn separately, and all over the farm, they have diminished the amount of their insurance. They put the case in this way. Supposing you have insured for £1,000, and by no possibility can have a fire that will consume more than £100, if you only insure for one-fourth of the value, your position is like that of a man who has 10 separate houses and only insures one of them. I admit that there is a great deal of truth in that statement of the matter; but I say that they have done worse; they have put all of us who stack in the fields, and who have comparatively little risk, under the same rates as a man who, for his own convenience or necessity, stacks the whole of his produce in the rickyard (Hear, hear). We of the light-land districts, who stack the whole of our crops in the fields, are certainly not exposed to as much risk from fire and candle as others, though a wayfarer's pipe may now and then cause destruction. There are, I believe, very few counties in England which pay a sufficient amount for the insurance of farming stock. The one that pays the most is the county of Norfolk. Why? Not because we are insurers to a larger extent than the farmers of other districts, but simply because we stack in the field and there is not as much risk of a destructive fire. I may observe that when I was one of the deputation who waited upon the Norwich Union Office, I put my finger on six counties and said, "I know very well that you lose a considerable sum of money by them." I was right: those six counties were the worst customers the office had. Any one who is at all acquainted with the general agricultural features of different counties, must know that the risks of agricultural produce are extremely variable. The Norwich Union Office insures, I believe, a larger amount of farming stock than any other office, the total being over £11,000,000. They did not think proper to withdraw the circular which they issued, but they have recently sent forth another which considerably modifies it, and they say to their agents, "We shall not insist upon your taking particular notice of the operation of the average clause in case of a fire unless you have special instructions from the directors. Every one who knows the Board of Directors of that Office, as I do and its excellent secretary, Sir Samuel Bignold, must be aware that they are just, honourable, and fair-dealing men; and this being the case, if a farmer has a fire when his crops are unexceptionally heavy or prices are very high, they will not take advantage of this position, while, on the other hand, if he systematically under-insures his crops, they will. But I say to them "You have no business to take a man who habitually under-insures his crops; and, if the agents did their duty, you would not have such persons." Have any of you seen the list of questions which those unfortunate agents have to answer? In the case of every policy there are fourteen or fifteen questions, and, as they are compound questions, I dare say that before the matter is finished they amount to more than thirty. The agents ask all sorts of reasonable and unreasonable questions (Hear, hear). They ask how many acres of arable land a man is cultivating. That, of course, is quite right, and any practical man would at once know, from the answer, whether or not the farmer had insured for a sufficient amount. But they go on to ask, "Are there any incendiary fires in the neighbourhood?" "Is the insurer popular with this labourers?" and all such complex questions as those. If you are to put agricultural

produce in all parts of the country at one risk, you might as well insure all sorts of buildings, whether they are of slate and brick, or of wood and thatch, at exactly the same rate; and you should also take the life of every man who happens to be 50 years of age, irrespective of his habits and his state of health (Hear, hear). I believe that the majority of the offices have insisted upon the produce being divided under three or four heads. I am told that the Sun Office insists on the average clause being applied to live as well as dead farming stock. I cannot say whether this be the case or not, but generally speaking, I may say, the office insists upon a division under three or four heads. To my mind that seems a certain benefit to the farmer provided they do not insist upon the average clause being applied to all the divisions, and I am informed that they do not wish it to be applied except to agricultural produce, which means, of course, the hay and corn crops. Of course they could not be so barefaced as to ask us to pay 5s. for our live stock and insist on the average clause being applied to that. Why, take the case of the very farm buildings where the stock are sometimes kept. They are insured at from 1s. 6d. to 3s. per cent., and yet they want us to pay 5s. for stock that never go near a building at all, and which in time of danger could generally walk out. Then, with regard to implements. They insure household furniture at 1s. 6d. per cent., and surely they cannot ask us to pay 5s. for our implements, many of which I am sorry to say never go into a shed at all (Hear, hear). Some of them are composed entirely of iron, and none of them, I suppose, can be subject to great risk from either water or removal. Some gentlemen say we should have policies half-yearly. Well, I believe that generally speaking offices will not assent to such an arrangement; but even if they would I should not like it (Hear, hear). It would be an immense bother (Hear, hear). I don't like even a yearly policy. Ever since I commenced business I have had but one policy, and I hope that will go on at the same rate. If the offices would be so good as to take the average price of every crop I should have no objection to the average clause, but at the same time I do say that it is utterly inapplicable to agricultural produce; and as they had raised their rates from 1s. 6d. per cent.—an amount of which, though I may not recollect it myself, I have heard my father speak—to 5s., so I contend that they had better raise their rates again, or apply some more practical, business-like system to agricultural produce than persist in what they had begun. There is not, I am sure, the least desire on the part of farmers to do anything to injure the offices (Hear, hear); but on the other hand, it ought not to be the wish of the offices permanently to injure the farmers (cheers).

Mr. HEWITT, in seconding the resolution, said he believed the chief cause of the recent movement of the offices was the want of a proper amount of insurance on the part of farmers. He knew several instances in which the value being £5,000 the owner did not insure for more than £500. He should have no objection to insure his own dead stock for three-fourths of the value, but he should decidedly object to insure his live stock for anything like that amount. The two cases were altogether different (Hear, hear). Mr. Read alluded to the Sun Office. He was insured there. When the circular was first issued he certainly thought that he was required to insure his live and dead stock for three-fourths of the value; but since then he had received a letter from the agent which altered the complexion of the matter. That letter contained the following: "If a farmer is insured on his dead stock, say for £1,500 and he has £2,000 worth on his farm at the time of a fire, he will be paid in full for any loss up to £1,500, but if he is only insured for £1,000 and has £2,000 stock, he will only be paid half his loss up to £1,000. The live stock is separate altogether, and is not made the subject of average at all. Thus, if a farmer has £2,000 live stock and is insured for only £500, he will be paid for the loss of all animals (not exceeding £40 each) up to £500." If that statement were correct—and he repeated that it was sent to him by an agent of the Sun Office—he thought he should not object very much to the new regulation.

Mr. READ: Might I ask whether the term "dead stock" includes implements?

Mr. HEWITT said he believed it did. The agents in the country seemed to know very little about such matters. When a fire occurred they were seldom able to value the injury done, and a superior class of persons had to be called in for the purpose of

valuation. It seemed to him very desirable that a better class of persons should be employed as agents. In his own county they consisted perhaps of lawyer's clerks, bank clerks, grocers, drapers, and stationers, who really knew nothing about what they were called upon to deal with.

Mr. G. MARTIN (Lincolnshire Chamber) said that on the 24th of October the Chamber which he represented passed a resolution to the effect that the new regulations of the fire insurance companies for the insurance of farming stock were in his opinion reasonable. Before the meeting was held he went to the office of a large insurance company to obtain information, and his feeling was quite changed before he left. He quite agreed with Mr. Read that there had been unfairness on the part of some of the offices; but there were always hardships in such cases. Insurance had certainly not been a paying business, and farmers could not expect to have it all their own way. As regarded the amount of insurance, he had himself put agricultural produce and dead stock at a fair sum, leaving the live stock at a mere nominal sum, and he believed that his insurance would not cost him more than it had done. The change might cause some trouble, but these were troublesome times (laughter).

Mr. NELL thought that where the insurance was in a jump sum it would not answer to have the average clause introduced, and farmers would find it to their interest to specify. A system of insurance which was applicable in one district might not be so in another. Some farmers had a large amount of valuable stock tied up day and night for five or six months in the year, and it would not do to ignore that state of things in the case of insurance. They had before them the fact that farming insurance did not pay. Did the fault rest with the offices or with the insurers? He ventured to say that farmers as a body did not insure for such an amount as they might reasonably be expected to do; and he believed that if they were to insure adequately on their implements and dead stock there need be scarcely any increase on the live stock.

Mr. WALFORD said that he was not officially connected with any insurance office, but he had paid great attention to the subject of insurance, both on the continent of Europe and America, and had found it surrounded with difficulties. He had conversed with the managers of different offices on the question under consideration, and he thought he knew something about the object which they had in view. He would give a short illustration of the working of the average clause. He would suppose the case of a farm the gross value of the produce of which after harvest was £4,000. The farmer, wishing to adapt his insurance to the average value of his produce during the year, might say "I will insure my crops for £2,000." That amount might be the full value in June; but what would be the case after harvest? His crops would then be worth £4,000, and if a fire occurred he might hitherto have received the whole £2,000. The offices thought that such a state of things required some modification, and said, "If you will insure for £3,000 on the £4,000 value we will then pay you the actual loss incurred." That was the way in which he understood the statement of the offices, and he thought he perceived in it a desire to deal fairly with agricultural insurers (Hear, hear). It had been too much the practice of many agriculturists to insure only for half, or even one-third of the value of crops which were distributed over the whole of a farm, while others paid on a much larger proportion. On the other hand, as Mr. Read remarked, it would be most unfair to require a farmer to insure for the whole of the crops existing at the end of harvest (Hear, hear). There should clearly be some equitable adjustment in such a case, and he (Mr. Walford) thought that three-fourths was not an unfair amount for either side. There was, indeed, another method in which that matter might be adjusted. The offices had tried for some time to get a basis which would be fair as between farmers and themselves, but they had never succeeded in doing so; and he thought that if a committee of practical men were to meet together to consider the matter they would soon arrive at some satisfactory conclusion. He believed that a proposition of that kind emanating from that Council would receive due attention from the associated farmers, and that they would be disposed to view with favourable eyes any suggestion of a practical character. As the matter stood it might certainly appear as if because a large number of farmers had not dealt fairly with them they have dealt an unfair blow at farmers generally (Hear, hear). He knew at least one company who he thought would be disposed to nominate local

directors in each agricultural district, and would be prepared to take insurances on their recommendation; and he believed that some arrangement of that kind would meet the case.

Mr. READ, in replying, said he believed that Mr. Martin, who lived in the land of Goshen, had this year grown a most extraordinary crop of corn. Hence he had been willing to insure for three-fourths of the crop; but he (Mr. Read) did not suppose he would be willing next year to pay that amount on a crop which might be only half as productive.

Mr. MARTIN observed that he should continue to pay it.

Mr. READ: Well, then, Mr. Martin was not quite as sharp as he had taken him to be (laughter). He was, in fact, a great deal too generous. What he (Mr. Read) maintained was, that every man should be insured according to his risk, and that persons which had hitherto insured for the proper amount, and had taken every precaution against heavy losses accruing to offices, should not now be classed with others of an indifferent character, and made to pay for their shortcomings (Hear, hear).

The CHAIRMAN said: A valuable suggestion had just been made by Mr. Walford, to the effect that a committee should be formed to meet the representatives of various offices. It was for the meeting to determine whether any action should be taken in that respect.

The resolution was then put and carried.

Captain CATLIN moved the next resolution, viz., "That the secretary be instructed to invite from other offices a declaration of their terms for the insurance of farming stock." He agreed with those who thought that the object of the offices was not clearly defined. He himself in effecting an insurance took great pains to induce the agent to fix a price per acre for arable land with which the office would be satisfied, but the only result was that the agent asked him to fix his own price. That he found very difficult, because the produce varied so much from year to year. In order to guard against anything that might invalidate his insurance, he wished to fix a price founded on an average of years. He was asked to estimate the value of the produce in his district. In 1868 the produce of 600 acres of arable land was worth upwards of £2,000 more than in the preceding year, and, on the whole, he found it impossible to put in an estimate which might not have made him liable to be called upon to pay more than was fair and reasonable. He asked the agent to tell him what was the highest price at which corn had been put down elsewhere. The reply was, that £12 per acre was the maximum price put upon wheat. He (Capt. Catlin) had fixed his at £14, and he asked the agent how, under such circumstances, he could be treated fairly. He inquired whether in case of fire the agent would estimate the damage upon the price at which the party insuring estimated the value of his crop, or whether he would call in some competent person, and be guided by him; and the agent replied that that was a question he could not answer.

Mr. TURNER, in seconding the resolution, said there were two or three courses open to farmers generally in reference to that question. The first was to ignore the offices altogether and not insure at all; the second was to establish an office on their own account; and the third—and this appeared to him the best—was if possible to meet the representatives of the offices and come to a settlement of the dispute with them. He concurred in what had been said as to the great difficulty of arriving at a solution for all districts upon one hard and fast line. Mr. Martin had alluded to agricultural produce to the almost total exclusion of live stock. He knew a case in which a farmer who had a fire in the month of February, when his produce was of but little value, was almost totally ruined, having lost in consequence the whole of his breeding ewes. He was at a sale in North Lincolnshire where 40 animals were sold for about £3,000, and with all deference to Mr. Read he must say that those animals seemed to him to have been well worth insuring. There would have been great difficulty in getting them out in case of fire. As regarded the third course suggested, namely, the formation of a committee to meet the managers of the insurance offices, he did not know whether that could be incorporated in the resolution.

The CHAIRMAN observed that a rider had just been handed in for that purpose, and would now be proposed.

Mr. VARDEN said there could be no doubt that the object of the societies was on the whole a reasonable and proper one; the only difficulty was how to carry it out in such a manner as to do justice to both parties. Mr. Read had spoken of those

who insured fairly and those who did not. The question seemed to him to be rather one of detail than of principle, and he would, therefore, propose the following as a rider to the resolution of Captain Catlin: "That a committee be appointed to confer with the representatives of the various offices, in order to arrive at some equitable basis for effecting such insurances."

Mr. BUDD, in seconding this rider, concurred in the opinion that considering the varying circumstances of the country it was impossible for any one rule to be applicable to the whole. He thought the only way in which a fair settlement could be arrived at, was by taking into account various local interests, and in his opinion that object would be best attained as suggested by Mr. Walford, by means of a local committee for each county.

Mr. MORRISON (West Riding) observed that if the offices did not meet agriculturists fairly it would still be open to them to form a mutual insurance fund, which would be advantageous and lucrative because the farmers would join to a man.

Sir G. JENKINSON, M.P., said it appeared to him that the insurance offices had pursued a very arbitrary and unfair course towards agriculturists in declaring that they would not renew their policies unless they insured on certain terms which were now laid down for the first time. His idea was that the offices were endeavouring to obtain from them some portion of the revenue which had been recently given up by the Government, and in his opinion if they wished to do that they should first have invited the representatives of agriculture to meet them. He knew the difficulty of establishing mutual offices; but greater difficulties had been met, and he had no doubt that if agriculturists determined to form a co-operative insurance office, all difficulties would be surmounted. At the same time he did not believe they would go into that line of business unless they were driven to it by the arbitrary conduct of insurances offices (Hear, hear), and he thought that as a body they would be ready to accept fair and reasonable conditions. He did not undertake to propose his resolution in any hostile spirit towards the offices, but simply with the view of giving the agricultural class an opportunity of looking after their own interests and obtaining fair terms. Insurance companies had no doubt suffered great losses, but that was partly owing to the careless way in which they appointed irresponsible agents in the country towns. If one went into a grocer's or draper's shop in a small village, almost the first thing one saw was a placard showing that the owner was the agent of an insurance office. These were not the kind of persons who were acquainted with agricultural business; they knew nothing about rotations of crops or the value of stock from time to time; and if the offices had appointed agents who were conversant with farming operations, many of the difficulties which had arisen would have been avoided.

Col. WILSON (Suffolk) believed it would not be so easy to appoint agents who were conversant with the details of farming operations as Sir George Jenkinson appeared to suppose. As regarded the hon. baronet's supposition that the object of the companies was to benefit by the remission of duty, he might observe that for very many years there had been no duty on farm insurances. It seemed to him that too much fuss had been made on that subject. Mr. Read admitted that farming insurances had not paid, and the first duty of the managers of the different offices was to take care to do no business that would not pay. It was the trying to force business and the entering on business of an unprofitable nature, which had brought some offices into such an unenviable position. As to the idea that a new society should be established for farmers, that might be a very good suggestion, but all he could say was that he should be very sorry to join it. He did not believe there was any variance of interests as between the offices and farmers—they were in the same boat, and he felt sure that if the offices had made a mistake they would be quite willing to rectify it.

Mr. PELL, M.P., said he had that morning called at one of the largest Offices in London, as regarded farming insurance, and having been invited to see the manager, he must say that so far as he could judge from what he heard there would be no indisposition on the part of that office to meet a committee emanating from that Chamber (Hear, hear). His own insurance was, he might remark, based on favourable terms, and although he had been fortunate enough never to have a fire, he should be quite willing to submit to some change. He

thought it should be suggested for the consideration of the insurance offices whether it would not be simpler to insure with reference to the number of acres in cropping down with reference to what there was in the rick-yard. There were many persons who could tell what was the average yield of a certain description of land and what amount of produce a man might be expected to bring to his rick-yard. It was pretty well known what number of acres a farmer devoted to corn crops, and if there were any material change in that respect a statement of the fact might be made essential to the validity of the insurance. He thought that through the adoption of some such principle as that they might come to fair and equitable terms with the insurance offices, although it might involve a higher rate of premium.

Mr. NELLID objected to the word "other" before "offices" in the resolution. In his opinion all offices ought to be included (Hear, hear).

Mr. G. E. MUNTZ also thought that the word "other" had a hostile appearance, and suggested the substitution of the word "all."

Mr. READ, M.P., would prefer the words "non-associated" offices, especially as they had the terms of the large offices.

Mr. WALFORD observed that nine out of ten of the offices were associated, but there were 8 or 10 respectable young offices which had been excluded from what was called the tariff, and who were disposed to do justice to farmers, thinking that they had not been fairly treated.

Mr. READ, M.P., recommended that the resolution and the proposed rider, should be dealt with as separate resolutions, and Mr. G. E. Muntz, and Mr. Varden, took the same view.

After some discussion this course was followed, and in accordance with Mr. Read's proposal, the resolution of Capt. Catlin was agreed to with the substitution of "non-associated" for "other" before the word "offices."

On the motion of Mr. PELL, M.P., the following resolution was adopted, in place of that submitted by Mr. Varden, the latter gentleman having seconded it: "That a committee be appointed to confer with the various insurance offices as to the most equitable mode of insuring farming stock and produce, and that the committee report to this Council the result of their proceedings."

On the motion of Mr. READ, M.P., the following gentlemen were appointed to form the Committee: Col. Tomline, M.P. (Suffolk); Mr. Pell, M.P. (Leicestershire); Capt. Catlin (Cambridgeshire); Mr. Jabez Turner (Northamptonshire); Mr. G. E. Muntz (Warwickshire); Mr. Morrison (Yorkshire); Mr. C. S. Read, M.P. (Norfolk); Mr. Varden (Worcestershire); Mr. Walford, and the Secretary, *ex officio*.

The CHAIRMAN said that the next question fixed for consideration was, "What further regulations for the home and foreign cattle trade are required in the interest of producers and consumers?"

Mr. T. DUCKHAM moved the following resolution: "That the thanks of this Council are due to the Right Hon. W. E. Forster, M.P., for the prompt manner in which the powers of the Contagious Diseases (Animals) Act were put in force upon the outbreak of cattle-plague on the Continent; but that the interests of both producers and consumers demand that regulations for water-side slaughter should be permanently extended to all imported fat animals, with quarantine for store stock." With regard to the latter part of the resolution, he observed that there had been great laxity hitherto in carrying out the objects of the Act, and that it was absolutely necessary that farmers should be better protected.

Mr. G. MARTIN (of the Lincolnshire Chamber), who seconded the resolution, read the following paragraph, which had appeared in the *Times* about ten days ago: "Trade of the Port of Grimsby.—Thirteen large steamers have been running weekly to and fro to the ports of Hamburg, Dieppe, Rotterdam, and others to Antwerp, to Riga, and Cronstadt, and the Black Sea. There has been a large passenger traffic carried on, through from the Continent, *en route via* Grimsby and Liverpool, to New York. The importation of sheep and pigs, calves and beasts, from Hamburg has largely increased during the past year, and notwithstanding the orders issued by the Privy Council for their slaughter at the landing-place they are sent, the steamship 'Grimsby' bringing in on Friday 31 sheep and 60 cattle." Mr. Martin stated that the Lincolnshire Chamber had at once instituted an inquiry as to how far a dangerous importation was being carried on at Grimsby, in

contravention of the orders of the Privy Council. The secretary of the Central Chamber here read a communication which he had just received from Mr. S. Upton, the secretary of the Lincolnshire Chamber, as follows:—

“Lincolnshire Chamber of Agriculture,
“St. Benedict-square, Lincoln, Nov. 7, 1870.

“Dear Sir,—I send you on the third and fourth pages copies of letters received from the town clerk and superintendent of police at Grimsby. The paragraph brought under the notice of our Chamber has been misunderstood, but it appears to me that the removal of pigs (as coming over in the same vessel as cattle) into the county alive must be attended with considerable danger. Your note dated the 4th did not reach me until this morning. The envelope bears the Long Sutton and Wisbeach post-marks of the 5th, and Lincoln of the 7th.—Yours truly,

“S. UPTON, Secretary.”

[COPY.]

“Great Grimsby, Nov. 3, 1870.

“Dear Sir,—The Mayor has desired me to reply to your note of the 29th ult., containing paragraph from the *Times* newspaper. We have a large slaughter-house on the dock works, and all cattle from suspected countries are slaughtered there, and the skins disinfected. I think you have misunderstood the paragraph. It means that the trade has not decreased in Grimsby notwithstanding that all cattle are slaughtered on their arrival from foreign parts. Our inspector is very strict, and so are the customs authorities at this port.—Yours truly,

“W. GRANGE, Town Clerk.”

“S. Upton, Esq.”

[COPY.]

“Lincolnshire Constabulary, Nov. 3, 1870,
“Grimsby Station.

“Mr. Superintendent Martyn,

“Sir,—In answer to yours, respecting the importation of foreign cattle into Grimsby, I beg to state that the regulations in force at the docks are, that all cattle coming from foreign countries are slaughtered at the slaughter-house provided on the docks, none being allowed to be taken from the docks alive. The hides are branded and disinfected by the inspector, Mr. Wentworth, V.S. The same regulations apply to sheep, but pigs can be taken away alive, and a great many are sent to Manchester, Sheffield, &c. I cannot hear of any cattle or sheep leaving the docks alive during the last fortnight.—I am, sir, your most obedient servant,

“A. RICHDALE, Supt.”

Mr. GENGE ANDREWS, in supporting it, suggested the insertion of the word “effective” instead of “the present” before “regulations.” It was absurd to have a restriction in London and not make it equally applicable to all other ports. They all knew that cattle-plague was as readily conveyed by an individual who had come in contact with cattle affected as by the cattle themselves, and unless the regulations were made thoroughly effective they would still be subject to the evil. He would therefore propose to add to the resolution: “And that the regulations should be applied with the least possible delay at every port at which foreign animals are admitted.”

Mr. MUNTZ deprecated the addition as needless if the word “effective” were adopted.

The resolution was ultimately adopted with the alteration and addition suggested by Mr. Genge Andrews.

Mr. BENNETT moved the following: “This Council expresses a hope that her Majesty’s Government will not hesitate to adhere to and support the provisions of the Contagious Diseases (Animals) Act, with reference to the establishment of a permanent Metropolitan Foreign Cattle Market, and trusts that when such market has been opened the present restriction against the removal of cattle from the metropolitan area will be rescinded.”

Mr. DICKSON, in seconding the resolution, dwelt on the disadvantages to which farmers residing north of London are exposed by having their finest animals excluded from such places as Brighton, Hastings, Maidstone, and Canterbury.

Mr. READ, M.P., remarked that the Norfolk graziers complained not merely of their exclusion from southern markets, but also of the enormous charges made by railway companies for the conveyance of dead meat; and, in his opinion, the Chamber should express its opinion on that subject.

The resolution having been adopted,

Mr. T. WILLSON moved the following: “This Council would direct special attention to the exorbitant charges of the railway companies for the conveyance of dead meat, and trusts

that by a reasonable revision of their tariff they will facilitate the supply of meat to populous districts.” That was, he observed, a question which concerned consumers as well as producers, and the inhabitants of Yorkshire, Lancashire, and other large consuming districts, had great cause to complain. For the conveyance of dead meat from Leicester to London the London and North-Western and the Midland Companies charged four times as much as they charged for carrying live meat, although the risk was less.

Mr. READ, M.P., in seconding the resolution, said he thought that all who took an interest in the welfare of large towns must desire to see a large development of the dead meat trade. It was impossible to understand the varying rates charged by the railway companies. From Liverpool to London—a distance of 214 miles—the charge made for conveying dead meat was 2s. 6d. per cwt., while from Grantham—a distance of only 111 miles—the charge was exactly the same. Again, from Berwick to London, the distance being 337 miles, the charge was 3s. per cwt.; while from Sleaford, only 115 miles, it was 2s. 10d. He really thought that railway companies required to be associated in the same way as fire insurance offices—he meant, of course, not for the purpose of charging more, but if possible charging less and equalising their rates (Hear, hear). Everybody knew that there was a greater amount of risk and trouble in conveying dead meat than live animals, especially as the railway companies invariably delivered the dead meat in the metropolitan market; whereas live animals, generally speaking, delivered themselves. He felt quite sure there would be a much larger development of the dead-meat trade if railway companies were more reasonable in their charges (Hear, hear). One of the increasing tendencies of the present day was the sending of large quantities of dead meat to the great towns.

A MEMBER observed that for eight months of the year Aberdeenshire sent about 2,000 carcasses a-week to London, and only about 500 live animals. The former were delivered at 3s. 3d. per cwt.; while the charge for live animals was only 25s. per head. Thus, assuming the average weight to be 7 cwt., the charges for live and dead meat were about the same, the difference being rather in favour of live meat. Several carcasses might be placed in the space occupied by one live animal.

The CHAIRMAN remarked that some one else ought, perhaps, to have been placed in the chair before that resolution was submitted, as he himself happened to be a railway trector (laughter). He concurred, however, in its purport.

The resolution was then adopted.

The following resolution was afterwards proposed by Mr. T. Duckham, and seconded by Mr. Hewitt: “That, owing to the lax manner in which the Contagious Diseases Act is being carried out, great losses are accruing to the stock-owners of various parts of the kingdom; and that, therefore, the local authorities should be urged rigidly to enforce its provisions.”

After a short discussion, in which the resolution was objected to as needlessly implying a censure upon the authorities, and, also, because the meeting had become very thin, the resolution was withdrawn.

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

THE CENTRAL AND THE LOCAL CHAMBERS OF AGRICULTURE.

At a meeting of the Shropshire Chamber of Agriculture on the same evening, Mr. Bowen Jones, vice-president, in the chair, the subjoined recommendations were unanimously agreed to: “That this committee, while fully recognizing the deserts of the Central Chamber, and admitting its part action to have entitled it to the support of agriculturists, considers that its organization lacks the amount of representative force that should belong to the central exponent of agricultural views, and without at the present time being prepared to recommend an entirely representative association to act as the mouthpiece of chambers, is of opinion that the Council of the Central Chamber of Agriculture in London should be appointed at an annual meeting, including deputed representatives from provincial chambers, and should consist of a limited number of members appointed from its own body, together with one representative from each of the affiliated chambers, with the addition of other deputies appointed on the basis of numerical

representation and an equivalent payment. That in order to carry out this view each chamber and association shall elect one permanent representative for the ensuing year for such purpose." "That in order to increase greater unanimity of action, and to diffuse information more widely, the various local chambers should without fail distribute all reports of discussions and other matter obtained through their organization to each of the provincial chambers established as well as to the Central Chamber." "That the Central Chamber should publish its reports in pamphlet form, so as to be added to annual reports of local chambers, and that all Parliamentary bills should be forwarded without being sent for, a charge being previously agreed upon."

The following letter has also been addressed to the secretary of the Central Chamber of Agriculture:

SIR,—Again the Central Chamber has met on the subject of "Securing greater unanimity of action between the Central and provincial chambers," and again it has adjourned the question. Your remarks implying that such postponement was a consequence caused by the absence of delegated members are not clear, as certainly those chambers that had sent resolutions on the subject were present by their resolutions. The subject is a delicate one, as although some chambers may deem an association of chambers indispensable, yet they cannot feel at liberty to urge the Central to dissolve and allow its position to be taken up by an association of chambers. The grounds on which the North of England Chamber founded their resolutions were fully stated in their discussion; you were the judge of whether your readers cared to know them, and they did not appear in your columns. The cost of attending at the Central meeting, to repeat them, would have been at least £4, and this would have been to again incur at the two adjournments that have taken place, and at every future adjournment. Nothing could more fully illustrate the necessity of an associated chamber which would not call a meeting on a subject until ready to discuss it, and then at one and the same time dispose of it. The present anomalous position of the Central Chamber may be no barrier to its independent acts; but some who do not know its exact position may be misled by supposing it to represent the opinions of the provincial chambers. Many of its most prominent acts have been totally at variance with the resolutions of the North of England Chamber. I may instance the deputation to the First Lord of the Treasury, and the suggestion of an "income-tax rate" for poor-rate purposes, instead of the present basis of "the ability of a parish," the delegation of a portion of its duties to a Local Taxation Committee, which committee sets up its independence, collecting separate funds, issuing pamphlets, and further diverging from chamber action by a letter to the courts of quarter sessions, and which act assumes either that the members of sessions are not members of chambers of agriculture, or that the question of local rates is fitter matter for a court of sessions than a chamber of agriculture. The ratepayers cannot be benefited by any mediators intervening between them and Parliament save their duly constituted representatives, and all the machinery necessary is the united action of the ratepayers themselves. The principal objects for which chambers were formed were to discuss and set forth by resolutions the present faulty manner in which local rates were assessed, and how they might and ought to be adjusted. An association of chambers is necessary on some questions to reconcile and combine the various resolutions of the provincial chambers in one general resolution, in order that the approach to Parliament be in a united and common-weal form. The present members of the Central Chamber may or may not be willing to alter its constitution so as to become an associated chamber. The question has been fairly and courteously put to them, and their reply is looked forward to with much interest.

Yours, &c.,

THOMAS LAWSON.

Loughurst Grange, Morpeth.

At a general meeting of the County of Devon Central Chamber of Agriculture, the president (Mr. C. J. Wade) said the most important business for discussion was, the want of combination existing between the local Chambers and the central Chamber in London. He did not think the questions discussed and the importance of the local resolutions passed at their meetings were fairly met, and taken sufficient notice of by the Central Chamber, he thought they were somewhat shut out in the cold; indeed, he himself had not

met with the courtesy he expected when presenting himself to offer opinion on the working of the local Chambers, and he wished the gentlemen now present would seriously entertain the question, and, by the aid of a resolution or some other method, endeavour to effect a most cordial operation between the parent institution and the branches. There were points of local discussion, such as police rates, turnpike tolls, and other matters which they were called upon to solve, which received no characteristic response, when those questions were sent up for discussion at the Central Board. He spoke of the necessity of having un-tolled roads for the transmission of forces and war material, and thought it should be provided either by contribution or otherwise, out of the national funds; he had some communication with the Secretary on these subjects, and he thought the Central Chamber should be in more direct connection with the local chambers.

Mr. STOOKE said there were 55 local chambers, and there was no unanimity of action, for it required a guinea a-year to be constituted a member of the Central Chamber, and even then his opinion was crippled in discussion. He thought the chamber should be a representative one, as yet only five or one-tenth had followed in the same opinion, and he deemed it necessary the local chamber should be one and all unanimous on this question.

Mr. CREED proposed the following resolution, which was seconded by Mr. Stooke, "That in the opinion of this chamber every local chamber should have power to send delegates to the central chamber meetings, and that they should have same position as those who are members of the central chamber in discussion and voting, both in the general meeting and also in council."

The SECRETARY called attention to the resignation of Mr. Wade, as president, circumstances calling him away.

HUNGERFORD CHAMBER OF AGRICULTURE.—

The fears entertained by some persons that the above association would soon cease to exist, are now entirely dissipated, the meeting held at the Bear Hotel on Wednesday evening being one of the most successful remembered in connection with the Club. The attendance proved larger than it has been on several occasions lately, while the able paper read was followed by a discussion of an animated and interesting character. The subject was Steam Cultivation, introduced in a very practical manner by Mr. Cottrell, steam plough proprietor, of Charnham-street, Hungerford, whose paper was listened to with much interest. Mr. T. Chandler congratulated the members upon the character of the present meeting, which gave hopes that the Chamber had been thoroughly resuscitated.—*Reading Mercury.*

DOUBLE-FURROW PLOUGH v. SINGLE-FURROW

PLOUGH.—A match took place at Tarporley, between a double-furrow plough, manufactured by Corbett of Shrewsbury, and a single-furrow plough, by Mr. Shean of Eddisbury, for £5 a-side. The two-furrow, according to agreement, was to plough more than double the quantity of land to the single-furrow plough, and this was done easily. When the ground was measured, it was shown that the two-furrow had ploughed 2a. 0r. 19p., and had 104 furrows to every 83 feet; while the single-furrow had done 1a. 1r. 17p., but only had 92 furrows to every 83 feet. The dynamometer was put to the two-furrow plough, and registered to be only 5c. 22lbs. in draught. The decision was, of course, in favour of the double-furrow plough

THE DOUBLE-FURROW PLOUGH TRIALS AT

ALFORD.—These trials took place on Friday, Nov. 12. Amongst the entries were—Ransome, Ipswich; Howard, Bedford; Ball, Rothwell; Cooke, Lincoln; and one of Fowler's Pirie Ploughs. The land, which was very heavy, was in a terribly sticky and wet state, owing to the heavy rains and the frost of the previous night. At the conclusion of the trials the first prize of £10 for the best general purpose double-furrow plough, due regard being had to lightness of draught, ease, and economy of management, strength and simplicity of construction, was awarded to Messrs. Ransome, and the second prize of £5 to Messrs. Howard. The judges were—Major Grantham, Spilsby; Mr. Helmsley, Nottingham; and Mr. James Martin, of Wainfleet. As at the Peterborough trials, the services of Mr. C. E. Amos, C.E., were engaged to carry out the dynamometrical tests,

THE DISEASES OF STOCK.

The following Circular has been issued :

Privy Council Office (Veterinary Department),
Princes-street, Westminster, S.W.,

November, 1870.

SIR,—I have the honour to enclose a copy of the Form of Return for *Foot-and-mouth disease* referred to in the Order of Council of 8th November, 1870, and am directed by the Lords of the Council to inform you that they anticipate that, under the new arrangements, the amount of expense hitherto incurred by the Local Authorities in furnishing the information required by their Lordships will be considerably reduced.

I am also directed to call the attention of your Local Authority to the circumstance that Cattle Plague or Rinderpest, the disease from which this country suffered so much in 1865-6, now prevails more or less extensively in France and North and South Germany.

Their Lordships have taken measures to guard against its introduction by imported animals; but as it is possible that the disease might be brought in by human beings, or by any means capable of transporting very minute particles of the contagious matter, it is especially necessary, at the present moment, that the Inspectors of the Local Authorities should be on the alert.

The detection of this disease requires special professional knowledge, and as it appears that some of the Local Authorities have appointed the Local Police and other non-professional persons as Inspectors under the Contagious Diseases (Animals) Act, 1869, the Lords of the Council trust that such Inspectors will not, in any district, be left without professional assistance, but that the Local Authorities will authorize them, in any case, where there is a doubt as to the nature of a disease, forthwith to call in a professional Inspector.

Their Lordships feel that they cannot too strongly impress upon the Local Authorities the urgent necessity for the most careful attention to the above-mentioned point, and they trust that, in consequence of the decrease in the duties of the professional Inspectors with regard to the Returns relating to Foot-and-mouth disease, they will be instructed to give increased attention to the other contagious and infectious diseases of animals, and more especially to those diseases which have any resemblance to Cattle Plague, or concerning the nature of which there appears to be any doubt.

I have the honour to be, Sir,

Your obedient servant,

ALEXANDER WILLIAMS,
Secretary.

THE NEW FOREST.—A Parliamentary notice has been issued by the Hon. J. K. Howard, Commissioner of Wood, Forest, and Land Revenues. It announces that application will be made to Parliament in the Session of 1871 for an Act having for its object—first the repeal or amending of certain Acts relating in whole or in part to the New Forest; second, the abolishing forestal offices in or over the same forest, and making compensation to the holders of such offices; the division of the forest, or some part or parts thereof, into parishes or ecclesiastical districts, the alteration of the boundaries of existing parishes and ecclesiastical districts, and the making of allotment for churches, schools, or other purposes; the ascertainment of the value of the rights of her Majesty in the forest or some parts thereof, and of certain rights of commoners; the making of allotments of part or parts of the forest, or of other compensation in satisfaction of such rights; certain alterations of rights of way; the confirmation and carrying out of the register of decision or award of the commissioners appointed to inquire into the rights of common in the New Forest under certain Acts which are named; the authorising of the application to the purposes of the Act of the balance of purchase money received by the Crown from the Southampton and Dorchester Railway Company for land taken by them in the Forest; the authorising the commission or commissions to be appointed under the Act to sell part or parts of the forest, and to apply the purchase-money to the purposes of the Act; third, the disafforestation of the forest in some part

or parts thereof; fourth, the appointment of a Commission or Commissions for effecting all or some of these contemplated objects, with all necessary powers; and fifth, the variation or extinguishment of all rights, powers, and privileges which would interfere with any of its objects, with power to confer others in lieu thereof.

SALE OF MR. COX'S SHORTHORN HERD,

AT BRAILSFORD HALL, DERBY,

ON WEDNESDAY, Nov. 9.

BY MR. JOHN THORNTON.

Any one who has seen the herd of yearling bulls at the spring fairs in Derby must have noticed the want of blood and character in the general stock of the county. Sir John Crewe and Mr. Chandos Pole Gell both introduced some pedigree cattle into the district, and Mr. Cox also brought a few to Brailsford, between Derby and Ashbourne, fully twenty years since. He took his cue from Mr. Parkinson, and Mr. Booth, of Cotham, and visited Kirklevington, in the Spencer period, when that "love of the Shorthorn was implanted in his bosom," while as he said it at the luncheon, "he should like to see implanted in others." Eight years ago his small holding became overstocked, and a local firm dispersed his Shorthorns and general stock, even to the dairy utensils. But he was in the next year again, and bought old Harmony, of pure Bates' blood, and Sir Chas. Knightley's Wheedle calf by Second Grand Duke of Oxford (17996) at Mr. Leeke's sale. These, with one or two private purchases, were the beginning of the present herd. A long absence from home left the stock in the bailiff's hands; and, with the county belief strong within him, the man used an unpedigreed bull, to the disgust of his master and injury of the stock. Mr. Clayden's sale in 1865 supplied a couple of good cows, Sunshine and Daphne, and with one or two other purchases the herd outgrew the place. We had understood that the sale was to have been in the spring, but was postponed until autumn; and when autumn came, the dry summer and foot-and-mouth had done such mischief, the sale was put off again until Lord Mayor's Day. Fortunately, the day, out of town at least, turned out very bright, although it was very misty in the morning, and by noon a good company had assembled. These Mr. H. Chandos Pole Gell and Mr. Cox entertained in the commodious coach-house with a capital lunch and champagne. After the customary toasts, of which Mr. Cox delivered himself with much humour, the company adjourned to the ring. Although the sale was, as the auctioneer said, "out of season," and the stock not in that condition they might under more favourable circumstances have been, yet the company seemed to bid well, and there was good local competition. Mr. Clayden's Daphne, a fine cow, newly calved, and with an enormous udder, was put in by a dairyman at 30 gs., and Mr. George Sauday bid for her, but she went to Captain Aveling at 35 gs. Sarah Ann, of the Osberton Scraphi tribe, and the property of Mr. Blackwell had been walked from a distance, and looked stale, so she went cheap to Mr. Arthur Garfit, who also bought Wedlock out of Wheedle, low in condition and cheap enough at 50 gs. Her daughter, by Mr. Torr's Grand Marshal, was one of the best animals in the sale; and brought out among an aristocratic company she would have fetched double the 53 gs. Mr. Curtler gave for her. Maria 11th (33 gs.) and Maria 14th (24 gs.), both bred at Cotham, went to the Rev. Mr. Wilson, in Shropshire; and Mr. John Norwood, of Newark, took Statera at 39 gs., and Harmony 4th, a good roan heifer, at 34 gs. Adeline made 45gs., to Mr. Williams; and the Harmony cows, badly crossed, went only at low prices, two making 24gs. each.

The bull calves, sold after their dams, went off remarkably well, Julius making 28gs., and Bismarck 21gs.; whilst the competition for the extra stock, with a cross or two of blood, drew great spirit out of the men of the district, and two of them fought over a fine roan in-calf heifer up to 41gs., and the others went up to 23gs. and 27gs. each. Altogether the sale was considered a success, with a sum total of about £1,356 3s. 6d., or an average of £26 2s. 7d. for the herd of forty head, the cows and heifers averaging within a few shillings of £30 each.

CALENDAR OF AGRICULTURE.

In fresh weather plough stubbles for wheat fallows in the first place, in order that the stiffest soils may have the benefit of exposure to the atmospheric changes, which, by alternately contracting and swelling the soil, crumble and dissever the particles into a minute adherence. The furrows must be deep and square cut, and the edge that is raised from the coulter and share placed thoroughly vertical, in order to expose both sides equally to the air. Being placed into this position by the shouldered width of the mould-board, it matters not what name the plough enjoys in the maker or in the design, in the iron or in the timber. Stiff clays require the power of 3 or 4 horses, as a deep ploughing raises earth for the summer workings preferably to a shallow winter-furrow, and a deep ploughing in the spring. Plough in succession the stiffest green crop lands, and also the stiffest leys for Lent crops.

Continue the cutting of drains to half depth, to be dug out and filled in dry weather; mend roads and cast up earths for composts; collect for manures all earthy and vegetable substances that can be got in any shape or quality.

Flood meadows, and lay dry occasionally.

Cut underwoods and fill up vacancies by planting and layering. Plant all kinds of forest trees, especially ash and oak, single. Standard trees in corners or in clumps, are treated as directed for gardening, with guano and dung. Keep plantation fences in good order to prevent trespass, a sure mark of slovenly management. Plantations of all kinds with the fences are best placed in the management of the landlord, who cuts the wood into periodical sales, which supply the wants of the country.

Raise turnips from the ground, and cut from the bulbs the tops and roots, and store the crop in a thatched longitudinal heap at the homestead on a dry bottom. Give fresh tops to young cattle in the yards or to store sheep in the fields.

Early lambs will be dropped this month—feed the ewes largely with juicy food under a good shelter.

During frosty weather thrash very frequently by machinery, and litter the yards very often and thinly. Machinery will cut the straw by knives into short lengths on the upper floor, on which the scutching is done, and hence conveyed on travelling carriers, supported by three-legged standards, to any part of the yard, for food as chaff, or for promiscuous litter. This provision is well adapted for large farms, and straw in short lengths are very conveniently managed in the yards, and covered in the drills of land.

Collect earths to the compost heaps, and carry lime for mixing with the earths. Cart stones to the places required for draining, and carry fuel, timber, and faggots for domestic and other purposes.

The systematic arrangement of farm labours for the mid-winter months consists in ploughing and planting in fresh weather and in carting operations in frosty weather. The thrashing of grain is done by machinery in all weathers, at regular intervals, to supply straw for common use, and thrashing with flail still goes on with daily labour, evincing a prejudice of slowness, wholly incompatible with the present speed of steam and telegraph. It continues the stolid character that has ever been attached to the cultivators of the soil in expending five times the cost in the flail over steam in a non-productive point, instead of increasing the produce, for if £5 were

paid for thrashing one quarter of wheat it would produce only eight bushels of grain.

The cattle in the yards, cribs, and fattening houses, must be supplied by daybreak with food in a fresh condition, as turnips and other roots, straw, hay, and chaff, in quantity for the day's consumption. The turnip troughs are carefully cleaned out by shovel from mud and filth before the fresh turnips are deposited—the straw racks are frequently shifted in position in order to prevent dry places underneath, and to maintain a uniform soaking of moisture over the yard, of which the surface must be kept level and frequently and thinly littered with short cut straw as has been mentioned. In this way, and in most situations, all the moisture of the yard will be absorbed by straw and litter; and after all that has been spoken and written on the subject of liquid manure, its warmest advocates have been compelled to acknowledge that it is most beneficially applied by being absorbed by earths and earthy matters. In very rainy localities the extra quantity of moisture from the heavens should be carried away by cave-spouts into a culvert, for if allowed to pass through the feces and straw of the yard, it will carry away with it the urinary liquid which forms a chief value of the fecal compost.

The sheep in the fields that are fattening on turnips sliced into troughs, or which are in store keeping in fields of grass or stubble, must have fresh food by daybreak for a day's consumption, in fresh sliced turnips, and in roots drawn from the field in the morning. Sheep confined on the grown crop by hurdles or other light fencing, get a fresh space of ground every three or four days, as the surface is cleared of roots. It is of great moment in the feeding of animals that the food passes into the stomach of the beast in the shortest possible time from being separated from the ground, in order to have the benefit of the vegetable freshness—a mighty element of nutrition. With this view the storing of roots is not eligible except in early climates, shooting into tops, and where snow lies long and deep. The last case is not very frequent, and the former is confined to the extreme southern counties.

Pigs fattening in sties in two animals together are supplied with a mashed food of steamed roots and meals in mixture of two meals daily, and in the last month of fattening with a meal of raw grain, as beans, oats, and barley, in order to whiten and consolidate the flesh. In the store yard the younger animals are supplied with roots, raw and steamed, and with abundance of litter.

Poultry are fed with light grain, and with steamed roots and meal, placed in troughs under a shed. A fresh supply of water is required.

Work-horses are treated with steamed potatoes in the evening meal, and benefit is thought to ensue. But the horse is a dry feeding animal, and is much exposed to weathers, and warm food will open the pores of the skin to the reception of cold. Hay, oats, and pea-straw suit the dry constitution of the horse—pigs are the only favourites of cooked food.

Early in this month, or rather in last month, the farm buildings should be insured by the landlord, with a small part by the farmer for such articles as he is bound to keep in repair. The crops of the year, with the animals, are insured at the farmer's cost, and now very cheaply in an office of the special designation, rendering a neglect doubly culpable.

CALENDAR OF GARDENING.

KITCHEN GARDEN.

Protect artichoke beds with three inches of half-decayed leaves strewed over the surface, or if the land be stiff and clayey, with as much coal and wood ashes.

Asparagus is easily forced upon deep beds of leaves, raked from woods and parks, avoiding those of laurels and of evergreens generally. The plants should be prepared in proper beds for the express purpose, and selected from the best two and three-year old stock. Brick pits are the best erections, but wooden frames set upon leaves, with warm linings will do well.

Earth up early for the last time very high in the ridge. Excite sea-kale, as directed for asparagus. Much litter is prevented by using pits and darkened frames, with good linings.

Trench deeply and manure richly lands intended to grow onions. Ridge ground in all vacant places. Cut the soil into long and narrow spadefuls, and place the slices in a half-vertical position, with a corner standing upright, with cavities open at the bottom, to allow the free permeation of air and moisture. In snowy countries these openings lodge the snow, which is dissolved into an ammoniacal liquor of much benefit to the land. The alternate thaws and freezings expand and contract the ground into a crumbling condition, of great benefit in cultivating all stiff lands, as clay and meagre loams.

Frost may set in early, and, therefore, every means of defence for plants in frames, under glasses, and in warm borders, such as matting, littery straw, and fern, ought to be at hand. In this way late-sown radishes are preserved under straw, which, however, should be raked off in open sunny weather. All is contingent, and if the weather is open, there is every probability that it will be wet, and then to trample and work ground saturated with water is only to do mischief. During this month all operations must be done in dry weather, for otherwise the temperature of the land will sustain much injury.

The relish and the rarity of getting green vegetables, as radishes in mid-winter, is well worth the small expense and trouble, as the late autumn sowings are rendered with some small attention into an edible condition. Glass gardening may not engage the farmer, but a small portion of it will be agreeable and useful, and managed by otherwise unemployed hands.

Collect and prepare manures in the liquid form, and in a dry compost. Lay the former on lands for the early spring crops, and dig the latter into the ground, or spread it over the surface as a thick top-dressing, to rot and dissolve during winter. This mode of applying manures protects the lands from waste, and increases the temperature, preserves the winter-grown plants, and promotes an early spring vegetation; it therefore merits a large amount of attention.

FRUIT DEPARTMENT.

Look over any stores of fruit, and remove decaying apples and pears. A dry cool air and a covering of dry straw, are the best preservers. Pears should be kept in a warmer situation than apples.

In open weather, plant fruit trees and fruit-bearing shrubs of all kinds in the garden and in the orchard. The shrubs will be inserted on cultivated ground, dug, and well manured. Prune the roots of the sets within a short distance of the stem by shortening the loose fibres; and beneath the insertion in the ground, place a quantity of

guano mixed with earth in proportion of 1 to 4 or 5, raised in the edges, so that the incised roots are in immediate contact with the mixture. A very quick and strong growth of the plant will ensue to last for several years. The distance between the sets of shrubs varies according to the bulk of its growth from 2 to 5 feet, a medium being about 4 feet for the larger kinds.

Fruit trees must have a width of 20 feet between the rows, and of 15 feet between the trees in a line, each tree occupying a diameter of 18 feet. The land may be deeply trenched in the whole surface, or a pit may be dug and manured in an extent of 3 to 4 feet across, to hold the tree; but no lasting advantage has been gained by any preparation of the land, and only for a few years. Prune the roots of the young tree that is about 5 or 6 feet high, shortening the long fibres closely in a length; raise by the spade the sods of the surface in an extent and depth to hold the roots, and place the tree on a thin layer of mixed guano; replace the turfs on the soil over some short dung, and place a thick mulch of rough farm-yard dung around the tree 4 feet in diameter. Protect the tree from rodent animals by a wire guard 2 feet high, and if the tree is single in open grounds, place a three cornered fence of light posts and cross bars 5 or 6 feet high above the reach of grazing animals, and widening at the top by the posts leaning outwards, for the greater defence against damage from the height of animals. In this position the trees may grow unmolested.

FLOWER GARDEN.

If snow falls, shake it from the evergreens before the sun shines. Remove the litter of all kinds, and also from lawns and gravels. Protect the glasses of any pits or greenhouses by mats or screens, or rollers; give air, but little water. Straw mats, skilfully made, with bands and strong packthreads or cord, afford the best protection to frames and low pits.

During this month every labour is contingent on frost-bound soils, or lands drenched with rains; but much use may be made of the open intervals of weather in digging and manuring the land for future crops, and in planting the larger vegetable growths, so that no time is lost.

THE RAILWAYS AND COUNTRY CORN DEALERS.

—An action of importance to railway travellers was tried in the Court of Exchequer before Mr. Baron Martin. Mr. Buckmaster, a miller, living at Framlingham, Suffolk, a season-ticketholder on the Great Eastern Railway, went on the morning of the 6th of September, 1869, to the company's station at Framlingham, with the intention of coming to London by the train advertised to start at 6.45, in order that he might attend the London corn market. Owing to the negligence of the fireman, the fire in the engine was not sufficient to get up the steam, and consequently the train was unable to start. The plaintiff complained to the station-master, who brusquely told him that if he desired to go on he must pay for a special train. The plaintiff thereupon ordered a special train, for which he was charged £39 14s., but not arriving in London in time for the market, he sustained a further pecuniary loss of £10. He then brought an action to recover the amount he had paid for a special train, and the money he had lost by the loss of his market. Mr. Baron Martin, in summing up, said that no action would have lain against the company for any alteration of trains or any delay in the

starting or arrival of trains arising from accident or causes of a similar character, but in this case the delay arose from a clear neglect of duty, from the fireman not rising early enough to get up the steam. The company said they would use every exertion to insure punctuality, but had they done so in this case? No exertion was used at all. Then they said the departure and arrival of trains at the times stated would not be guaranteed nor would they hold themselves responsible for any delay or any consequence arising from it. People guilty of negligence always said, "Mind, I won't be responsible for it."

That was nonsense. It was like a man striking another on the head, and then telling him he would not be responsible for the consequences. The real question was whether there was gross negligence or an absence of reasonable exertions to ensure punctuality. With regard to damages, his lordship expressed the opinion that plaintiff was entitled to the £39 14s., and said it was astonishing that the company had not returned the money. He also saw no objection to the jury giving the £10 for loss of market. The jury almost immediately returned a verdict for the plaintiff—damages £49 14s.

FOREIGN AGRICULTURAL GOSSIP.

The cattle plague is stated to have broken out with some virulence in the districts bordering on the River Plate, and an equally virulent disease is reported to have set in among sheep in the same part of South America. A few details as to Ohio breeding farms may not be unacceptable. The breeding farms of Messrs. Delano and Crouse lie some six miles north of Chillicothe, and are situated upon that beautiful and romantic little stream, the Kinnikinick. Mr. Delano has only recently associated himself with Mr. Crouse in the breeding of thoroughbred stock, his attention having hitherto been almost entirely directed to trotters, of which he has a fine collection. Messrs. Delano and Crouse have spared no expense in collecting a stable of thoroughbred colts and fillies. New stables have been erected, in which the facilities afforded for proper ventilation are of high excellence; the stalls, loose boxes, &c., are also large and roomy. Eight miles south of Chillicothe lies the estate of Mr. D. R. Harness, a gentleman long associated with the American turf, who, after a brief retirement, may be said to have returned to his first love, and is now in possession of a fine little stud of thoroughbreds. Mr. Harness recently purchased in Kentucky a colt and filly by Asteroid, considered one of the best horses ever bred in the United States. Mr. Harness, however, although placing a high value on his Asteroid colts, considers a chesnut colt by Boven, out of a dam of Luxembourg, the best animal now in his possession. The question is being discussed in American circles whether rearing thoroughbreds pays. It would seem that it does; at any rate, in some instances. Thus the late Mr. R. A. Alexander purchased, in 1856, of Mr. J. L. Bradley the brood mare Bay Leaf for 1,000 dollars. Since Bay Leaf became Mr. Alexander's property she has had the following produce: 1858, a bay colt, Rubicon, by Lexington (sent to England); 1859, bay filly, Bay Flower, by Lexington; 1860, barren; 1861, bay colt, Beacon, by Lexington; 1862, barren; 1863, bay colt, Bayswater, by Lexington; 1864, bay colt, Baywood, by Lexington; 1865, bay colt, Bayonet, by Lexington; 1866, bay filly, Niagara, by Lexington; 1867, bay colt, Preakness, by Lexington; 1868, bay colt, Bingaman, by Asteroid; 1869, bay filly by Asteroid. Rubicon won a stallion stake at Lexington, Kentucky, worth about 3,000 dollars, and was sold for 3,000 dollars, to go to England. Bay Flower won many races, her winnings amounting to something like 3,000 dollars. Beacon was sold for 6,000 dollars. Bayswater won many races, the Paterson St. Leger among them, winning something like 5,000 dollars; and he was sold at five years old for 3,000 dollars. Baywood never ran, but Mr. Alexander refused 10,000 dollars for him when a two-year-old. Bayonet was sold as a yearling for 2,700 dollars, won many races, and was sold for 6,000 dollars. 12,000 dollars was afterwards refused for him. Niagara has won several races, and was sold as a yearling for 2,500 dollars. Preakness realised 2,000 dollars as a yearling, and won the Dinner Party Stake, worth 19,500 dollars. Bingaman realised 4,000 dollars as a yearling, and the bay filly foaled in 1869 sold as a yearling for 1,120 dollars. The 1,000 dollars invested by Mr. Alexander, in 1856, in the purchase of the fruitful Bay Leaf may thus be said to have yielded a good annual income ever since.—A Chicago firm has patented a "palace stock car" for use upon American railways. The car is roomy, and is so arranged that it will contain from sixteen to eighteen head of horned cattle or horses, and afford at the same time each animal a separate stall. The construction of the stall is such that it

can be adjusted to the size of the animal. As the car is longer than the ordinary cars used for stock purposes, it can be made large enough to permit an animal to lay down and rise up at his convenience. A feed-box is placed at the head of each animal, and into this box feed is conveyed by a spout connected with a feed-bin at the top of the car. By this arrangement stock are enabled to eat and enjoy their meals regularly while being carried over a great extent of country. Animals *in transitu* in the new cars can also be furnished with ample supplies of water, since under the feeding-trough, on opposite sides of each half of the car, is an iron cylinder or water-tank, about a foot in diameter, with openings in the centre of each stall. An iron tube passes under the car, and connects the two water-tanks; and by means of a reservoir at the end of the car, the tanks are supplied with water from the railroad tanks. It requires but a few minutes to water the stock by this arrangement; in fact, water is constantly before them. The car can be loaded in from eight to ten minutes, and when loaded one-half the cattle *in transitu* stand facing opposite sides of the car. It is calculated that by the new cars three days will be saved in the conveyance of stock between Chicago and New York, as it will no longer be necessary to make long stoppages to give the stock rest, feed, and water. Stock will also not lose weight on the journey, while labour will be economized in every train.

RULES FOR MILKING.

Five per cent., and perhaps ten, can be added to the amount of milk obtained from the cows of this country, if the following rules are inexorably followed:

1. Never hurry cows in driving to and from the pasture.
2. Milk as nearly at equal intervals as possible. Half-past five in the morning and six at night are good hours.
3. Be especially tender of the cow at milking times.
4. When seated, draw the milk as rapidly as possible, being certain always to get it all.
5. Never talk or think of anything beside what you are doing when milking.
6. Offer some caress and always a soothing word when you approach a cow and when you leave her. The better she loves you, the more free and complete will be her *abandon* as you sit at her side.

We append the not uncommon practice:

1. Let some boy turn the cows away and get him who is fond of throwing stones and switching the hind ones every chance he gets.
2. Milk early in the morning and late at night, dividing the day into two portions, one of fifteen hours and the other nine.
3. Whack the cow over the back with the stool, or speak sharply to her if she does not "so" or "hoist."
4. Milk slowly and carelessly, and stop at the first slacking of the fluid.
5. Talk and laugh, and perhaps squirt milk at companion milkers, when seated at the cow.
6. Keep the animal in a tremble all the time you are milking her, and when done give her a vigorous kick.—*American Paper.*

AGRICULTURAL REPORTS.

BEDFORDSHIRE.

We are glad to see an upward tendency in the price of wheat, and hope it may be maintained. This grain has been drilled this year, as last, in many cases before the rains came, very dry, but it seems to be coming very nicely. Wheat, we think, yields well this year in most parts, and will be quite an average. Barley is of bad quality generally, but appears to yield well, and makes up in quantity, especially considering the dry season. Beans and peas also appear to yield well, and the straw being harvested well makes it very valuable, hay and clover being so dear and scarce. The root crop is good generally, especially the mangold and kohlrabi. The swede turnip for the most part suffered very much from the fly, which made it light. We wonder that kohlrabi is not more widely sown, as they are invaluable to a farmer, yet in many of the midland counties they are scarcely known. All kinds of stock fatten fast on them, and are very fond of them. The potato crop is very good, great weights per acre being recorded in many parts. Linseed cake still maintains its price, although corn is so low in the inferior quality for feeding purposes. Meat is fetching high prices, and is very scarce, especially beef. All kinds of beasts came off grass so low in condition that they must necessarily take some time to get meat. Water is very scarce in many places, although we have had some nice rains; the springs appear to be so low from the lengthened drought of the summer months.—Nov. 23.

NORTH NORTHUMBERLAND.

We have made brief reports at various periods during the late almost unprecedented dry season. Since our last notes, taken eight weeks ago, we have experienced a continuance of very changeable weather; taking data since the second week in October, up to which period very little autumn tillage could be effected, both surface and subsoil being as hard as brick earth. On the 10th sleet and rain fell, with a stormy N.E. wind; Border Hills all under snow. A few dry, cold days intervened, and farm labour was vigorously pursued—potato lifting, wheat sowing, &c.—a good breadth being planted during the week under most favourable circumstances. The turnip crop (at least, all the late resown) is improving rapidly in growth of top. Swedes, as reported in our last, were too far gone with disease and vermin ever to improve, many a broad acre being barely worth the lifting. Where early sown, on fine land, a moderate average crop has been saved, but generally not in a sufficiently healthy state to store for spring feeding. The weather during the past five weeks has been winterly: rain, snow, gales of wind, hail, and on two occasions heavy peals of thunder, with some casualties by lightning. The present week quiet, with light foggy rain. Land in good condition for autumn deep ploughing, but the wet has not penetrated through the hard dry subsoil, and the surface sponges up with the traffic. The young turnips, which promised favourably a month ago, have received a check by the late severe frosts and gales. Pastures, which assumed a green surface after the first rain, afford a very scanty bite for sheep. Cattle on all exposed situations, if not under hovel shelter, will lose in health and condition. As a summary, we anticipate an expensive and hard-feeding winter for all flockmasters who care for the well-doing of out-door stock generally. The late corn crops have now been fairly tested, and the grain generally is sound, dry, and of full average quality. Barley, as the crop of the season, has been freely thrashed, and comes quite up to valuation in weight; on strong land the colour is a little dark for the maltster, and the market value varies much. Wheat good in quality but light of straw; rather under average quantity per acre. Oats good and fine, but a very small acreage return. Potatoes a fair crop, and quality sound. Our labour market is not over-supplied, and every willing, able-bodied man finds full employment. Barn and field female helps in request at fully fifty per cent. over the rates of twenty years ago. As referred to above, deep tillage extends gradually over

our district, and the "steam-horse" is in rather extensive request. Machinery is making progress in every department of agriculture; the sturdy fallman, the immense boards of immigrant reapers and scythemmen, and last, though not least, the able-bodied whistling ploughman, are all dying out, to be superseded by educated mechanics. Still, as belonging to the old school of the early days of this century, we can recollect greater acreage crops of cereals and roots than we have yet seen produced by the new system, with all the extra expensive artificial auxiliaries. Have the seasons become less favourable, or our soils more exhausted?—Kov. 25.

REVIEW OF THE CATTLE TRADE DURING THE PAST MONTH.

The cattle trade has been free from any important feature during the month. The tone, generally, has been steady, owing principally to the prevalence of cooler weather, and the quotations have been fairly maintained. The stoppage of French and German beasts at the waterside continues, and naturally decreases the arrivals at the Metropolitan Market. It may not be out of place here to suggest that now that it is determined to detain stock at the waterside, the regulation may be extended to the receipts from all foreign ports, in which case the authorities could hardly refuse to rescind the order, so far as the arrivals from our own grazing districts are concerned, compelling the compulsory slaughter, within the four mile radius of Charing Cross, of all stock once exhibited in the market, an order which in many cases proves very irksome to butchers. A decided improvement has taken place in the condition of the Scotch and English arrivals. At one time the best Scots and crosses were making as much as 6s. 2d., but at the present moment the top quotation does not exceed 5s. 10d. per 8lbs. The supply of food in the pastures has increased, and as the root crops have yielded well, there is still a moderate quantity of hay untouched.

As regards sheep the show has been about an average. Fine breeds have been in request at full prices, the best downs and half-breds selling at 6s. 2d. per 8lbs., but for other qualities the demand has been inactive.

Calves have been in limited request, and the pig market has been in a quiet state.

The total imports of foreign stock into London during the past month have been as under:

	Head.
Beasts	14,906
Sheep	43,838
Calves	2,177
Pigs	2,463

COMPARISON OF IMPORTS.

Nov.	Beasts.	Sheep	Calves.	Pigs.
1869	9,964	32,091	1,713	2,208
1868	9,391	18,162	598	353
1867	10,761	33,203	618	2,069
1866	13,278	38,389	1,290	1,187
1865	16,254	52,517	2,526	7,770
1864	17,137	34,792	2,970	3,947
1863	11,020	30,347	1,770	2,202
1862	6,839	28,577	1,659	633
1861	5,295	27,833	946	1,241
1860	6,961	22,723	1,604	828
1859	5,927	21,907	997	159
1858	4,786	18,258	1,174	156
1857	4,409	17,830	2,687	136
1856	6,102	16,380	1,152	309

The arrivals of beasts from our own grazing districts, as well as from Scotland and Ireland, thus compare with the three previous years:

From—	Nov., 1867.	Nov., 1868.	Nov., 1869.	Nov., 1870.
Lincolnshire, Leicestershire, and Northamptonshire	8,760	9,500	9,550	5,250
Other parts of England.....	2,640	1,950	2,048	1,450
Scotland	43	635	158	1,020
Ireland	1,350	708	2,312	620

The total supplies of stock exhibited and disposed of at the Metropolitan Cattle Market during the month, have been as under:

Beasts	15,570
Sheep	96,920
Calves	2,232
Pigs	1,670

COMPARISON OF SUPPLIES.

Nov.	Beasts.	Sheep	Calves.	Pigs.
1869	21,390	77,990	1,604	615
1868	19,249	98,390	1,048	1,404
1867	24,080	109,960	1,016	2,350
1866	24,660	95,800	1,190	3,090
1865	36,820	167,230	2,858	2,811
1864	32,600	114,300	2,587	2,900
1863	27,704	99,130	2,156	3,170
1862	30,139	110,020	2,313	3,172
1861	26,590	109,370	1,370	3,480
1860	25,400	103,600	2,112	2,920
1859	26,492	120,840	1,299	2,800
1858	24,856	114,643	1,437	2,970
1857	25,383	103,120	3,002	3,037
1856	25,454	105,750	2,096	3,415

Beasts have sold at from 3s. 4d. to 6s., sheep 3s. 4d. to 6s. 2d., calves 3s. 6d. to 5s. 10d., and pigs 4s. 4d. to 6s. 2d. per 8lbs. to sink the offal.

COMPARISON OF PRICES.

	Nov., 1866.	Nov., 1867.
	s. d. s. d.	s. d. s. d.
Beef from	3 6 to 5 4	3 2 to 5 2
Mutton	3 8 to 6 4	3 2 to 5 0
Veal	4 2 to 5 10	4 4 to 5 8
Pork	3 10 to 5 2	3 4 to 4 2
	Nov., 1868.	Nov., 1869.
	s. d. s. d.	s. d. s. d.
Beef from	3 0 to 5 4	3 4 to 5 10
Mutton	2 10 to 5 4	2 6 to 5 10
Veal	3 6 to 5 6	4 0 to 6 2
Pork	3 4 to 4 6	4 4 to 6 0

The dead meat markets have been fairly supplied. The trade has been rather quiet at 3s. 4d. to 5s. 4d. for beef, 3s. 8d. to 5s. 4d. for mutton, 4s. 8d. to 5s. 4d. for veal, and 3s. 4d. to 5s. 4d. per 8lbs. by the carcase for pork.

AGRICULTURAL INTELLIGENCE,
FAIRS, &c.

BARNET FAIR.—There was but a limited supply of horned stock, most of which was of inferior class; young store cattle made good prices. The horse fair comprised a miscellaneous class of animals; sound horses for heavy draught work sold at prices varying from 15 to 25 gs., and nags and ponies 8 to 16 gs. There was but a small lot of sheep on sale, and the trade was dull. Grass feed in abundance in this district, and the pasture lands are studded with outlying cattle.

BLAIRGOWRIE MARTINMAS CATTLE.—The number of good cattle exposed was small, and prices were high. Best fat bullocks £20 to £23, others £14 to £18. Best beef ranged from 10s. 6d. to 11s. per Dutch stone, second class 9s.; best mutton was also dear, and sold from 8d. to 9d. per lb., and good demand.

BOSTON FAT SHEEP MARKET.—Only a small supply; prices (with anything but a brisk trade) ranged from 7½d. to 8½d. per lb.

CROWLE FAIR.—There was a large number of beasts for this season of the year, and a fair amount of business was

transacted. The horses were of an inferior kind, and very few changed hands. Pigs sold rather in favour of the seller.

DOUNE SECOND TRYST.—There were one or two good lots of Highland heifers, a lot of capital stirks which fetched the high price of £11, and a few good Ayrshires. Otherwise the lots shown were of an inferior class—the residue of recent markets. The best lots of the West Highland stock were sold on Tuesday. The prices of these were reported to be quite equal to those current at the tryst at Doune in the beginning of the month. On Wednesday morning, however, the demand opened quiet, owing to the high prices which were sought, and as the day progressed the stiffness increased. Those who sold in the morning at the value then offered did best; those who waited, thinking that the demand would improve, found themselves deceived, because in the afternoon they were glad to accept less money than what they were offered at the beginning. In one instance a lot of two-year-old West Highlanders were sold at 12s. 6d. a head less after midday than could have been obtained at an earlier stage of the proceedings. Highland heifers sold best, there being a fair demand for those from Lancashire. Stirks were very stiff, as indeed were all the other classes of Highlanders. With the exception of a few lots, this class of cattle were back from 10s. to 25s. a head as compared with last Doune tryst, and a clearance could not be effected. For Ayrshire stock and crosses the demand was equally stiff, and a considerable number remained unsold at the close. Altogether the result would seem to indicate that store stock have for the present reached their maximum value, and lower prices may now be anticipated. The show of sheep was small, and consisted chiefly of blackfaced ewes. There was also a couple of lots of wethers and a few whitefaced tups. Generally the demand was slow, but the prices obtained were much about the same as those current at the first market. So little business was done however in this department that the rates obtained can hardly be accepted as a criterion for future quotations.

DURHAM FAIR.—Cattle principally, of which there was a large supply, but the demand was not in proportion. Two-year-old heifers and steers £9 to £10, cows £14 to £23.

FROME CHEESE FAIR.—The morning was fine, and there was a large attendance. There was an average supply of cheese. Prices, 56s. to 72s.; Cheddar, 69s. to 75s.; skim, 25s. to 30s.

GARSTANG NOVEMBER GREAT CATTLE FAIR.—There was a very good show of cattle, which was well looked after. Lean stock sold at good prices, and soon cleared at from £15 to £20 per head. Tuesday's horse fair was not quite so good as in former years but of a better class. Anything useful was soon bought up, especially good cart colts; 25 to 35 guineas for two-year-olds.

GLOUCESTER FORTNIGHTLY MARKET.—There was a shorter supply of stock than at the two preceding markets. Trade in the best quality of beef and mutton was as at last market, but secondary sorts were dull. Beef, best quality, made 8d. to 8½d.; mutton, 8d. to 9d. per lb. Bacon pigs were in short supply, and met a dull sale; prices 9s. 6d. to 10s., and porkers from 11s. to 11s. 6d. per score.

GUILDFORD FAIR being the last autumn fair of this county, a large attendance of farmers and others was attracted. There was a large exhibition of horned cattle. The threatening and warlike aspect of the Continent has had great influence on the cattle trade, and the breeders anticipate that the importation of foreign cattle to this country will be materially checked, and the value of home-bred stock greatly enhanced, and dealers stood out firmly for an advance value of from 12 to 20 per cent. There was a good show of sheep huddled up on the hill, and among which an active demand ruled. The horse show was moderate; best class animals found buyers, but inferior horses were sold at discount prices. The following were the average selling figures: Cattle—Store steers and stock heifers £8 to £11, beasts for the fattening stalls £13 to £15, dairy cows in full profit £16 to £22, cows and heifers to calve down £9 to £14, beasts in full condition £16 to £24, and rough stock £6 to £10; many droves were not sold. Sheep, young Southdown bred ewes 33s. to 42s, aged ditto 27s. to 30s., tegs and wethers 45s. to 55s., and lambs 18s. to 27s., Cotswold and cross-bred lambs 30s. to 36s., choice lots of lambs 40s. to 42s., and ram lambs 2 to 4 guineas each. Horses—Sound cart horses of good class 25 to 35 guineas, aged ditto 14 to 20 guineas, horses of superior stamp for light

harness work 30 to 45 guineas, nags and roadsters 20 to 30 guineas, horses of good blood and hunters 50 to 70 guineas, ponies 6 to 12 guineas.

LINCOLN FAT STOCK MARKET.—Good show of beasts and sheep, many buyers, and both a good sale, at little under last week's prices. Beef 10s. per stone, ewe mutton 7d. to 7½d., wether 9d. per lb.

LOUTH FAIR.—There was a large show of beasts, including fat and lean, the latter very lean, the former very good. Good fat beasts sold well at from 9s. to 10s. per stone. Fresh steers and in-calfers were good to sell, whilst drapes and inferior kinds made much less money. Heifers and cows with calves at their sides sold at from £16 10s. to £21; ewes sold at—say, 7½d., and wethers 8½d. per lb.

MALTON FAIR.—The late exceptional droughty season, and the demand for good-conditioned cattle, caused all superior animals to be readily taken, but there was a slow sale for others. The show consisted chiefly of Irish cattle, the prices of which ranged from £6 to £14 each. English beasts were not numerous, but those ready for feeding and likely to come out at Christmas were eagerly purchased, at £10 to £18 per head. Scarcely any sheep. The pig market was heavily stocked: fat ones (live weight) fell to 6s. per stone, and small ones had dull sale. Beef 8s. 9d. to 9s. 3d., pork 8s. to 8s. 3d. per stone; veal 8d., mutton 8d. to 8½d. per lb. The horse fair was a poor one, but there was a strong demand for animals fit for the military. Artillery and army horses were sought for, but one dealer with a commission for fifty only purchased one. Prices were £28 to £33 each.

MARLBOROUGH FAIR.—There were fewer sheep penned than since 1864, not more than 4,000 being on the Common. Prices were 4s. a head in advance of Devizes October Fair, and in most cases 1s. to 2s. above Appleshaw and Andover; whilst they were at least from 10s. to 12s. a head dearer than Marlborough August Fair. Mr. Fall exhibited a fine pen of ewes which made 50s., and a pen of 100 very superior lambs at 36s. per head. Mr. Giddings, of Manton, made 45s. of his lambs at home the day previous to the fair; these were resold by the purchaser in the fair at 47s. Mr. Godding, of Brimslade, made 40s. for 200 very matching lambs. Mr. Hillier, Granham, 35s., &c. There were very few ewes penned. Mr. Moore, of Littlecot, made 50s. a head for the cull of everything, the usual run of other lots being from 35s. to 40s.

MARTINSTOWN (DORCHESTER) FAIR.—Judging from the scant supply of both stock and sheep, there was an indication that the fair is declining in importance. But the short supplies are fully accounted for by the prevalence of the foot-and-mouth disease around Dorchester. The prices for every class of animals were maintained. The best beef—the supply of which was exceedingly short—realized fully from 14s. to 15s. per score, the quotations for in-calf heifers ranged from £8 to £12 each, good barreners fetched from £12 to £15, inferior ditto from £7 to £12. Horn ewes sold at from 40s. to 44s., lambs at from 15s. to 23s. For several lots of chilver lambs 22s. 6d. per head was given.

MELROSE FAIR.—Compared with late years, the exhibition of stock was fair, both as to number and quality. There was a great number of stirks sold at good prices, varying from £5 to £10 per head; and one milch cow was sold for £17. There was a considerable show of horses, mostly very old, and of inferior quality, which were sold and resold at various prices; but the few young horses shown were readily sold at very high prices, but of this class of stock there was not a good animal on the ground. There were also a few sheep sold at current prices.

MONMOUTH FAIR.—Stock plentiful. Good animals, beasts in particular, sold well. A large business was done; three-year-old steers' average price, from £15 to £15 10s. Mutton, from 7½d. to 8d. per lb.; fat pigs—porkers, from 10s. to 11s.; bacon, 10s. per score. Store pigs lower than usual.

NEWARK FAT STOCK MARKET.—We had a small market, but a brisk demand for all sorts, and late rates were fully maintained. Prime beef 10s., second quality 9s. to 9s. 6d. per stone; wether sheep 9d., ewes 8d. per lb.; pigs 8s. to 8s. 3d. per stone.

RIPON FAIR.—A tolerable show of cattle. Calving cows scarce and dear. Bullocks and heifers £1 per head dearer. Lean stock plentiful, but bad to sell.

RUCBY HORSE FAIR.—The supply was not equal to the demand, and consequently prices had an upward tendency.

First-class hunters made various prices ranging from £80 to £200; good hacks fetched from £40 to £70; while the rough and inferior classes were quickly bought up at their full value, by French and German agents. The prices ranged from £18 to £30. There was a very short supply of all kinds of cart and town horses, and consequently they realised good prices, making from £40 to £70. Colts sold at from £20 to £44, and yearlings from £15 to £30.

SLEAFORD FAT STOCK MARKET.—A first-class show of fat sheep, which met with a brisk trade. Small show of fat beasts, which were readily disposed of. Good show of pigs, which realised late prices. Mutton realised from 8d. to 9d. per lb., beef from 9s. 6d. to 10s. 6d., and pork 8s. to 8s. 6d. per stone.

TRURO FAIR was a very small one, and business was dull to begin with in all but fat cattle and fat sheep, but at the close the greater part changed hands at about former prices, viz., 65s. to 68s., store beef 35s. to 45s., and cows and calves 56s. to 63s. per cwt.; mutton 7½d. to 8d. per lb. In the horse fair business was more animated than usual, owing to some dealers present buying on French account, and several of the horses were sold at good prices.

WHITCHURCH FAIR.—There was an unusually large supply of horned stock, most of which were in tolerably good condition. These realised fair average prices. Lean stock fared badly, and few sales were effected. The pig market was filled with pigs of all descriptions; there was, however, a notable preponderance of small ones. These did not command very high prices; they were, in fact, cheaper, if anything, than at the October fair. Fat ones met a ready sale, at from 10s. 9d. to 11s. per score.

WORCESTER FAIR.—The supply of stock was comparatively small, but the demand being brisk, a good clearance was effected. A good deal of the best went off as usual by auction, one firm selling nearly £1,000 worth of fat stock. Beef fetched 7½d. to 8½d., and mutton 7d. to 8½d. per lb.; fat pigs 11s. per score.

YEOVIL FAIR.—Beef 13s. per score, average, and mutton 8½d. to 8½d. per lb. The supply of pigs was small compared with former fairs, and trade in them was not over brisk. The supply of store stock was large, and were in good demand, barreners selling from £10 to £14. The horse fair was not extensive. Cart horses realised from £25 to £40 each.

YORK FAIR.—There was an average number of lean cattle. Business was slow during the day, and sales were principally confined to the better classes of stock. English beasts £12 to £17, Irish £6 to £12 per head. No sheep. The bulk of the horses were of only moderate quality, as the war now raging between France and Germany has helped to thin our markets of good animals. The better descriptions of horses went at remunerating prices, few of them remaining on hand. All the coachers, roadsters, and ponies were sold; but the better classes of cart horses only attracted customers. Roadsters and coachers £25 to £32, cab horses £15 to £20, cart and agricultural animals £18 to £30.

LONDON CHEESE MARKET.—We have only dulness to report this week. The demand for Cheshire Cheese is very limited at present, and unless it be for very choice lumps, at moderate prices, buyers can scarcely be secured on reasonable terms. We have, however, to refer to the season of the year as one reason for the present state of trade. The supply of English Cheese is not excessive, and when trade revives it will probably all be wanted at some price; in the mean time some of it is getting out of condition. American Cheese of the finest and mildest character sell pretty readily at 72s. to 74s., but all other descriptions are neglected; a considerable quantity is out of order. The arrivals since our last statement are 25,773 boxes.—CORDEROY and Co., Mill-lane, Tooley-street.

CHESTER CHEESE FAIR.—There was rather more than an average pitch of Cheese, all was sold. The bulk of it was of middling quality, and the prices realised ranged from 55s. to 70s., and some exceptionally fine lots commanded 50s., and perhaps a few shillings more.

CHESTERFIELD CHEESE FAIR.—The market was not so well attended as in former years, prices ruling from 70s. to 85s. per cwt., or from 7d. to 9d. per lb.

GLOUCESTER FORTNIGHTLY CHEESE MARKET was moderately supplied, about 30 tons having been pitched.

There was a ready sale at 70s. to 72s. for best, and 65s. to 68s. for second qualities.

GLASGOW, (Wednesday last.)—An excessively heavy stock of Cheese, which caused sellers to accept lower terms. This, however, had the effect of inducing purchasers to do more business.

POULTRY, &c., MARKETS.—Turkeys, 5s. to 8s.; ditto hens, 3s. 6d. to 5s. 6d.; Geese, 4s. to 6s.; ditto Irish, 2s. 6d. to 5s. 6d.; Ducks, 1s. 3d. to 2s. 6d.; Wild Ducks, 2s. to 2s. 6d.; Surrey Fowls, 3s. to 6s.; Sussex ditto, 2s. to 3s.; Boston and Essex, 1s. 9d. to 2s. 6d.; Irish, 1s. to 2s.; Rabbits, tame 1s. to 2s. 6d.; ditto wild, 6d. to 10d.; Pigeons, 6d. to 9d.; Pheasants, 2s. to 2s. 9d.; Partridges, 1s. 3d. to 2s.; Hares, 2s. to 3s. 3d.; white Scotch, 1s. to 1s. 9d.; Widgeon, 1s. to 1s. 3d.; Teal, 6d. to 1s.; Woodcocks, 2s. to 3s.; Snipes, 6d. to 1s.; Gold Plover, 10d.; Black ditto, 6d.; Larks, 1s. 3d. per dozen. Eggs, best 13s., seconds 10s. per 120.

PRICES OF BUTTER, CHEESE, HAMS, &c.

BUTTER, per cwt.: s.	s.	CHEESE, per cwt.: s.	s.
Normandy.....134to 154		Cheshire, new..... 70 to 84	
Friesland.....136 140		Dble. Gloucester... 74 80	
Jersey.....114 134		Cheddar, old..... 74 94	
Fresh, per doz. ... 17 20		American..... 60 74	
BACON, per cwt.		HAMS: York.....112 —	
Wiltshire, green... 68 —		Cumberland.....110 —	
Irish, f.o.b. 64 68		Irish.....100 124	

HOP MARKET.

BOROUGH, MONDAY, Nov. 28.—A healthy demand still continues for all fine and choice Hops, and the low price at which medium and low are offered attracts the attention of buyers. Fine Bavarian and Belgian samples are still in request; low and medium of that class command little attention. Imports up to the present date amount to 10,612. A better inquiry prevails for 1868 and yearling Americans, which has resulted in some important sales. Latest advices from New York report trade as dull, with a great scarcity of choice hops.

Mid and East Kents	£1 15	.....	£3 10	.....	£7 0
Weald of Kent.....	1 15	.....	3 0	.....	3 15
Sussex	1 10	.....	2 6	.....	3 10
Farnham and Country ...	3 15	.....	4 15	.....	6 6
Olds	1 0	.....	1 15	.....	2 10

CANTERBURY HOP MARKET, (Saturday last.)—The trade has been quiet this week for all but the best sorts, which sell readily at former prices. East Kent's £3 to £7, Mid do. £3 10s. to £6, Wealds £2 10s. to £3 10s., Sussex £2 5s. to £3 10s., 1868 £1 to £2, 1869 £2 to £2 10s.

WOCESTER HOP MARKET, (Saturday last.)—Our market to-day is without any notable alteration in supply or demand, and prices are unaltered, the trade doing being entirely of a retail character; 40 pockets passed the scale to-day, and 24 previously in the week, making the total up to this evening 23,270 pockets. —

POTATO MARKETS.

SOUTHWARK WATERSIDE.

LONDON, MONDAY, Nov. 28.—During the past week the arrivals coastwise have been moderate, but a better supply by rail and road. Trade good for all best sorts at the following quotations:

Yorkshire Regents	70s. to 80s.
Lincolnshire do.	65s. to 75s.
Dunbar and East Lothian do.	75s. to 80s.
Perth, Forfar, and Fife do.	65s. to 75s.
Kent and Essex do.	55s. to 65s.
Do. do. do. Rocks	55s. to 60s.

BOROUGH AND SPITALFIELDS.

LONDON, MONDAY, Nov. 28.—These markets have been but moderately supplied with potatoes. The trade has been rather quiet, at our quotations. The import into London last week was confined to 30 packages from Amsterdam, and 8 from Rotterdam.

English Regents	60s. to 80s. per ton.
Scotch Regents	55s. to 80s. "
Rocks	45s. to 55s. "

COUNTRY POTATO MARKETS, (Saturday last.)—DONCASTER: Only a moderate supply of potatoes on offer, and

last Saturday's prices are fully maintained. Regents 8s. 6d. to 9s. 6d., rocks 7s. to 8s. per load.—MALTON: The prices for potatoes wholesale were flatter; business was done at 56s. per ton, rounds. Quotations: 55s. to 60s. per ton. Pig potatoes dear and scarce; wholesale buyers 40s. to 45s. per ton. Retail, table sorts 6d. to 8d. per stone. MANCHESTER: Potatoes, Yorkshire, 9s. 6d. to 10s. 6d., Scotch 7s. to 9s., Cheshire 6s. 6d. to 8s. 6d. per 252lbs.—YORK: The quantity of potatoes offering was only very moderate, and as there were more buyers for them than of late, the wholesale price rose to 7s. and 8s. per tub of 280lbs. In retail they were from 5d. to 6d. per stone of 14lb.

ENGLISH WOOL MARKETS.

CITY, MONDAY, Nov. 28.—The tone of the wool market is steady, but the transactions in English wool continue to be on a moderate scale. The demand is chiefly for good wether and half-bred wools, for which prices are well sustained, they being very scarce. Noils and brokes are in demand for the manufacture of army materials.

CURRENT PRICES OF ENGLISH WOOL.	s. d.	s. d.
FLEECES—Southdown hogs	per lb.	1 0½ to 1 1½
Half-bred ditto	"	1 3 1 4
Kent fleeces	"	1 1½ 1 2
Southdown ewes and wethers ..	"	0 10 0 11
Leicester ditto	"	1 1 1 1½
SORTS—Clothing, picklock	"	1 4 1 4½
Prime.....	"	1 2½ 1 3
Choice	"	1 1 1 2
Super	"	1 0 1 0½
Combing, wether mat.....	"	1 2½ 1 3½
Picklock	"	1 0½ 1 1
Common	"	0 11 0 11½
Hog matching	"	1 4 1 4½
Picklock matching	"	1 0½ 1 1
Super ditto	"	0 11 0 11½

BRADFORD WOOL MARKET, (Thursday last.)—The tone of the market is still quiet; but there is a healthy firmness that betokens no great alarm on the part of either buyers or sellers. The chances of peace being preserved are regarded as rather increased since last market day, and consequently there is rather less depression. There is still a certain consumptive demand for fashionable sorts of wool, although buyers are reluctant to commit themselves beyond the needs of their machinery. Wethers are still in favour, and bring fully late prices. The tone of prices at the colonial sales, and the great firmness still shown by farmers and country holders, make any serious giving way here almost impossible, and staplers hold by their stocks with confidence.—Bradford Observer.

LEEDS (ENGLISH AND FOREIGN) WOOL MARKET Friday.—There has been a diminished demand for English wool during the week, partly owing to the public sales in Scotland and partly to the untimely and outrageous proceedings of Russia endangering the peace of England and other nations not at present engaged in war. The sales in Scotland indicate a moderate range of prices, which no doubt suffered from the above cause. Considerable loss must have been experienced by the holders of wool from last clip. There seems to be a rather spirited demand for some sorts at the London sales for Colonial wool, though it is not participated in to any extent in this district. Prices are moderate, and are kept up by the withdrawal occasionally by importers, who seem to have confidence that better prices may be got next year.

THE TAUNTON FAT STOCK SHOW.—The annual show in connection with the Taunton Agricultural Association took place on Nov. 18. Some of the stock, notably the Devons and Shorthorns, were very fine specimens of their class. Mr. W. Farthing, of Stowey Court, Bridgwater, carried all before him with his Devons, taking no less than five first prizes. The other successful exhibitors of Devons were Mr. J. A. Smith, Bradford Peverell; Mr. T. H. Risdon, Washford; and Mr. R. Farthing, Farrington, North Petherton. Of Shorthorns the principal exhibitors was Mr. J. S. Bult, of Dodhill, who carried off the cup offered by Mr. H. James, M.P., with a beast of the Prince Frederick blood; Mr. O. Hoosegood, of Dillington, taking a prize with a cow of the same breed. Mr. J. W. Paul, Knott Oak, Ilminster, took first honours for the best bull of any breed. Horses were a very poor show, and the chief prizes were awarded to Mr. J. Dunning, Creech, and

Mr. R. Farthing, Farrington. Some of the sheep were unusually good, the principal prize-takers being Messrs. Bond and K. and H. Farthing. Pigs were also well represented: Mr. Taylor, Pool Farm, Taunton, and Mr. W. H. Hewett carrying off the leading prizes. The judges were—Messrs. J. Tyacke, Merthen, Penrlyn; Mr. J. Wippell, Barton Alplington, Exeter; and Mr. T. Bond, Perry Elm, Wellington. The annual dinner took place in the afternoon, Lord Bridport being elected president for the ensuing year.

IMPORTANT TO CATTLE AUCTIONEERS.—A case involving an interesting and important point was decided by the Sheriff at Nairn. An action was raised by Hamilton and Sons, cattle auctioneers, Inverness, against Mr. J. Simpson, for £7 17s. 6d., being the price of a cow sold and delivered by the complainers to defender in May last. Defender averred that the cow was sold when diseased and in an unsound state, and accordingly refused payment of the price. The defender's agent, at the first hearing, raised the preliminary objection that the pursuers had no title to sue; that the cow was not their property, but belonged to the man who put it into the pursuers' sale, and that he was the only party entitled to prosecute. The pursuers' agent replied as salesmen they were bound for the price of all bestial sold at their mart; that they had already paid the owner the price of the cow; and that they had no one to look to for the price but the defender. The Sheriff, after hearing proof, held the objection as good, dismissed the case with 10s. expenses to the defender, and stated in his opinion the proof showed that the pursuers were not the owners of the cow, and had therefore no title to sue, that it should have been the real owner who should have prosecuted.

SHORTHORN SALES AND LETTINGS.

BY PRIVATE CONTRACT.

W. Ashburner's Jessie Catherine sold to J. Crowdsen, and

Baron Blanche to J. Patterson. Capt. Aveling's Moreen, Cashmere, Honeysuckle's red b.c., and Dora's red c.c., sold to Capt. Barker; Young Oxford to Capt. Catling. C. Barnett's Blanche 6th sold to W. Ashburner; Phryne, Peplum, and Pride to T. H. Colman; and Albion to J. Beattie. T. C. Booth's King Richard (26523) let to W. Bolton. J. B. Booth's Banner Bearer sold to Sir W. S. Maxwell, Bart. Lord Braybrooke's Heydon Duke sold to Lord Feversham. J. Brown's Ursula 10th, Duchess of Rutland, Guelder Rose 2nd, Florentia 23rd, Guelder Rose 6th, Ursula 33rd, and Earl of Collingham, sold to J. P. Clark; Fairy Queen, Ursula 32nd, Beautiful Star, Marquis of Thorndale, and Earl of Thorndale to J. Turner; and Second Earl of Collingham to Mr. Thompson. Duke of Buccleuch's Passion Flower's roan b.c. sold to R. Bruce. T. Cloudsdale's Nancy 7th and Jessie Caroline sold to W. Ashburner. Duke of Devonshire's Duarobin sold to W. H. Wakefield. G. Drewry's roan b.c., by Eighteenth Duke of Oxford (25995), out of Elvira 6th, sold to T. Gibbons. J. W. Larking's Duke of Kirklevington let to R. P. Davies. F. Lenev's Grand Duke of Geneva sold to Sir C. M. Lampson, Bart., and J. W. Larking. D. McIntosh's Grand Duke of Havering sold to T. Brassey. A. Metcalfe's Grace sold to D. Webster, and Lady Cradock to W. Longstaff. T. Morris's Airdrie's Duke sold to J. V. Hornyold and R. Guilding. T. E. Pawlett's Rose of Hope's b.c. sold to J. C. Topping. Lady Pigot's Lord of Branches and La Belle Helene sold, and Sidus let, to W. I. N. Angerstein, and Victorious let to Capt. Barclay. J. Richardson's Wild Eyes 27th sold to W. Ashburner. T. Stamper's Cornelian and her heifer calf sold to T. Brown, and Charm and her twin heifer calf to J. R. Singleton. J. Thom's Amelia d'Eden, Maggie d'Eden, and Elsie d'Eden sold to T. Atherton. W. Torr's Warranter sold to H. F. Smith, and Bracelet to E. W. Meade Waldo. Col. Towneley's Royal Butterfly 24th sold to M. Whittington, and Towneley Oxford to Messrs. Hosken and Son. T. Willis's Sea Gull and Venus sold to M. Ford. Earl of Zetland's Musician sold to M. Yeoman.—*Thornton's Circular.*

REVIEW OF THE CORN TRADE DURING THE PAST MONTH.

The four weeks' business—which includes the last Monday in October, and excludes the 28th November—is the subject of the present review. The long-delayed rains had fallen plentifully, and with them came a mild growing temperature which some hoped might last to help them through the winter with their stock; but all this presently gave way to snow and tolerably sharp and frequent frosts, which soon cut off such hopes; and though with a return of rain it has once more become milder, it is not likely, at so late a period, that vegetation will again effectively revive. A fair amount of wheat, we hear, has been sown, and the early plants generally look well—and, maybe, the better for a timely check; but those who were late in sowing will have more difficulties to contend with. What has been done was mostly well done, and there we leave it, with the best hopes of a good gathering, and a remunerative price. It is a pity that the prosperity of British agriculturists should be so often identified with the existence of war, but this has been the case for some time past. This mighty evil has, indeed, been raging for some time close in our vicinity, and British sympathies have done much for the wounded of both nations, little dreaming that the curse might come upon themselves. But a cloud in the East, or rather the Black Sea, very portentous to England and to Europe, has suddenly risen, which, if not dissipated by peaceful diplomacy, may scatter ruin as widely as it is now seen in France. Till Russia avowed her intention to evade the treaty of 1856, the wheat trade, after some

fluctuations, seemed sinking into calm, from the overburdened state of the London granaries; but a change then came over the trade establishing an advance of 2s. to 3s.; and all depends on subsequent events whether this rise is to reach a higher importance, or whether we are to be left only to the effects of the waste already wrought in France. Against any material decline it is to be noted our English supplies have lessened in London, and the weekly sales have, in the course of the month, also fallen off 15,000 qrs., while our averages for the last five years have been 5s. above those at present noted; and, be it remembered, in the last Russian war we rose to 80s. 10d. Such rates, if war should come, we hope will not be reached, for they would oppress the poor; but farmers with bad crops of spring-corn certainly want better than present prices for wheat. Even with our recent advance, we are yet behind other countries. Low-quality wheat at Danzig has brought 60s., c. f. i., for Belgium. Hambro' is also higher. At New York they have advanced 5s. per qr. The scanty information now received in consequence of the war yet leaves these as the most recent prices at the several places named: Red wheat at Hambro' 54s. to 57s., f. o. b.; at Copenhagen, 55s. to 56s., c. f. i.; at Antwerp, 50s. to 63s., f. o. b.; at Rotterdam, white new Zealand 51s. to 58s., f. o. b., fine foreign red being worth 3s. to 4s. more. Saxonska wheat at Petersburg 45s. 6d., f. o. b. The best high-mixed at Danzig 67s., cost, freight, and insurance, included; inferior wheat at Alexandria 43s. 9d., f. o. b. Ghirka wheat has been selling off th

coast from 46s. to 50s.; at San Francisco 39s. per 500 lbs., f. o. b.; and the last telegram from New York quotes 49s. 6d., c. f. i., for old No. 2 Milwaukee, per 480lbs.

We open the present month with Monday, the 31st Oct. The London market then received moderate supplies of English wheat, and good arrivals of foreign. The weather for the previous week having been very rainy the condition of the Essex and Kentish wheat, then only showing moderately, was very much deteriorated, and town millers were averse to buy even at relatively less values, and the few fine dry lots on offer scarcely maintained their former value. There was, however, a good demand for American and Russian sorts for the purpose of mixing, at the full prices of the previous Monday. Floating cargoes were unaltered. The condition of the samples exhibited at the several country markets this week also continuing very bad, universal dullness was the rule. Some, to make way in sales, accepted a reduction of 1s. per qr. Among these were Brigg, Gainsborough, Gloucester, Leeds, Louth, Lynn, and Stockton; while several quoted a decline of 1s. to 2s. per qr., as Birmingham, Bristol, Market Rasen, and Melton Mowbray. Liverpool was 4d. per cental cheaper on Tuesday, and 1d. more on Friday. Glasgow reported a decline of 6d. per boll; but Leith was firm. The scarcity of native wheat at Dublin gave a firmness to Irish samples, but foreign was dull. The prices quoted at Cork were Ss. 6d. to 11s. 7d. per cwt.

On Monday, the 7th Nov., the English supply was lessened, and the foreign further increased. Though but a moderate show of fresh samples was exhibited on the Essex and Kentish stands, and the condition was somewhat improved, the best samples scarcely maintained their value, while inferior were decidedly 1s. per qr. lower. The foreign trade was much reduced by the unwelcome fact that the proposed armistice between Prussia and France was rejected, and prices were barely supported. The values of floating cargoes was, however, maintained. The country trade this week was again heavy and generally weaker, though with a large demand for Belgium on the East Coast. Some farmers would make no reduction, preferring to withdraw their samples; yet Bristol, Gloucester, Gainsborough, Ipswich, Newcastle, and some others, were 1s. down; and Market Rasen, with a few more places, noted a decline of 1s. to 2s. Liverpool, though dull on Tuesday, became firm on Friday. The trade at Glasgow was limited, at unaltered rates; but Edinburgh was rather in favour of buyers. Dublin was again firm for home and foreign produce.

On the third Monday there were but small supplies of English Wheat, and the foreign arrivals were much reduced. The show of fresh samples from the near counties during the morning was limited, and the condition much improved; nevertheless, business was very limited, though rates were without change. In foreign, also, there was but little doing; but holders were very careless about selling. With small arrivals off the coast, values were much as previously noted. Rumours unfavourable to the designs of Russia had on Monday been circulating on the London market, but nothing then took a decided form. As the week progressed, however, it was ascertained that the Northern Power designed partially to violate the Treaty of Paris, signed in 1856, neutralizing the Black Sea, against which our Foreign Secretary having protested, rumours of war became widely spread, and the latest markets noted a rise of 2s. to 3s. per qr. on the previous week's quotations; this was the case at Birmingham, Bristol, Wakefield, these rates being confirmed on the London market of Friday. Liverpool also advanced 2d. per cental on Tuesday, and 6d. more on Friday, making a rise of 8d. for

the week, equal to 3s. 4d. per qr.; and several of Saturday's markets were up 3s. to 4s. per qr. Glasgow's Wednesday's market was only up to 6d. per boll; but Dublin on Friday noted a rise 1s. per barrel on Irish samples, and 1s. to 2s. per barrel on fine foreign.

On the fourth Monday the supplies of home-growth were small, and there was only one cargo of foreign from Petersburg. The number of samples fresh from Essex and Kent was limited, and the condition not so good as in the previous week. Yet the rumours of a possible breach with Russia kept up the values of Friday, which were 2s. to 3s. higher than on the previous Monday, though there was less activity in the demand. The foreign trade was improved to an equal extent, but as buyers had pretty well stocked themselves on the previous market, and there were yet some hopes of peace, the business transacted was small. Floating cargoes were quite as much dearer.

The arrivals for four weeks into the port of London have been 23,701 qrs. English wheat and 68,474 qrs. foreign, against 22,048 qrs. English and 144,094 qrs. foreign for the same time last year. The imports into the kingdom for four weeks ending 12th of Nov. were 2,794,172 cwt. wheat and 357,308 cwt. flour, against 4,586,279 cwt. wheat and 626,143 cwt. flour for the same period in 1869. The general averages commenced at 47s. 3d., and closed at 50s. 5d.; those of London beginning at 51s. 9d., and ending at 52s. 7d. The exports from London in four weeks, were 11,381 qrs. wheat and 155 cwt. flour.

The flour trade, well supplied through the month, both in country and foreign qualities, for the most part ruled dull till the fourth Monday, when Norfolks rose 1s. to 2s., and barrels fully 1s. dearer, being worth 27s., while telegrams from New York on that day quoted 26s. 6d. c. f. and i., and no doubt since the increase of warlike rumours there will be a further rise. As to Paris, all we learn is, that the stock there will hold out for several months, some say till April, and that prices are forcibly kept down by the Provisional Government. The imports into London for four weeks were 85,324 sacks English and 6,894 sacks 34,136 barrels foreign, against 94,008 sacks English and 11,161 sacks 25,416 barrels foreign at the same time last year.

The arrival of maize having been moderate, and the demand steady, prices have advanced 2s. during the four weeks, the advance having occurred on the first and last Mondays at the rate of 1s. each market. As the supplies of oats are now likely to fall off from the closing of the Baltic, and fodder in the country is very scarce, we expect this grain will be dearer through the winter. The imports in four weeks were 21,536 qrs., against 48,596 qrs. for the same period in 1869. Though the United States have a large crop this year none of it can be available before the opening of the canals next May, and quotations now c. f. and i. are 36s. 6d. per qr., while here it is barely worth 32s. in granary.

Though the barley supply of home-growth has not materially exceeded that of last month, the malting trade has been exceedingly heavy, and none but the best samples bring full prices. As we descend, however, in quality, and come into competition with maize and oats, the value relatively increases, and grinding sorts readily have brought 27s. to 28s. per qr., and a large business has been done in floating cargoes. The imports into London for four weeks were 19,360 qrs. British and 27,209 qrs. foreign, against 14,366 qrs. British and 26,633 qrs. foreign for the same time in 1869.

The malt trade has ruled dull for the month, and prices have receded fully 1s., there being yet a large stock of old on hand, and brewers pretty full.

Though the supplies of English oats have been small, and those from Scotland and Ireland trifling, yet foreign arrivals have been free. On the first market there was a decline of 6d., and in the last a rise of 1s., leaving the gain in prices about 6d. to 1s. for the month; and as much more cannot now be expected from the Baltic, rates may yet improve, and the more so if any war should break out with Russia; 38lbs. Russians are worth fully 21s. 6d. per qr.; 40lbs., 23s., and others proportionately. There is, however, a heavy stock in the London granaries. The imports for four weeks were 2,696 qrs. English, 13 qrs. Scotch, 1,200 qrs. Irish, and 259,663 qrs. foreign, against 3,546 qrs. English, 860 qrs. Irish, and 206,167 qrs. foreign last year.

The trade in beans has been slow, with little change of value, excepting on the last Monday, when they rose fully 1s. per qr. With a poor English crop, and but scant expectations from Egypt, we seem likely to be yet dearer. Imports into London for four weeks were 3,056 qrs. English and 5,744 qrs. foreign, against 3,909 qrs. English and 8,888 qrs. foreign in 1869.

The market for peas, with much smaller supplies, has only improved lately to the same extent as beans, viz., 1s. per qr.; but if the navy should contract largely for boilers, there must be a good rise. They are now worth 38s. to 40s., while duns are worth 38s. to 39s., and maples 46s. The imports for four weeks into London were 1,693 qrs. English and 1,453 qrs. foreign, against 3,407 qrs. English, and 7,622 qrs. foreign last year.

The last Manday having brought a large arrival of linseed from India, prices gave way 1s. per qr., but no further decline was expected, and cakes were firm. The month's imports were 72,291 qrs., against 24,274 qrs. qrs. in 1869.

Though not much has been passing in cloverseed, or other agricultural seeds, the tendency of prices has been gradually upwards. America may, however, yet send some quantity of red cloverseed.

COMPARATIVE AVERAGES.

Years.	WHEAT.		BARLEY.		OATS.	
	Qrs.	s. d.	Qrs.	s. d.	Qrs.	s. d.
1868...	69,827½	57 6	76,207½	45 6	5,048½	23 9
1867...	63,391½	69 11	78,252½	41 5	8,464	25 8
1868...	66,613½	51 6	74,887½	47 3	4,646	23 4
1869...	67,506	46 8	72,221½	33 8	4,077½	23 5
1870...	73,662	49 10	85,699½	36 8	4,643½	23 11

AVERAGES

FOR THE PAST SIX WEEKS:	Wheat.		Barley.		Oats.	
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Oct. 15, 1870.....	47 0	36 7	22 5			
Oct. 22, 1870.....	47 3	38 5	22 2			
Oct. 29, 1870.....	43 6	36 9	22 4			
Nov. 5, 1870.....	49 9	36 8	22 7			
Nov. 12, 1870.....	50 5	36 11	23 8			
Nov. 19, 1870.....	49 10	36 8	23 11			
Aggregate of the above	48 9	36 8	22 10			
The same week in 1869.....	46 8	38 8	23 5			

FLUCTUATIONS in the AVERAGE PRICE of WHEAT.

PRICE.	Oct. 16.	Oct. 22.	Oct. 29.	Nov. 5.	Nov. 12.	Nov. 19.
50s. 5d.
49s. 10d.
49s. 9d.
48s. 6d.
47s. 3d.
47s. 0d.

CURRENT PRICES OF BRITISH GRAIN AND FLOUR

IN MARK LANE.

	Shillings per Quarter.
WHEAT, now, Essex and Kent, white.....	55 to 67
Norfolk, Lincolnsh., and Yorksh., red.....	51 62
BARLEY.....	31 to 34..... Chevalier..... 36 42
Grinding.....	30 31..... Distilling..... 35 39
MALT, Essex, Norfolk, and Suffolk.....	60 67
Kingston, Ware, and town-made.....	60 67
Brown.....	49 54
RYE.....	36 38
OATS, English, feed 22 to 21.....	Potato..... 26 33
Scotch, feed, white 21 00.....	Potato..... 00 00
Irish, black 20 21.....	Fine..... 24 28
Ditto, black.....	20 21..... Potato..... 23 31
BEANS, Mazagan.....	38 41..... Ticks..... 38 41
Harrow.....	41 45..... Pigeon..... 45 50
PEAS, white, boilers.....	40Maple 41 to 42Grey, new 38 38
FLOUR, per sack of 280lbs., best town households.....	45 47
Best country households.....	38 40
Norfolk and Suffolk.....	36 37

FOREIGN GRAIN.

	Shillings per Quarter.
WHEAT, Dantzic, mixed.....	56 to 57.....extra..... 59 to 63
Königsberg.....	54 56.....extra..... 57 58
Rostock.....	54 56.....fine..... 57 58
Silesian, red.....	51 54.....white..... 53 57
Pomera., Meckberg., and Uckorurk.....	red..... 54 56
Russian, hard, 43 to 44.....	St. Petersburg and Riga 45 49
Danish and Holstein, red 50 53.....	American 48 53
Chilian, white 60.....	Californian 60 .. Australian 60 62
BARLEY, grinding 27 to 30.....	distilling and malting 34 36
OATS, Dutch, brewing and Poland 23 to 24.....	feed 21 23
Danish and Swedish, feed 23 to 25.....	Stralsund..... 23 25
Canada 20 to 21, Riga 21 to 23, Arch. 21 to 23, P'abg.	22 27
TARES, Spring, per qr.....	small 00.....large 00 00
BEANS, Friesland and Holstein.....	44 45
Königsberg.....	40 to 43.....Egyptian..... 38 40
PEAS, feeding and maple.....	34 36.....fine boilers..... 38 39
INDIAN CORN, white.....	30 33.....yellow..... 30 32
FLOUR, per sack, French.....	41 44.....Spanish, p. sack 00 00
American, per brl.....	23 25.....extra and 'ble. 26 27

IMPERIAL AVERAGES.

For the week ended Nov. 19, 1870.

Wheat.....	73,662 qrs.	49s. 10d.
Barley.....	85,699½	36s. 8d.
Oats.....	4,643½	23s. 11d.

LONDON AVERAGES.

Wheat.....	2184 qrs.	54s. 2d.
Barley.....	1221	37s. 6d.
Oats.....	—	00s. 0d.

BRITISH SEEDS.

MUSTARD, per bush., brown 12s. to 13s., white	9s. to 10s.
CANARY, per qr.....	62s. 66s.
CLOVERSEED, new red.....	68s. 76s.
COBIANDEE, per cwt.....	21s. 22s.
TARES, winter, new, per bushol.....	8s. 8s. 6d.
TRIFOIL, new.....	21s. 23s.
RYEGRASS, per qr.....	28s. 30s.
LINSEED, per qr., sowing 65s. to 70s., crushing	57s. 61s.
LINSEED CAKES, per ton.....	£11 0s. to £12 5s.
RAPESEED, per qr.....	70s. 72s.
RAPE CAKE, per ton.....	£7 15s. 0d. to £6 10s. 0d.

FOREIGN SEEDS.

COBIANDEE, per cwt.....	21s. to 22s.
CARRAWAY, ,, new.....	31s. 32s.
CLOVERSEED, red 54s. to 64s.,	white 68s. 76s.
HEMPSEED, small 42s. to 43s. per qr.....	Dutch 48s. 47s.
TRIFOIL.....	21s. 22s.
RYEGRASS, per qr.....	28s. 30s.
LINSEED, per qr., Baltic 66s. to 69s.....	Bombay 60s. 61s.
LINSEED CAKES, per ton.....	£11 0s. to £12 5s.
RAPE CAKE, per ton.....	£6 15s. 0d. to £6 10s. 0d.
RAPESEED, Dutch.....	68s. 70s.

END OF VOLUME LXVIII.

DEATH OF MR. G. P. TUXFORD.

We regret to have to record the death of Mr. G. P. Tuxford, of the Strand, a gentleman well known in the agricultural world as one of the chief proprietors of the *Mark Lane Express* and the *Farmers' Magazine*. Mr. Tuxford was also one of the originators of the Farmers' Insurance Office, of which he had been for many years a director; one of the early members of the Farmers' Club, and a life governor of the Royal Agricultural Society of England. He was a man of much ability, sound judgment, and great integrity, and was consequently frequently called upon to act as arbitrator in disputed matters of business. He died on Monday, October 24, in the sixty-first year of his age.—*The Illustrated London News*, October 29.

Neither his long residence in London nor the busy occupations of an eminently successful career obliterated his attachment to his native town (Boston) or rendered him indifferent to its prosperity. To the last he took a lively interest in its welfare, and his purse was frequently opened in support of worthy objects.—*The Stamford Mercury*, October 28.

We feel inclined to let such testimony as this, and as borrowed from others, speak for itself. Into the sacred privacy of home we dare not intrude, nor more than glance here at George Tuxford's worth as a son, a husband, a father, or a brother, in which relations he was, so far as human nature can be, almost without reproach. In his more public life, as already intimated, he was ever careful, even jealously so, in the discharge of his duties—a steady friend, a considerate employer, with a fancy to see old faces about him, but still

ready to give the beginner an encouraging word and a helping hand. "Without your kind advice and solid aid," as the late Mr. H. H. Dixon (*The Druid*) wrote on the dedication of his last work, "I should never have faced all the weariness and anxiety of an author's life," and there are others who could speak still more strongly to such aid and advice. As identified more especially with the proprietorship of this Journal we may quote again from a contemporary, *The Gardeners' Chronicle*, which in an agricultural leader of a few months since said, "Everybody knows the perfect independence and straightforwardness of *The Mark Lane Express*. We say so with the most cordial admiration of it," and we venture to borrow these words as an act of justice to the dead. It was Mr. Tuxford's great pride that such a character for the Paper should be maintained without fear or favour, as, it is hoped, it still may be. He died at his house at Barnes after a sudden attack of only two days' duration, although he had never thoroughly recovered from a fall which he met with about twelve months since.

It will be noticed that we have preferred, in some degree at least, to let others speak to the worth of our departed friend rather than to suffer our own sympathies to colour the sketch. From an intimate knowledge of him for six-and-twenty years we could more than confirm all they have said, as we can only the more keenly lament his loss.

The funeral took place at Kirkby-on-the-Bain, near Horncastle, in Lincolnshire, where the late Mr. Tuxford's father and mother are buried.—*The Mark Lane Express*, October 31.

THE FARMER'S MAGAZINE.

DECEMBER, 1870.

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THE MARK LANE EXPRESS

AND

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20 lb. 100 " " " (cask and measure)	0	10	0
30 lb. 150 " " " included)	0	15	0
40 lb. 200 " " " "	1	0	0
50 lb. 250 " " " "	1	3	6
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