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THE

# GENESEE FARMER:

A MONTHLY JOURNAL DEVOTED TO

## AGRICULTURE & HORTICULTURE,

DOMESTIC AND RURAL ECONOMY.

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FRUITS, FLOWERS, SHRUBS, &c.

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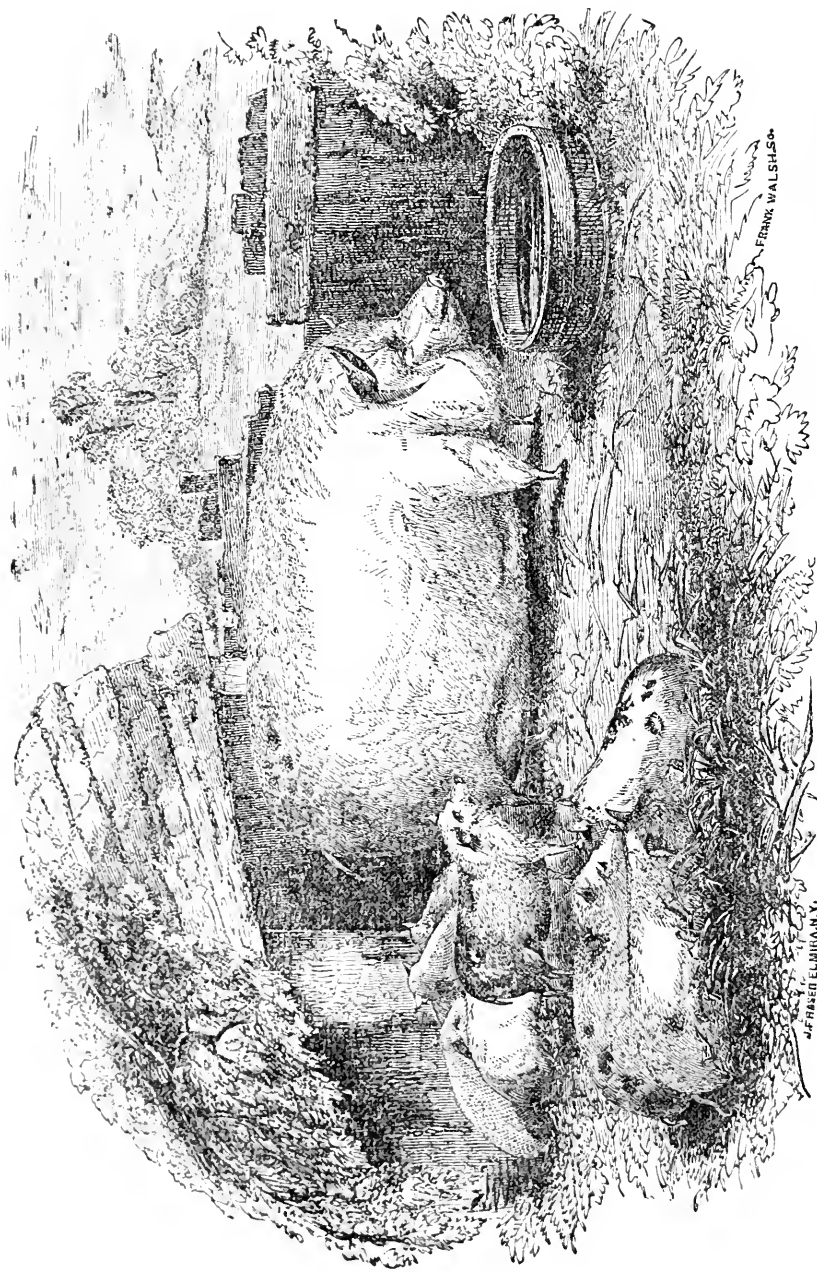
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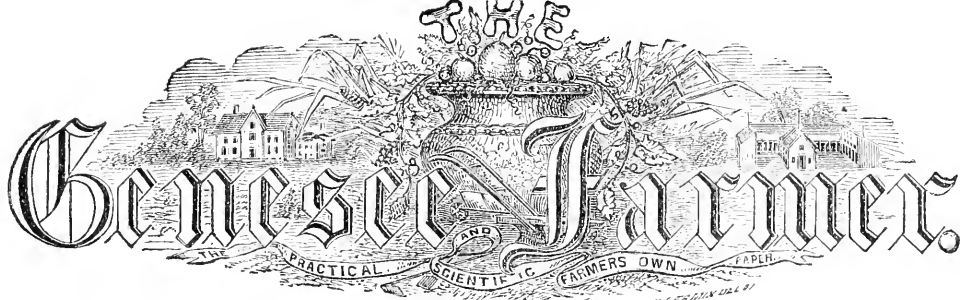
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**MANURES FOR POTATOES.**

IN the April number of the *Genesee Farmer* for 1858, we gave the results of some experiments, made by the proprietor of this journal, with several artificial fertilizers on potatoes. It was there shown that though half the ash of potatoes consists of potash, four hundred pounds of unleached wood ashes gave an increase of only five bushels per acre, while 150 lbs. of sulphate of ammonia gave an increase of 45 bushels per acre, and 150 lbs. of sulphate of ammonia and 300 lbs. of superphosphate of lime gave an increase of 84 bushels per acre.

We then remarked that these experiments indicate that potatoes require, in an eminent degree, ammonia and phosphates, and that therefore Peruvian guano, which contains about 18 per cent. of ammonia and 25 per cent. of phosphates, is one of the best artificial manures that can be used for potatoes, and instanced the following fact in confirmation:

“In the same field on which the above experiments were made, two acres were planted with potatoes, in 1852, without any manure, and two acres with 300 lbs. of Peruvian guano per acre, sown broadcast. The two acres without manure produced 238 bushels, and the two acres dressed with guano produced 410 bushels, or an increase of eighty-six bushels per acre.”

Since then, the results of some experiments made in Scotland have been published in the *Quarterly Journal of Agriculture*, which confirm this opinion.

There were forty-seven experiments in all, but our space prevents allusion to more than the principal ones.

Of any single manure, Peruvian guano gives the greatest increase; and also, as an auxiliary to farm manure, it affords the best result.

Sulphate of lime (plaster) was used in unusually large quantity. Eight hundred and ninety-six lbs., when used alone, gave an increase of 11½ bushels; and when used with farm manure, it caused a decrease of 9½ bushels, as compared with the plot

receiving the same quantity of farm manure alone! This is a result we can not account for. Muriate of potash, used with farm manure, also caused a decrease in the produce. In our own experiments, 100 lbs. of plaster, used alone, gave an increase of six bushels per acre over the unmanured plot.

As more convenient for comparison, we give the main results in tabular form:

Manures used and quantity per acre.	Produce in bushels per acre.	Increase in bushels per acre.
No manure.....	157	....
896 lbs. of sulphate of lime (plaster) .....	168½	11½
663 lbs. of superphosphate of lime .....	191	34
376 lbs. of Peruvian guano.....	275	118
252 lbs. of sulphate of ammonia.....	179	22
224 lbs. of nitrate of soda.....	193¾	36¾
15 loads of farm manure.....	159½	82½
15 loads of farm manure and 896 lbs. of sulphate of lime (plaster) } .....	180	23
15 loads of farm manure and } 376 lbs. of Peruvian guano } .....	300½	143½
15 loads of farm manure and } 663 lbs. of superphosphate of lime } .....	214½	57½
15 loads of farm manure and } 252 lbs. of sulphate of ammonia } .....	291	134

It is evident that, to raise large crops of potatoes, as of wheat, barley, oats, corn, etc., we require ammonia and phosphates. If these are present, most soils can furnish an abundance of all the other constituents of plants; and if they can not, there is no natural way of supplying ammonia and phosphates that will not at the same time supply an adequate quantity of every other element required. To get ammonia at a cheap rate, is the grand problem which American farmers have to solve. We know of no better way, at present, than to raise plenty of clover, peas, beans, turnips and other roots, and feed them to stock on the farm, using as much oil-cake and other rich, nitrogenous food, in addition, as they can afford—of course being careful to save all the manure.

### MANURES FOR GRASSES.

NEARLY all the experiments which have been made with artificial manures for grasses, indicate that, like wheat, barley, oats, etc., the grasses proper—such as timothy, rye-grass, etc.—require a large amount of ammonia. In the park at Rothamsted, which has been in grass for a great number of years, and the crop frequently made into hay and removed from the land, manures containing much ammonia were very beneficial on the grasses, while those furnishing potash, soda, and other inorganic substances, had the effect of causing clover and other leguminous plants to spring up and flourish. This effect was very marked, and the result fully sustains the deductions made from direct experiments on clover, wheat, barley, etc. We are warranted in concluding that clover and other leguminous plants require a larger amount of alkalis in the soil, than wheat and the grasses generally, while the latter require manures rich in ammonia.

Some experiments recently made in Scotland, by THOMAS FERGUSON, also favor this opinion. Land recently seeded with rye-grass and clover, was top-dressed with various fertilizers. Those furnishing a free supply of ammonia or nitric acid, increased the rye-grass to such an extent "that the clover plant was choked, and came up very thin in the aftermath." One hundred and twelve lbs. of sulphate of ammonia, costing \$4.50, gave an increase of 1,524 lbs. of hay per acre; 224 lbs. of Peruvian guano, costing \$6, an increase of 1,260 lbs.; 112 lbs. nitrate of soda, costing \$5, an increase of 1,540 lbs.; 280 lbs. of superphosphate of lime, costing \$5, an increase of 292 lbs.; while sulphate and muriate of potash gave an increase of only 30 lbs.

In another field, on a two-year old pasture, an application of five dollars' worth of guano "at least doubled the outlay in grass, as also the sulphate of ammonia and nitrate of soda, all of which thickened the grass plants, beside giving them a quick growth."

### IMPORTANCE OF COMFORT TO ANIMALS.

LET me touch a cord of compassion, my friend, as I point to that poor shivering flock of sheep exposed to the cold air this morning, as they have been since breakfast. Pray turn them into the barn, and give them something to pick over, at least, if not to eat, that they may drive away the thought and feeling of cold, which threatens to shake them to pieces. I address every man who leaves his sheep and cattle exposed to the weather when it is, as it is now, below freezing, and especially when the wind is strong enough to open the wool and stir the hair of the cows. It is sufficient to say it makes them uncomfortable. No animal in

this state for long and frequent periods was ever known to make the most of the food given it, or to improve in flesh and fat and muscle. It is enough for me to hear the cattle lowing in the barn, or see them walking about the yard uneasily, or to feed them irregularly, to satisfy myself that at the following milking the quantity will be less than usual, or that the oxen when working will be restless and disobedient, or weak and unwilling to haul their load; and I always look here for the cause of the evil. An interesting anecdote illustrating this fact, may be found in the *Farmer's Guide*, where a great diminution of milk was the result of irregular feeding of a lot of cows in possession of the author.

The piercing wind, and still, cutting cold, has a no less disastrous effect. The quantity of food consumed has been clearly proved to be much greater than otherwise, and the profit derived from it at the same time is found to be much less. If wandering about the yard causes sheep and cattle to eat more food to less advantage than when penned up, who will deny that any additional demand upon comfort, quiet, animal heat and fat, is a source of loss to the farmer? Yes, my friend, this little matter also demands your care. G. P. S.

Duffield, Mass., December, 1858.

### OIL-CAKE FOR COWS.

MR. ELLIAB WOOD, JR., of Concord, who keeps seventy cows, considers oil-cake one of the best articles of food for them, even at \$35 per ton, its present price. Of so much importance does he regard it, that he would sell corn at a dollar a bushel and purchase cake, to some extent, for cow-feed. He finds the cake of great utility in seasoning and imparting a relish to coarse fodder—as bog hay, straw, etc. The fodder being cut and thrown into a large trough, it is moistened, and the ground cake mixed through it. After standing a few hours, the odor of the cake is found to have penetrated the entire mass, and the cattle eat it with avidity. Mr. W. finds that no objectionable quality is imparted to the milk by feeding two quarts of the ground cake to each cow daily. He prefers, however, that the cake should be mixed either with shorts or shorts and corn meal, in about equal proportions. The milk is sold for Boston market.

From former experience in the use of oil-cake, we agree with Mr. Wood in his estimate of its value for milch cows. We have found that from a pound to two pounds a day, to a cow, in the winter season, made a very profitable increase of butter, the quality of which was not inferior to that produced from any other food. But if the cake was increased beyond this quantity, the quality of the butter was sometimes injured. Cake in moderate quantities is highly favorable to the health of cows. They show it by the smoothness of their coats and the suppleness of their limbs. It also greatly improves the quality of the manure. English farmers do not understand how it is that Americans can afford to export oil-cake. Neither do we.—*Boston Cultivator*.

TO PREVENT TURNIPS SPROUTING IN WARM CELLARS IN WINTER, cut off all the fibrous roots and a portion of the tap root. The tops should also be cut close. This will not prevent them from heating and decaying, if placed in large piles.—B



## THE POTATO DISEASE.

THE Royal Agricultural Society has awarded a purse to Dr. LANG, of Ipplepen, for a paper on the Potato, its cultivation, production and disease. The conclusions at which he arrives are :

"That the disease is of a fungoid nature, increased in virulency by atmospheric causes. That all manures are injurious, saving only lime and salt. That the earliest Potatoes in ripening should be exclusively grown. That earthing up repeatedly with fine earth is the only effectual preventive to the ravages of the disease."

"These opinions," says the *Gardener's Chronicle*, "are much the same as those which have been repeatedly expressed by ourselves, with the exception of recommending lime and salt as a manure, and trusting to frequent earthing up. But we must express our entire dissent to the author's statement that disease never originates in the lower portion of the stem where it adjoins the root. We can only say that during 13 years that we have studied the phenomena of this singular malady we never saw an instance to the contrary."

## Genesee Farmer Prize Essays.

## FARMING AS A VOCATION.

\* For the best essay calculated to give farmers an adequate conception of the nature and worth of their vocation."

The life of the farmer has ever been considered by *himself*, one of toil and drudgery, but with how much reason, it may be well to ask, to investigate, and to become satisfied. It is the lot of man in general to have an occupation. If not necessary for a living, it is made a means of obtaining wealth, fame, or power. A few, born to wealth or titles, pursue no calling but that of pleasure. Such lead miserable lives, and do little or no good in the world. It is appointed unto all men to *work*. It is necessary to health, strength, comfort, and happiness. But to work, it is not necessary to guide the plow or harrow, to wield the axe or scythe, to sow or reap. There are other kinds of work, equally laborious and fatiguing — other occupations more wearing to the system, and attended with less pleasure. In this country, there are more men engaged in farming than in any other occupation, and in the rural districts, they constitute a large majority of the inhabitants, and, as a consequence, see and know little of the drudgery of other occupations. In their visits to the mechanic, or manufacturer, they see him sheltered from the storms and cold, they notice that his skin is less tawny, his hands softer and whiter, and his clothes perhaps less soiled and torn; and it is but natural that they should think his labor less hard than theirs. They see the merchant behind his counter smiling to his customers, or at his desk counting his money, and they cannot think he

*works*; and they go away wishing that Providence had been as kind to them. They see the lawyer advocating the cause of his client, uttering with eloquence witty or grave sentences, bringing tears to the eyes, or laughter to the countenances, of judge, jury, and spectators; and they go away, repining that the gifts of Providence are so partially bestowed. They see not the mechanic at work by his lamp, while farmers are reading by their fire-sides; they see him not with his accounts, anxiously looking forward to the time when his payments become due, or his flour barrel empty, or his pork barrel out; they see not the anxious and care-worn countenance of the merchant, while alone in his office, just before his bank note becomes due, and no money to meet it; and they see not the lawyer in the still hours of the night, with aching head and wearied eyes, looking up authorities to sustain his cause on the eve of trial.

It is *they themselves — the farmers* — that have set the stamp of drudgery upon their occupation. No one else admits or believes it. The lawyer, the doctor, the merchant, and the mechanic, envy the farmer his farm and his happiness — his bread, butter, and cheese — his fruits, meats, and his grains, the product of his own labor, that he can eat with an appetite sharpened by muscular exercise, and knowing that they are pure and healthy. Ask the mechanic what he is striving for, and what is his aim. *For a home*, a piece of land that I can cultivate, and eat the fruits of my own raising; the merchant will tell you that he hopes to end his days upon a farm; and the lawyer and doctor will tell you the same. What if their faces are blanched while the farmer is tawny — their fingers delicate and supple, while the former are dingy and clumsy — their garments fine and clean, while his are soiled and coarse. Each is appropriate and equally respectable. A chimney-sweet in white linen, or a farmer at his plow in fine broadcloth, would be an object of ridicule, equally with the lawyer in rags. More men make themselves ridiculous by overdressing than the reverse. If the farmer has not delicacy, he has strength, and power of endurance — far more valuable. If he is not educated and refined, it is no fault of his *occupation*, did he himself not think so; for no one has more leisure for reading and study. If he mingles less with the world, and learns less of etiquette, he has opportunity for thought, and learns less of deception, intrigue, and chicanery, which make no one happy. Whose sons make the most enterprising and successful merchants, the most profound statesmen, the most eminent engineers, and the most learned lawyers and divines? *The Farmer's*. They go forth from the farm, with healthy blood in their veins, inherited from healthy parents, and consequently have healthy and vigorous minds. Who are looked up to as defenders of our homes in case of invasion? Whose names are in our jury boxes, and whose names are sought for (aye, a little too often *successfully*), on a bank note? Brother framers, let us not repine at our lot; let us not envy others while they envy us; let us honor our calling, and it will honor us.

"Honor and fame from no condition rise;"

"He that would win, must labor for the price"

## SOCIALITY AMONG FARMERS.

It is a great and obvious truth, that the cultivator of the soil has not the same conveniences, opportunities, and facilities of daily intercourse, communication, and comparison of knowledge and opinion, as the followers of the commercial and manufacturing interests. The followers of the latter naturally congregate together in cities, and have immediate means of frequent communication. Their sympathies, feelings, and opinions, circulate like electricity immediately through the whole body, to their advantage, encouragement, and success.

How is it with the cultivators of the soil? At home — separated — distributed among a thousand rural fields, each attentive to his own acres, they have only occasional opportunities of mingling and communicating with each other. If among commercial men, chambers of commerce are found necessary — if among trades, guilds are found beneficial — how much more necessary and advisable to have social institutions calculated to bring together the representatives of the great agricultural interests.

The duties of the farmer are varied, intricate, ever-changing — dealing in trial, experiment, and new endeavor — coping with nature in every mood, and witnessing results involving mysteries which no research has discovered, or philosophy explained the cause. His experience is beyond price to the whole family of man, and he is called upon by the highest, noblest, and most elevating of influences to be social — to communicate the year's experience, and receive an ample return from the memories of thousands.

The reasons calling upon the other members of society to be social are liliputian when pitted against those which should prompt the farmer to frequent interchange of thought, feeling and experience. The follower of no other calling is so liable to fall into narrow, dogmatical habits, keeping unchanged from year to year, until they mark his identity as unmistakably as his own physiognomy, and chain him a slave to routine and thought, sympathy, action, impulse, observation, and labor. Social intercourse would work a change in the farmer in this respect, softening his prejudices, increasing his knowledge, and improving his manners.

The obstacles in the way of the same degree of sociality being established among farmers, which is so easily and almost necessarily maintained among trades and other business men, are very considerable. But the advantages resulting would more than pay the expense. Town and county fairs, held no oftener than at present, are doing much in this respect, and will never come off debtors to those whose interests they profess to serve.

The subject under consideration is really of colossal magnitude in its influence upon farmers, and would result, if carried to the extent it should be, in unlimited advantages to the farmer himself, as well as his business. To be social is the imperative demand of his interest, his intelligence and his mutual duty to his fellows.

W. H. GARDNER.

Amboy, Ill., Nov., 1853.

## PLAN OF A SIDE HILL BARN FOR CATTLE, HORSES AND SHEEP.\*

THE accompanying plan is designed for a side-hill barn of convenient size for a hundred acre farm, 42 by 60 feet, the basement story to be built on both ends and one side, of good stone wall, ten feet high; the other partitions to be of wood, with a space of two feet left open above, behind the stable to secure good ventilation and pure air.

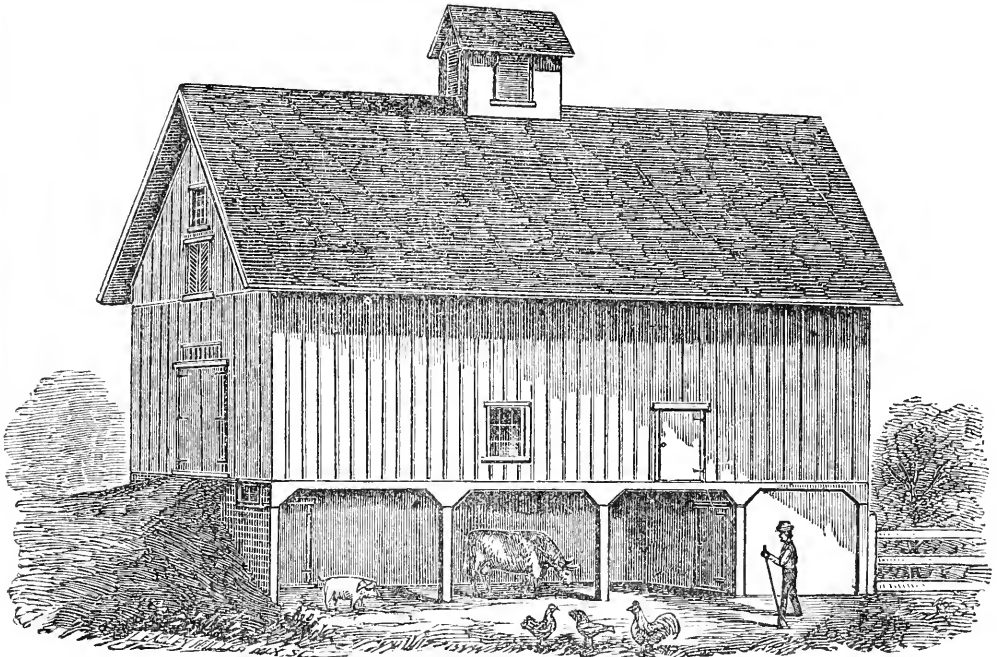
The barn is divided into equal spaces of fourteen feet between the posts one way, and fifteen feet the other way, the front or entrance to the basement to be on the south or shed side, fifteen feet off the east end to be partitioned for sheep and calves, (fig. 3.) with rack and troughs through the centre, the space (marked 8 in the annexed plan) for young calves, or ewes and lambs. The remaining forty-five feet to be left open fourteen feet deep in front, for storage of manure and space for cattle to run in, as it is better to turn them out after feeding in mild weather. In the centre, back from the open space, are enclosed room for six cows and a yoke of oxen. (Fig. 2.) The mangers are three feet wide, the floor level about five feet where the animals stand, with a drop of four or six inches deep, and two feet wide behind for the manure, and back of that a four foot walk, raised to the level of the main floor, for convenience in milking, &c.

On the west side of passage to feed-rooms is the horse stable, (1,) for three horses, with door-opening to passage, open space and feed room back. The feed rooms are 14 by 45 feet, ample for root bins, boxes for meal or cut fodder, with space for straw and root cutter. Water from the cistern, (C,) can be had through the wall by pipe or syphon in the feed room for horses, thus making it very convenient for feeding. It would be better, perhaps, to cut the fodder above on stormy days, and store it in the bins below through the shutes in the floor, to be ready for use when wanted.

Stairs lead from the feed room to the main floor, which is designed to be all planked over in one unbroken floor, doing away with the unnecessary divisions between the floor and bays, and being much more convenient for other purposes when empty. The barn can be entered and filled either from the ends by driving through, or by a door or doors on the north side, the scaffolding being arranged in such a manner as to be easily changed from one plan to the other by arranging the girts in a proper manner, about twelve feet from the floor, opposite the door.

If the common traveling threshing machines are used, and the straw is wanted in the barn-yard, the granary, (G) may be put in the corner on the other side of the stairs, and two double doors put in the north side for greater ease in filling; but the better way is to use the railway powers for threshing, and leave a space through the middle of the barn from end to end, and also a space of fifteen feet across one end for straw, so that in threshing, an elevator may be attached to any machine for carrying and dropping the straw on a movable inclined plane, to direct the straw to either side and prevent the workmen from standing in the dust.

\*The Committee award a prize to both of the accompanying plans and descriptions of a Side Hill Barn.

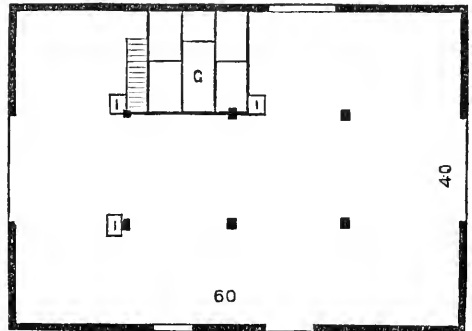


SIDE-HILL BARN, FOR CATTLE, HORSES, AND SHEEP.

Should this plan be adopted, it would be well to have a door above the main doors of the barn to let the dust escape, as shown in elevation.

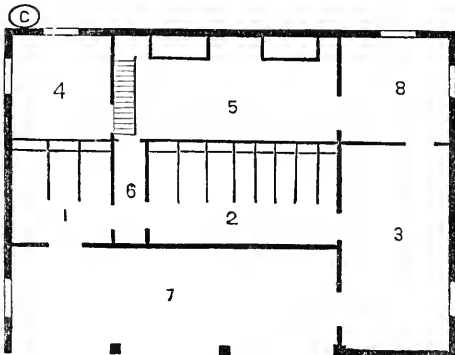
This barn is capable of holding all the grain and hay usually grown on a hundred acre farm, the posts being eighteen feet above the walls. Girts or beams should be put in two feet below the plates, to prevent the building from spreading, and girts and joists at eleven or twelve feet above the floors, opposite doors, where necessary to drive in loads only. In all cases, scaffolds should be made as low as convenience will admit, and the frame should be generally strong and the roof well supported. There should be eave-troughs to conduct the water to the cisterns, windows over the main doors, and the ventilator on the top in the centre, as shown in the plan.

inch strips. The cost would vary according to location and price of lumber and finish, from \$500 to \$1,200.



MAIN FLOOR.

DESCRIPTION OF PLAN. — *Basement*—1, horse stable; 2, cow stable; 3, room for sheep; 4, feeding-room for horses; 5, feeding-room for cows and sheep; 6, passage; 7, open shed; 8, calves pen; c, cistern. *Main Floor*—I, I, I, traps for hay and straw; g, granary. \*\*



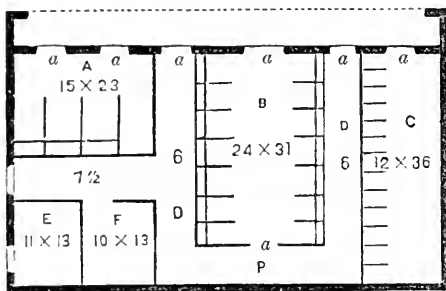
BASEMENT.

The sides may be covered with matched pine and painted, or rough boards battened with three

The site for a barn on a hillside should not ascend more than one foot in ten. The ascending grade should be northwest, or in the direction of the prevailing winds, so the barn will protect the yard from winds in the winter, and shelter the cattle from cold. The barn should be built of stone, and for one hundred acres of land, should be 45 by 75 feet. The cellar or stable should be 8 feet high to joists, the hay and grain mows 19 feet to plates,

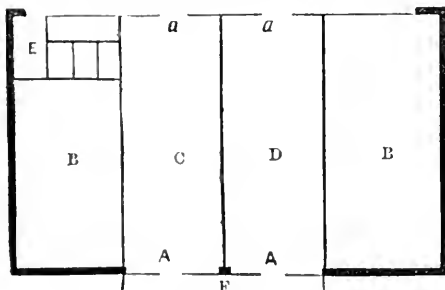
and threshing floors, (I would recommend two,) 16 feet wide, as long as the barn is wide, and 12½ feet high to scaffold overhead, from which will be 6½ feet to plates. The cellar should be dug so the front or stable door-sills are rather higher than the natural ground, and dug out, giving the stables six inches descent from back to front. Make the end walls 45 feet long, the front jamb 3 feet wide, the walls 2 feet thick as high as basement, then 20 inches to plates; from thence to peak of roof 18 inches. Set the front wall back 5 feet so as to project the upper barn over the stable doors, and afford a dry walk in wet weather. There should be two horse stables, three cow stables, or two with one of them double, with the necessary entries and passages to pass to all of them without going out of doors.

As represented in the following ground plan, the size of stables and entries are given. *a, a, a,* &c., represents the stable and entry doors.



BASEMENT.

whole are believed to be the most convenient arrangement of stables and feed-house in a barn, that can be adopted. The second story contains two floors and two mows to store hay and grain. The joist should project over the front wall and doors even with the jambs. The part between the jambs should be framed on a sill, laid on the ends of the joists. We drive into the west or right hand floor, to fill the west end mow. When that is full we drive into the threshing floor, and fill the other mow, and the grain floor up to the point of the roof, and over the threshing floor, which altogether holds a large quantity of hay and grain.



MAIN FLOOR.

From the hay mow next the threshing floor may be cut off 10 or 12 feet for granaries—very convenient to floor and to load from a front door on a wagon. In this should be a window with a few lights. There should also be a window over each

overshot door, to light the threshing floor. With us the hay is unloaded by horse-power on hay drag, and carried up to the peak of the roof before it is discharged.

The whole should be permanently built and roofed with slate. Of such barns, we have many in Chester and Lancaster counties, Pa., smaller or larger, in proportion to the size of the farm. A barn as described, cost, the past season, \$1,600.

The stables should be ventilated by openings over the stable and entry doors. The doors may be double or in two parts, and in summer have the upper door open. The doors may be left open by having bars across the door-ways.

This barn can be built on level ground as well as a hill-side, only the bridge-way will require much more filling up to drive into the floor.

To get the hay into the feeding-entries out of the several mows, there should be funnels from the mows to the entries, at such place as convenient. The stable floors should be earth, the floor of feed-house mortar laid on fine stones; all to prevent a rat harbour in or about the barn. The feed-house is very convenient to the horse and cow or cattle stable, out of which a stair leads up to the threshing floor, bringing all the principal parts of the barn in close proximity. The two upper barn floors should be two inch plank; in the threshing floor they should be jointed, grooved and tongued; in the others, they may lay loose, and not jointed very close; the two mows floored with inch boards loose. The upper barn may be built a frame as well as stone; but frame, and particularly the sills, will decay with the roof of shingles. A stone barn will outlast six or eight shingle roofs; hence the necessity of covering with slate. The barn will last half-a-dozen generations, always good.

DESCRIPTION OF PLAN.—*Basement*—A, horse-stable; B, double cow-stable; C, cattle or sheep pen; D, entry; E, horse-stable; F, feed-house; P, passage. *Main Floor*—A, A, large barn doors; a, a, front overshot doors; B, B, hay mows; C, threshing-floor; D, grain-mow or second floor; E, granaries; F, bridgeway.

B. F. BARTOLET.

#### PRESERVING ROOTS FOR WINTER USE.\*

"On the best and most economical plan for preserving roots for winter use, reference being had, first, to keeping and feeding a large quantity, say from one to several thousand bushels; second, to its being a permanent system; third, to the easy access during cold weather, and the temperature of the roots so as not to be so cold as to injure stock."

THERE is probably no more economical method of keeping roots, and no more convenient place for keeping them, than in what every successful herdsman needs, viz., a good warm basement to his barn, enclosed by a stone wall laid in lime mortar, and tightly pointed so as to exclude all air unless for ventilating purposes. This should be large enough not only to stable all his stock, but in one end should be a room large enough to hold his winter supply of roots. This should be partitioned off from the stabling, and lathed and plastered to make

\* The committee think that none of the twelve essays received on this subject quite come up to Mr. TAYLOR'S requirement. The three following are all excellent, and they award a prize of a dollar book to each of them.

it warm. Around this should be erected a tier of shelves for storing the roots. These may be made of scantling, 3 by 3 inches, the length as high as you wish your shelves. Into these may be framed cross-pieces, 2 inches square, 3 feet long, and 2 feet apart. These should be set up at a convenient distance apart to support the shelves, which are to be laid upon the cross-pieces. There should be a door from the stable to the root-room, and a window or windows to let in light, which should open for ventilation in mild weather.

The object of shelves is to prevent a large mass of roots from coming in contact, obviating the danger of fermentation and decay. Roots, if left out as long as will be safe from frost, and properly dried in the sun, may at once be put upon the shelves with safety, if proper attention is paid to ventilation during any warm weather that may follow. For want of shelf room, they may be thrown upon the ground between the shelves to the depth of two or more feet, for early using. For late spring use, and want of other storage, roots may be put into pits through the winter.

No one will think of feeding even a limited quantity of roots without a root cutter, which will cost but a few dollars.

Roots, to keep best, should be kept as near as possible to the freezing point without quite reaching it; and in fact a slight "nip of frost" does not seem to materially injure carrots. They would be best suited to feed stock at a temperature of 60°, though they do not injure stock at a much lower temperature. This could only be obtained, during the winter, by artificial heat. For this purpose, a stove could be put in the root-room to raise the temperature a little, and to prevent freezing in extreme cold weather.

o. s. c.

*Trenton Falls, N. Y., Dec., 1858.*

In preserving and storing roots for winter use, I prefer a cellar under the barn, or building intended for stabling cattle, of the size of the building, dug, if the ground will admit, six or seven feet deep, and built up of stone or hard burnt brick. The inner part of this basement I would use for a root-cellar, and the outer part to tie up the cattle in. By this plan you have the cattle and roots in one building on the same floor. You can have divisions in the root cellar to store all the different varieties of roots, so that you can feed any kind you wish. You can feed them to the cattle with comfort and without going out into the cold. Roots can be put in easily by slides from the outside of the building, or by a trap door from above.

As many may wish to raise and preserve roots whose buildings are already put up, a building may be put up above ground expressly for a root-house, placing it where it will be most convenient to where the roots are to be fed. Wood may be used for the walls of a root-house; yet, if wished to be durable, they ought to be of stone or brick. After the walls have been raised, rafters about six inches deep should be put on and closely sheeted with inch boards on the *under* side; then, before or when the outside sheeting is put on, the vacant space between the outside and inside sheeting ought to be carefully filled with dry sawdust or spent tan-bark, and the whole shingled over, thus forming a dry, frost-proof roof. If the building is

much exposed to cold winds, the walls ought to be banked up outside with earth. The door will be most convenient if placed in the end of the house, and there should be double doors, with a space of three or four feet between them, as that will more certainly exclude the frost and render easy access; or, the door may open into the stalls where the roots are to be fed.

If the root-house or cellar be small, the roots may be put in a pile without any danger; but if the quantity is large, care must be taken to have them thoroughly ventilated to prevent heating, sprouting, and decay. If the root-house is large, a passage may be made through the middle of the building, and the roots filled in on each side and across one end. This plan takes up much space. A simple method of ventilation is by a square tube, six to nine inches in diameter, perforated with holes placed so as to be in the center of the pile of roots, with a branch tube leading to the top of the roof. The aperture in the roof should be closed as soon as the weather is cold. The perforated horizontal air-box will be most convenient in sections which can be removed as the roots are taken out. Care must be taken to have the roots kept dry, as wet and damp soon cause rapid decay.

Roots can be safely preserved in pits, if well covered with straw and about a foot of earth. If not wanted till spring, they are as well in pits as in a house, but are inconvenient to get at in frosty weather.

W. E.

*Cobourg, C. W., November, 1858.*

THROUGH the long, severe winters, it is evident that stock must do better if well provided with plenty of roots. To secure these, requires some skill in constructing a building so as to have free access to them through the winter. A barn on a side-hill, if possible, is best, having all the cattle underneath, with a root-house behind, and doors opening from the cattle into the house. A barn 40 by 60 feet will hold four rows of cattle containing fifteen head in a row, seven double stalls and one single one, allowing four feet for each animal. The two ends may be fitted up for cattle, and the middle apartment for sheep, with a root-house behind, 10 by 30 feet, or larger if desirable. This makes a very convenient and warm place for cattle and sheep, and a root-house holding 3,000 bushels. It may be enlarged to the length of the barn if necessary. The stalls should be on the sides of the barn, fifteen feet wide, heading toward the center. In front of the stalls may be passageways four feet wide, leading from the root-cellar, around the center space, from which the feed can be placed in the troughs on either side. Hay, straw, &c., can be put down through trap-doors from the threshing-floor above.

A very good plan, where only two or three feet of side-hill can be obtained, is to construct the barn with a substantial eight foot wall, with a stable for cattle on the sides, and a root-house in the center. In this case the root-house will be above the ground and exposed to frost, unless made with double walls and filled in with sawdust, or spent tan bark. Any space not occupied with stalls, can be profitably used with movable pens for calves or sheep.

Neither of these plans are adapted for horses,

which, I think, are better in a wood building entirely above ground.

I have had much experience in pitting roots, and always find much waste, either with frost or by heating so as to rot. If any one raises and feeds many roots, I think it will pay them to build root-houses, and have them large enough so they can turn the roots some winter day, if they find them getting too warm. Airing makes them keep better. I have 8,000 bushels of Swedes this year all dug and housed, and my root-houses all open into sheep and cattle sheds, so we are not exposed to cold, and have no drifts to cut through to feed the stock, and my roots are always in good condition to feed.

A stone root-house can be built along side of any cattle shed, with upper floor covered with tan bark, inside lined and filled in with tan bark, with an entrance door into cattle and sheep shed, and roofed and shingled, making a durable structure, and one that will not wear out, always ready every fall when roots are fit for gathering, which should always be got in on a dry state to keep well.

*Genesee, C. W., Dec. 1858.*

J. KIRBY.

REMARKS.—The foregoing essays will be read with interest, and it is to be hoped the importance of the subject will induce others to give their brother farmers the result of their experience in growing, storing, and feeding roots. More information is needed as to the different kinds of roots proper to be grown, their value for food, and the best manner of feeding them.

EDS.

#### HOW SHOULD WE IMPROVE OUR HIGHWAYS.

This important subject has not been sufficiently discussed heretofore. All acknowledge that our highways should be improved, and in the right way.

*Which is the right way?* Here is a question which will call out many different opinions. In considering the subject many things must be considered. First, the condition of the soil; second, the hill and the valley; and third, how should a road be made on level ground. Turnpiking has gone into disuse in many localities, and yet it is, in many places, deemed necessary to throw up the highways in this form. In swamps and such localities, turnpiking is thought to be the more judicious mode of making good roads, and keeping them passably dry. This can only be done by a thorough system of ditches and draining.

I propose to give my plan of making a road in soil where it is apt to cut up, and become rutty by reason of wet, and one which trial has shown to be the most durable and cheaply made road—all things considered—now in use. Open a trench in the centre of the highway from nine to twelve feet in width and one foot in depth, with plow and scraper. Stone being plenty in most every country, fill this track with small field stone, and pound down the surface with hammers smooth and regular. Having done this, go to a gravel bed, (most every neighborhood having one,) and draw on to the stone bed thus prepared from five to eight inches of gravel. Level down, and make the track on the whole a little rolling, that the water may

run off. The dirt that was plowed and scraped out of the track, can now be hauled up on each side, and rounded off, to correspond with the gravel, scooping out the gutter to form good drains on each side. This kind of a road—and we have thoroughly tested it here—will last for years. Its cheapness equals its durability. Its smoothness at most all seasons of the year—in wet or dry weather—is unequalled by any other kind of road in use. In clay ground, it is better, far better, than plank; and when once made, you need not trouble yourself about repairing it once in a decade. If the gravel wears out, as it may from constant and long use, replace it in quantities sufficient to keep the road smooth.

On gravelly soil, not liable to cut up, we use gravel from a clean bed, and draw on a sufficient amount to make a good round track. In this kind of soil stone need not necessarily be used. In sand beds the stones may be used for a foundation, and then covered with gravel, as above described.

Now let us look a little to our hills, &c. We have a good deal of rain in most all countries. Our hills, therefore, are apt to wash in consequence. The only sure way of managing them on a permanent plan, is to put in stone as I have already described, and cover with gravel, not forgetting side ditches; in addition to which water breaks may be made every eight or ten rods. These need not be large, and everybody knows they will turn off the water in an effectual manner, and thus preserve the road. Simply turnpiking a road on a hill, does not seem to amount to much, as natural soil will wash away about as soon as it is thrown up.

There is a radical defect in our system of road making, and it wants improving about as much as anything in the whole range of rural economy.

A road made after the above plan will not cost much beyond \$2.75 or \$3.00 per rod; and every district, therefore, can build many rods annually.

This plan is growing more in public favor, year by year—at least with us; and as time rolls on, I believe people will begin to appreciate the value of stone foundations in our roads, and will build a less number of rods, and make those few rods well, so that time and use will not prove their ruin. T.

#### RAIL vs BOARD FENCES.

Rail fences occupy, on an average, eighteen feet of land, board fences only six, in plowed land. Rail fences are not so objectionable in meadows and pastures; still there is half to two thirds difference in favor of board, and full two thirds in saving of material. Timber can be made into board fences that cannot be used in rail fences. Board fences withstand winds which rail hardly can, even staked and capped. Some may object that frost pulls up fence posts, and they cannot be put up as easily as to lay up rails.

I will give a description of my board fence, manner of building, &c. I cut logs for boards of chesnut, black or white oak, in fall or winter. For each rod of fence it requires one board each ten, eight, seven, six and five inches in width; also one five inch board extra for battens on every four posts or two rods of fence. Fence posts made of good white oak, sawed 5 by 6 at the bottom, and 2 by 5 at the top, leaving them 5 by 5 where they

come to the top of the ground. For every three rods of fence I use one 4 by 4 scantling, twelve feet long, sawing the same in six pieces, two feet each, which I use as follows: Halve each post at the bottom 4 inches up, and make a dove-tail. Lay it on the two feet piece, in the middle, and mark the dove tail, taking half of that, then drive it into the post, forming a sort of foot. One hand will bottom fifty posts a day, and it can be done in the barn in the winter and on wet days. I find that the holes can be dug two feet long and two feet deep, as easily and as quickly as if only eight inches square. Such a fence here costs about 87½ cents per rod, and will last fourteen to twenty years, if the posts are well seasoned previous to setting, and a coat of coal tar put on six inches up, and down at the surface of the ground. This will not pull up by frost, nor lift with wind. Mine, seven years old, is firm as can be. Seasoned posts will last double the time of green ones. Coal tar can be got at gas works at \$1,00 per barrel, and should be put on hot. A farmer that can make a hay rack with a good saw, square, chisel, and hammer, can build such a fence. I use the five inch boards for caps and battens. The fence is four boards high, and four feet four inches high. I cut logs for posts thirteen feet long, and saw in two at the mill; fence boards, sixteen feet, six inches, and one inch thick. Brash white oak is the best.

DAYTON SIGLER.

**CONSTRUCTION OF STONE WALLS.**

To construct a good stone wall is by no means a difficult task, and yet a large share of those we see are by no means what they should be, but tumble-down rickety affairs, only an apology for a fence.

To erect a good stone fence it is necessary except on ground not affected by frost, to dig a trench twelve to eighteen inches deep, and as wide as the base of the wall is desired to be. For a half wall, two feet; and for a four and a half or five foot wall, two and a half feet wide. This trench should be filled with small stones pounded down, and made level with the ground. The frost will not affect such a foundation injuriously. Where the foundation of large stone is laid on the top of the ground, or near the surface, thawing affects it badly by occurring on one side before it does the other, especially in walks running east and west, causing them to lean to the sun, and soon fall down in that direction.

On the foundation of small stones, commence with the largest, putting them lengthwise across the wall, so as to bind it well and firmly together. If stones are not long enough to reach through the wall pretty often, use those that will lap on each other and form binders, as in this binding will depend, in a great measure, the strength of the wall. In making wall where the stones are all small, use is made of small slats of cedar, chesnut, or oak, for binding the wall, and experience has proved them to answer a good purpose. The wall should have an equal batter, or draw in with an equal slope on each side, so as to be not more than ten or twelve inches wide on the top. A full wall should be about five feet high, and where practicable, have a course of large stone firmly placed on the top, large enough to cover the width of the wall. Many walls are built about three and a

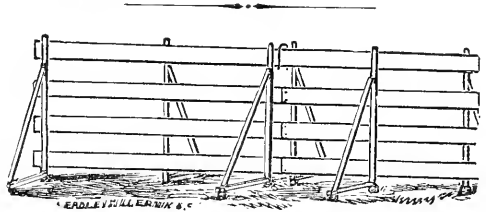
half feet high, with a good black ash, or other straight pole, laid on the top, over which, at proper distances, stakes are firmly set in the ground, crossing at the top, into which rails are placed, making a fence much preferred for some purposes. Sheep and cattle never get in the habit of running over the wall with a top rail, and are often troublesome where the wall is whole, unless quite high; and sheep are often getting over the lightest stone fences.

As a finishing stroke to a wall, bank it up with the earth taken from the trench, and plow a furrow on each side, where practicable, placing the earth against the wall, and cleaning out the furrows to serve as ditches to carry off the surplus water.

Stone fences constructed in this manner may reasonably be expected to remain permanent for years.

M. T.

Washington, Co., N. Y. Dec. 1853.



**A PORTABLE FENCE, NOT PATENTED.**

A SUPERIOR, cheap, portable fence, may be built in the following manner: From 3 by 3 scantling

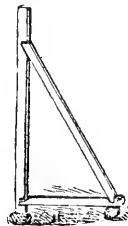


FIG. 1.

make a sill and upright in the form of a carpenter's square, (fig. 1,) by halving them together at the corner and nailing with two nails. The upright may be four feet or more long—as high as you desire the fence; the sill, or bottom part, about half that length. The two may be rendered very strong by a brace of 2 by 3 scantling, any desired length, either halved on, toed in and nailed, or by mortising, as you prefer. This forms the post. Set these up and nail on boards such distance apart as you desire, having three post to each length—two on one side, within six inches of the end; and one on the opposite side, in the center of the panel. Of these, as many can be made as you like, in the shop in cold and stormy weather. When you are ready to build a fence, the panels may be taken to the desired place, and put up, reversing every other panel, so as to have an equal number of posts on each side of the fence. The sills may be set on stone at each end, so as to keep them from the ground. Lap the ends of the panels about six inches, and put a wooden pin through both top and bottom boards, which will hold them firmly together, though it is an additional safeguard to drop over the top of the laps a clamp made of light band iron, in the form of a staple (fig. 2). This makes a very firm, durable fence, and may be easily moved by taking off the clamps and driving out the pins, with which it can again be put up when desired.



FIG. 2.

Liverence Co., Pa., Dec. 1853.

WM. RENO.



## FATTENING SHEEP IN WINTER.

In fattening sheep in winter, the first thing to be provided is a *dry* yard with an open shed. Nothing is so injurious to sheep as wet quarters. When left to themselves, they always select the highest and driest places in the field to lie upon. Racks and feeding troughs must also be furnished; and what is of equal importance, they must be filled with proper food. No fodder fits sheep like clover hay. If they could have some roots, so much the better; but sheep *can* be fattened, and rapidly and profitably too, without roots. A sheep weighing 100 lbs. will eat about three pounds of clover hay, or its equivalent, per day. It is well to let them have access to straw or corn stalks at all times, giving them hay night and morning.

One object in fattening sheep in winter, is to increase the quantity and quality of the manure. English farmers, who feed large quantities of oilcake to sheep, consider it a profitable business when the increased value of the sheep pays for the oilcake consumed. They consider the value of the manure equivalent to the turnips and other food, except the purchased oilcake, which the sheep eat. Taking the value of the manure into consideration, no food is so good for sheep—none will yield a greater profit—than oilcake. Half a pound each sheep per day is a good average allowance, giving less at first and gradually increasing the quantity. If large mutton sheep, they may be allowed a larger quantity. Oats, peas, and beans, are also excellent for sheep, and so is Indian meal; but the manure made from the latter is not so valuable as from oilcake, peas, or beans. Clover, containing much more nitrogen than timothy or other grasses, the manure from clover hay is much the most valuable.

Sheep are timid creatures, and should never be disturbed by the presence of dogs, or in any other way. By eating snow, they manage to *live* without water, but they will not thrive or fatten well without a regular supply. A little salt should be given occasionally, but not in too large quantities. When they have oilcake and clover hay, little salt is required, as a considerable quantity is provided in these foods.

The coarse-wooled sheep, when well bred, will undoubtedly furnish more mutton for the food consumed than the fine-wooled sheep—and, other things being equal, would be the most profitable sheep for fattening in winter. But as the common sheep of the country can be purchased much cheaper in the fall than well bred mutton sheep, greater profit is often realized from them than from the English breeds. Mutton is much higher in the spring than in the fall, and the profits of fattening sheep in Winter depend as much on this increased value of mutton as in the increased weight of the sheep. It is doubtful whether we could afford to fatten sheep in winter, if we had to pay six cents a pound for the sheep in the fall and sell them for six cents a pound in the spring, depending on the increase of mutton and wool to pay for the food and trouble; but if we can buy at three cents and sell for eight or nine, the profits are very considerable. I give these figures, not as actual representatives of what can be done, but merely to illustrate my meaning. I got this idea from the *Gen-*

*ese Farmer* three years ago, and have since then purchased common sheep in the fall, at from \$1.25 to \$1.50 per head, and sold them in the spring at from \$4 to \$6, and have found the business a pleasant and profitable one.

G. S. T.  
*Esire Co., N. Y., Dec., 1858.*

## MANAGEMENT OF FINE WOOL SHEEP.

FINE wool is an important staple of the United States, and it is well to examine the practice of the best growers, to see the mode of raising wool and breeding the sheep, so as to get the greatest weight of fleece from the food consumed, and the average cost of production. Nearly all our agricultural knowledge is derived, not from theory, but from the experience or experiments of judicious farmers and breeders; and for this reason, I say we must examine the practice of wool growers, in order to get at the best management of fine-wool sheep.

First, as to the breed. And here is some difficulty in deciding. Whether we shall get pure Spanish, or French, Silesian, or Saxony Merino sheep, is a hard question. So much depends on the breeders tact and facilities for selling off his surplus stock, that a breed good for one place would not be for another. In some sections, French Merinos could be profitably bred for sale and for wool; and in another, nothing but Spanish could be disposed of. The French Merinos have the heaviest fleeces; the Spanish have shorter legs and more barrel-shaped bodies; and the Saxony and Silesian, the finest wool. Either breed can be made profitable for the grower; and perhaps a small admixture of the French blood with the Spanish, would be as profitable as any breed, wool alone being taken into consideration.

It is requisite that the animal be covered all over with wool, and that the fleece be long and close, in order to get weight of fleece. It is also requisite that the animal be round, or barrel-shaped, and the legs short, as the qualities ensure ease of keeping—the shorter legged animal, *ceteris paribus*, eating the less. If the sheep do not possess these qualifications, then the breeder must give his entire attention to this subject—must procure the best rams for getting stock possessed of these qualities, and persevere, as did BAKEWELL, until he can not find better sheep than his own to breed from.

The subject of the care of sheep is the next to be considered; and this will do as well for mutton, or coarse-wooled sheep, as for fine-wooled sheep.—They should be kept in small flocks, in small pastures, and changed often from one pasture to another—should have access to pure water at all times, summer and winter—should be salted twice a week during the summer; but if the hay is salted in the mow, they do not require salting as frequently in the winter. Put the rams with the ewes in November, if the lambs are wanted in April—the earlier the better, as the lambs attain a larger size before the next winter. Feed the sheep on good hay, *in racks, under cover*; for by feeding under cover, in good tight sheds, *one-third* of the hay is saved—an important item in the cost of raising wool. Giving the breeding ewes clover hay, it makes them give as much milk as grass will. Give all the sheep, during the winter, about half a gill of corn (or its value in other grain) per day,

each. They winter better and their wool weighs more.

The lambs' tails should be cut off close to the body, and the male lambs castrated, by the time they are four weeks old. They bleed less and heal sooner than if left to a later age. They should have *small yards* in the winter, and should not be turned out to grass until the pastures have a good start. No more sheep should be kept than can be kept *well*. There is certain loss in trying to keep more than can be *well kept*.

The washing should be done well in running water, and the sheep should be shorn in about two weeks after washing. Washing and shearing both must be done in warm weather; it is cruelty to do otherwise. Get good twine, and do the fleece up compactly and neatly, and the crop will sell well, and pay a better profit for the labor than grain-raising or raising beef for New York market.

It costs per head, to keep fine-wooled sheep, about \$1.50 per annum, washing and shearing included, provided hay is worth \$8 per ton and corn \$0.75 per bushel, salt \$2 per barrel. A good flock will average about 5 lbs. of wool per head, and there would be from one-third to one-fourth of the flock that would raise lambs. One hundred sheep would yield 500 lbs. wool and 30 lambs, which, at the present prices, (37½ cents for Merino wool,) would be \$187.50 for the wool and \$60 for the lambs at \$2 per head; amounting to \$247.50. The total cost of keeping at \$1.50 per head would be \$150, leaving a net balance of \$97.50, or nearly \$1 per head. These figures are correct for a *good* flock of sheep in Western New York at the present time.

I have thus given the best manner of managing fine-wooled sheep *as derived from experience*, and have shown the probable profits to be expected from a *well kept* flock of *good* fine-wooled sheep at the present time.

D. A. A. NICHOLS.

#### MANAGEMENT OF COARSE-WOOL OR MUTTON SHEEP.

Food and shelter are very essential in the management of any kind of sheep, and the sheep that are well provided with both, are very sure to do well, and without them they must certainly run down and become worthless. In fact, I have obtained more clear profit from sheep than any other stock on the premises. I have always found that the great success in raising lambs depended on the time I turned in my buck. I found from experience, that I had always been in too much of a hurry—had my lambs too soon. From the 20th of November to the 1st of December, is the best time to turn in. Then your lambs will come when there is plenty of grass; and then you will have plenty of milk for the young lambs, and you will find them large, strong, and fat, and they will grow rapid enough.

Lambs that are docked and castrated the first week of their existence, will do the best; for if left until one or two months old, the use of the knife will stop the growth, and sometimes cause death in a few days. Young lambs seldom mind the knife more than one day.

To keep the ewes strong and healthy, they should be separated from the rest of the flock, and fed some grain—about half a pint each per day of corn and oats in equal parts, with a few pine boughs, or

a little tar laid in the feeding trough will answer the same purpose. Begin to feed grain about the 15th of February, and keep it up until there is a full bite of grass. Then your ewes will go through strong and hearty.

To mark sheep well, you must cut out the initials of your name in the end of a block of wood, dip these letters into some red or black paint, and apply it on one side the rump of the ewes, and on the shoulders of the male sheep or weathers; and if you have dry ewes and fat weathers, which you intend to put off, you may apply the marker on the opposite side. Then you can tell at a distance those you want to pick out of the flock.

To keep off dogs, put on one good plated bell for every twenty sheep, and you will escape the depredations of the canine tribe; for let an old dog start up a good loud bell, and he will drop his tail and leave forthwith, for he wants to go it on the sly. But sometimes a young fool of a dog will chase after a bell, and bark too.

A. L. SMITH.

Tioga Co., N. Y., Nov., 1858.

#### FINE VS. COARSE-WOOLED SHEEP.

“Which is the most profitable breed of sheep, the fine-wool or the coarse-wool mutton breeds?”

TAKEN literally, this query divides sheep into two classes—Merinoes and other sheep—and I have no hesitation in saying that the coarse-wooled sheep are the most profitable. If, however, the first half of the sentence be taken as a text, the question becomes much more difficult to answer in a country where the soil and climate are so various. No particular breed will suit all localities; and the kind that is the most profitable in one place, will prove the reverse in another. Where the climate is mild, the range extensive, and mutton in little demand, of course the Merino must be the most profitable. Where the soil is rich, the pasture luxuriant, and proper shelter and winter food are available, the Leicester breed and its grades will be found the most profitable. Where the soil is poor and hilly, the South-down breed and its grades will be the most profitable; and more particularly in localities where the quality of mutton is appreciated. In general, however, cross-bred sheep are the most profitable; and there is no better cross than that between the Leicester and the Cheviot—combining a large quantity of good mutton with a heavy fleece of wool, besides being much harder and better breeders than pure Leicesters. But as far as my experience goes, the most profitable sheep are of no breed. Buy poor and inferior ewes, (of the native breed, if possible,) cross them with the best Leicester or South-down rams, according to their roughness and other qualities, and they will pay from 50 to 100 per cent. per annum or more. This is simply taking advantage of the established maxim in breeding, that the first cross is the best. You thus obtain an increase in mutton of from 20 to 30 lbs., and an increase in wool of from 50 to 100 per cent., besides a great improvement in the quality of both.

To sum up,—in order to keep the most profitable kind of sheep, every man must decide for himself, by comparing the qualities of the different breeds with the nature of the soil and climate, nearness to market, demand for wool, etc.

J. C.

Orillia, C. W., Nov., 1858.

### ON THE MOST ECONOMICAL WAY OF WINTERING HORSES.

In response to your call on this subject, I offer the following suggestions as the continuation of experience.

The quantity of food which any animal consumes and seems to require, is no doubt, to a great extent, the result of habit. This no one will question with reference to man; and, if true in one part of the animal economy, may it not be so throughout the whole? It is my belief that a horse or an ox, fed irregularly and with promiscuous quantities—all he will dispose of,—eats more than nature requires and more than she can properly appropriate. The overplus is rejected and thrown off by a prostrating and debilitating effort of the system, and is worse than wasted—is actually pernicious.—Enough, is the point to be sought in the supply of food to any and all animals. Regularity, also, as to time, quality, and condition of that food. Frequent changes of feed are to be avoided.

Cut feed, so called, I regard as best adapted to horse-keeping, both as regards economy and the wants of the animal. Of course, the amount and quality must be modified by circumstances. The age, size, condition, former keeping, and present use of the animal, must be considered, in determining how much or how little is required to keep the beast in good condition. If a horse is to labor, he needs more sustenance than if he stands idle, though not so much more as is sometimes supposed. A man in health requires and uses about the same quantity of food, whether he works or plays; and this principle guides me in the care of my horse. The same quantity and quality, whether he works or not, given at about the same time each day, keeps him always in condition for any service required, besides conducing to his health and soundness. At this time, I am keeping an eleven hundred horse on three bushels cut hay and nine quarts of shorts daily, wet and put before him at regular intervals—morning, noon, and night,—and though he is used considerably and for various purposes, he gains in condition constantly.

This method I have tried with a number of horses, in the last fifteen years, with the same satisfactory results. I once kept a nine hundred horse three months on ten hundred pounds of hay and five bushels of corn meal, given cut, wet, and mixed, and found him some pounds heavier at the end than at the beginning of the time.

Carrots, given once each day, instead of the meal, I have found satisfactory; and my impression is, that this root is not properly valued as food for horses, and perhaps cattle also.

In my opinion, if the regimen above suggested were to be adopted generally by horse-keepers, we should have fewer horses affected with heaves and otherwise defective. Over feeding with dry hay is more frequently the cause of heaves than all other causes combined. But it is objected that it is too much work thus to prepare food for horses. With such objectors I have no argument or patience to waste. A person of properly regulated habits always finds time and a willingness to do what ought to be done, while laziness never wants an excuse for negligence.

E. INGHAM.

Springfield, Conn., Nov., 1858.

### ON THE ADVANTAGES AND DISADVANTAGES OF GRAIN DRILLS.

EXPERIMENTS thus far with grain drills do not seem to settle the question of the propriety or impropriety of their use. So far as I have noticed and learned from experimenters, about as many have been disappointed in their expectations of benefit from their use, as have had their hopes realized; and I do not doubt that positive benefit and injury have been the result of different experiments. To settle this question, it seems necessary to look at the laws of germination and growth.—Every plant has its crown, or the point where the roots and top unite. This is at, a little below, or a little above, the surface of the earth, according to the habit of the particular plant. In grains this point is one-fourth to one inch below the surface. In the turnip, carrot and common beet, this is in most kinds at the surface; in the mangel wurzel and some kinds of radishes, from one to six inches above. The seed having been deposited deep, or shallow, makes no difference in the position of the crown when the plant is matured. The habit of the plant is to send its roots down and its top up from the seeds; and it would seem that the proper place to deposit the seed, is where the habit of the particular plant places the crown. This is doubtless correct in theory, for grains and all plants in which the crown becomes permanently fixed. In a few plants, like the wurzel, the crown rises with the growth. Such cannot come under this rule. For the germination of seeds, air, moisture, and a certain degree of heat are necessary. At the time of seeding winter grains, the soil at the point where the crown is to be, is often too dry, and the seeds, if planted there, will not grow till after it rains. If you then plant them deep enough to reach sufficient moisture, they may be so deep, or the earth so compact, that sufficient air cannot reach them; but if sufficient air, moisture and warmth reaches them at, say four to six inches deep, a temporary crown is formed at that point till the top reaches the sunlight, when a new crown is formed at the proper point, and the old one with its rootlets abandoned to decay. To make this change there must be some expenditure of vital force, and the plant more or less hindered in its growth. It is important, in most cases, that seeds germinate soon after planting, and it is a question for the farmer to settle in his own mind, at that time, how deep to plant. If there be sufficient heat and moisture to start the plant at once, there is no question in my mind that the seed should be put at the crown point; but if too dry and sufficiently mellow, the question comes up whether to plant shallow, and wait for rains, or deep and submit to more or less loss of force. In sowing broadcast, especially upon furrows, the seeds are deposited at different depths—some at the proper depth, and some not, and some generally fail from being too deep. All seem to admit that more seed is necessary in sowing broadcast than in drills. Why is this, except that in the former case some fail from being at improper depths? The advantages of drills, therefore, are that, as you can gauge them to any required depth, you can take into consideration all the circumstances of the case, and sow more understandingly. The disadvantages are that if you disregard all conditions of soil,

depth, &c., you may sow all your seeds at improper depth, while if you, under the same circumstances, sow broadcast some of your seed will be pretty sure to be right. S. B. P.

*Gothenburg, Ontario Co., N. Y., Nov. 22. 1858.*

#### ADVANTAGES AND DISADVANTAGES OF DRILLING WHEAT AND OTHER GRAINS.

**THE ADVANTAGES OF DRILLING.**—It is an established fact that the small grains require to be planted at a depth not less than one inch nor more than two inches to insure germination and growth. If planted deeper, the seeds do not all grow; and if less than one inch deep, they are liable to be exposed to the depredation of birds, fowls or vermin, or to become desiccated, and the germ thereby killed. Experiments and experience have both shown that the seeds of all the cereals grow the most readily and surely at an average depth of one and a half inches. In order to insure this depth of planting, grain drills or plows have to be resorted to; but it is very difficult to set a plow or gang of plows for so shallow a furrow, and in consequence, grain drills, if well made and of proper construction, are the only reliable means for planting at a uniform depth. The drill also covers every kernel, giving birds and vermin no chance for depredations, and, of course, requiring less seed to be sown. Indeed, most farmers who use drills, say the saving in seed pays the cost of drilling.—Furthermore, the seed is left in the bottom of parallel furrows, and a small ridge is thrown up between; that is worked by the action of the frosts of winter over the roots of the grain, thus preventing winter-killing. Grain can be sowed with a drill as well during high winds as when it is calm; thus rendering the farmer in a greater degree independent of the weather. Lastly, but not least by any means, in order to drill in grain well, the land must be in good tilth, well plowed, and thoroughly harrowed. No half-way work will do; for if the land is not thoroughly pulverized, the drill will not cover the seed, and the labor is lost. Therefore, drilling, by covering the seed at a uniform depth, by covering all the seed, by not permitting it to be blown about by the winds, by preventing winter-killing of fall grain, and by requiring good cultivation of the soil, preparatory to sowing any kind of grain, is the best manner of sowing the cereal grains.

**THE DISADVANTAGES OF DRILLING.**—After the land has been harrowed and plowed, one way, by sowing the seed on broadcast, and then cross-harrowing, there is a saving of time, as when the harrowing is finished the work is finished. In the spring of the year it very often happens that by waiting to drill after harrowing both ways, a rain comes on, and the grain can not be sown for several days; whereas, had it been sown broadcast, it would have been up. A week in the spring makes a great difference at harvest. Often a field sown a week before another yields double the crop per acre, *ceteris paribus*. If winter grain be sown broadcast on well-drained land, it will not winter-kill.

*Ergo*, drilling is often a positive disadvantage in sowing spring grains, and of no material advantage

in sowing winter grains on well-drained and mellow soil.

These are the advantages and disadvantages of drilling, according to my own experience and that of my neighbors. D. A. A. NICOLS.

*Chataque Co., N. Y., Nov. 1858.*

#### WHEAT FARMS FOR DIARY PURPOSES.

"Wheat failing, can farmers on the same lands make the dairy business profitable?"

They certainly can, at the present price of dairy produce. There are not many wheat lands, or at least few of what were once considered good wheat land, but will bear at present fair if not large crops of grass for pasturage in summer, or to be cut for feeding in winter. The raising of wheat for a long time upon the same land, has removed the necessary constituents from the soil for its full perfection; consequently, the crop has in a measure failed. The feeble growth of the plants, owing to the unfitness of the soil, invite, as it were, numerous insects, which prey upon and destroy what little grain there otherwise would have been.

Now, a farmer with say one hundred acres or more, who has always made wheat raising his business, finds it will no longer pay. He must change his productions, or his farm will prove unprofitable. He lays down his former wheat fields to grass, which no doubt, although they will not produce wheat, will produce fine grass; he purchases as many cows as he can keep well; and, as the saying is, goes into the dairy business. The former wheat grower is now on a par with the farmer in some other section of country, who, from the nature of his soil, was compelled to adopt the dairy business in the first place, except that perhaps his lands are better; for wheat lands, wherever I have observed any seeded to grass, always yield better crops than most of the lands that will not produce wheat. There appears no reason why the wheat grower may not make the dairy business profitable. Butter and cheese bring a good price, and cattle are an average, though not as high as some time ago. And there is another advantage in the dairy business. The manure from a large number of cows, if applied with judgment, would in a few years, perhaps, enable the dairyman to pursue again the business of a wheat-raiser.

When wheat has failed, an entire change in the rotation and cultivation of the farm is required, and no method can be pursued better calculated to produce as beneficial an effect as keeping cattle; and cows are by far the most profitable, as it enables the farmer to raise pork and young stock cheaper than he otherwise could; for the cost of raising calves the first summer, and keeping hogs, except a month or two in the fall, are almost nothing, taking out the cost of tending, and almost a clear profit. But no one doubts the profits of the dairy business; and why should not the wheat-raiser, with his good soil for all crops except of the wheat class, make his fine improved farm profitable as well as others, especially until, by a change of management, the former wheat producing condition of the soil is again produced, when wheat growing can again be resumed if desired?

E. P. PARMER.

### CULTIVATION OF WINTER BARLEY.

The soil most suitable for barley, is a good strong loam. If not naturally rich enough, it should of course be manured sufficiently to make it so. It should be well drained; for land inclining to be wet, and not sufficiently drained, will not pay to grow barley. There are, no doubt, a great many manures that will answer the purpose. Stable manure does very well; so does one or two good green crops plowed under, such as red clover, rye, &c. Of course they should be well rotted before the grain is sown. Oat stubble is perhaps preferable to most other ground for putting in fall barley, for various reasons, some of which will be explained in their proper place.

It is a very important matter that the ground should be thoroughly broken up and well prepared by the last of August, in order that the barley may be sown as early as possible in September, if seasonable, and if not seasonable, it should be put in the first suitable weather, as a general rule, (lat. 38°), we cannot sow too early in September; but when we have a very hot, dry season, it would be better to wait until about the 1st of October, when the sun has not so much power. It would be advisable to sow then without waiting longer, even if the ground is rather dry. The sun will not be likely to hurt it after that time.

There is quite a difference of opinion in regard to the amount of seed sown to the acre. Two bushels, perhaps, is as near right as we can come at it; and in this item we should be governed by the time it is sown. For instance, one and three-fourth bushels, or even one and a half bushels, sown early in September, will be equal to perhaps two and a half sown in November, for the very plain and palpable reason, that when sown early it has a chance to stool or spread out over the ground, but when sown late, it has such a precarious existence that it has no chance to spread before a great deal of it is thrown out by the frost, and perishes. After sowing, the grain should be harrowed, cross harrowed and rolled, the old furrows opened, or others made wherever it may be thought necessary, for it will not do for water to stand on it.

Barley has its casualties to encounter, as well as wheat and other grain. If sown before the 1st of September, there will be danger of its coming to a joint before the hard weather of winter comes on, and it may be rained; but sown about the 1st of September, there is not much danger in that particular. It is true the insects, &c., may injure it more or less, yet all the injuries it is likely to sustain from those causes are not to be compared to the injuries received by the late sowing, from severe weather and other casualties.

The reasons why oat stubble is preferable, are that it is easier broken up, and we can make a far better job of it than we could with wheat stubble, or other ground that had lain twelve months without being plowed. But the most important advantage of all is that, when the barley is put in about the first of September, all the scattering grains of oats that are in the ground start and grow up with the barley, thereby helping to cover the surface of the whole field before the hard weather sets in; and when that does occur, the

barley will be so firmly rooted and matted over the surface, that it will not suffer much by the weather. The hard weather will of course kill the oats, and in the spring the barley will have all the surface to itself, and a good start. J. L. K.

*Jefferson Co., Ky., Dec., 1855.*

### RYE AND ITS CULTIVATION.

In 1856, the rye crop of the United States was estimated at 30,000,000 bushels, of which Pennsylvania produced about 12,600,000 — being nearly one half raised in the Union. It is also grown on the light lands of Ohio and Michigan. One of its advantages is the fine straw it furnishes for litter, thatching, and other purposes. In Pennsylvania, a large proportion was formerly used for distillation. In New Jersey and the Eastern States, most of the rye is appropriated to the more legitimate purpose of making bread. In the New England States it is second to the corn crop, and with that, enters largely into consumption as "rye and Indian" bread, — the real "staff of life" to thousands of the inhabitants.

Rye is very extensively cultivated in Europe; in Great Britain to a limited extent; but on the continent, and especially the northern portion, very largely, forming, as it does, the principal part of the bread of the people.

Rye succeeds best on rich, sandy loam. It prefers a light, dry soil, and will grow freely on light sands and gravels, where oats and barley fail. The strong clays in which wheat delights, seldom produce good crops of rye, as in such soils there is too much water; though loamy soils, on which wheat lodges, will sometimes produce a good crop of rye, its stronger stem enabling it to sustain itself under its luxuriant growth.

It has been remarked that four crops of rye do not exhaust the soil as much as three of wheat; and a successful cultivator of this crop gives as his experience, that when rye has been cultivated for a term of years upon the same land, and early clover sown upon it in spring and plowed in with the stubble in autumn at the time of sowing the next crop, the land, without any other application, has been kept in a gradual course of improvement and the yield of rye continually increase. This accords with my own experience; but from experiments made on my own farm, and others by my suggestion, I believe it much better to let the clover remain the second year before plowing under, as then it is more mature, furnishing a larger amount of green manure in a better condition for improving the land.

The preparation of the soil for rye is the same as for wheat; but as it is a less exhausting crop, poorer soils may be employed. Pasture land or meadow, turned over deeply in the fall or early spring, and harrowed, or, what is better, worked fine with the gang plow or cultivator during the summer, will ensure a good crop. Many farmers are opposed to the application of fresh barn-yard manure to land intended for this crop, preferring short manure, or that it should follow some other crop that has been manured.

Rye is generally sown in the autumn, throughout the Middle and Western States and parts of New England, but in this Northern region, in

localities exposed to stormy northern winds, spring sowing is generally adopted. Winter and spring rye are different varieties, as of wheat. The proper time for fall sowing, in the States referred to above, is the middle or latter part of September. In this section, the last week in August is considered best, as the young plant starts vigorously, and has time to take firm hold upon the soil before the cold and frosts of autumn check its growth, enabling it better to withstand the thaws and frosts of spring, which occasion what is commonly called "winter-killing." When spring grain is sown, it should be done as early as the season will admit.

The amount of seed varies from one to one and a half bushels per acre, according to time sown, it requiring more for spring than for autumn sowing, as it tillers largely if it has time in the autumn.—In localities where the winters are comparatively mild, if its growth is luxuriant, it may be fed off both fall and spring, without injury. It is sometimes sown mainly for the purpose of furnishing early pasture, but is then sown much thicker.

Rye, like wheat, yields improved grain by being early harvested. It is heavier, and gives more and whiter flour. A saving of grain is made by early harvesting, as the waste from shelling is avoided. For bread-making, it is wholesome and palatable; and when mixed with Indian meal, and baked for a long time, it makes the famous "rye and Indian" or brown bread.

The common weight of a bushel of rye is from 55 to 57 pounds. FRYE, JR.

Andover, Me., Dec., 1858.

### IS CORN A MORE PROFITABLE CROP THAN BARLEY IN WESTERN NEW YORK.

THAT corn is a more profitable crop than barley, it appears to me no rational man can deny. Taking into consideration the large amount of valuable fodder produced by the corn crop, it enables the farmer to keep more stock; and the more stock, the more manure; and the more manure, the greater crops—of corn and barley too.

An acre of corn stalks, if well preserved, are worth nearly or quite as much as an acre of clover hay; and the farmer who makes corn his principal crop can nearly dispense with his hay crop, there being no better fodder, either for cattle, horses, or sheep, than well-cured corn stalks.

Again, corn is a more certain crop than barley. Who ever heard of the total failure of the corn crop? There being so many varieties ripening at different periods from planting, it is suited to all seasons and nearly all latitudes. Those who are favorably situated, with a soil dry enough to plant early, can plant the common, large, late varieties; and there is no crop that is more certain. Those who are not so favorably situated, and, on account of a wet soil, have to plant later, can use the *King Philip* and other early varieties which ripen about the same time, and are very sure of a good crop. Again, if any must plant still later, (on account of a bad season, like the past,) they have the small yellow Canada corn, which ripens still sooner, and they can secure a good crop. A large amount of corn of these early varieties was not planted until the last week in June, the past season, and pro-

duced crops of corn that pay much better than barley in these uncertain times of crops and prices.

I would not be understood as recommending these early kinds upon soils that are warm and dry enough to plant the large varieties early; but the barley crop must be got in early, wet or dry, if we expect to reap a paying crop. And in this respect corn is again the most profitable; for nearly all soils will raise corn of some variety, while there are but few good barley soils.

It may be said that we must sow winter barley. But here again the same difficulty arises. We must have a dry soil or it will winter-kill; and dry soils, in this section at least, are "like angels' visits, few and far between." If perchance we have the prospect of a fair crop of barley—if it escapes all the casualties of wet, drouth, and weevil!—a wet time about harvest will nearly blast all our hopes. A storm of wind and rain, as we often have at that season of the year, will beat it down, causing it to grow and turn black, thus detracting from its value and making more work to harvest it than it is worth. In fact, there is no more uncertain crop raised, in the whole catalogue of grains, than barley.

Newfane, N.Y. Co., N. Y., 1858.

C. C. WILSON.

### CORN STALKS—CUTTING, CURING, AND FEEDING.

"On the best method of cutting, curing and preserving, and the most economical way of feeding corn stalks."

My plan is to cut twenty-four hills to the shock. I use a stay post with two arms, made from a light piece of wood, two and a half inches square, four feet long, with a pointed socket on the end. I bore two inch holes crosswise through it, near the top, put a couple of good rods two and a half feet long through the standard, making four arms. Set the post in the ground, cut the corn, and set an equal number of hills in each square. Bind the tops, withdraw the arms, reach in the hand, turn the post a little, and lift it out from the shock.—By this operation I have no hills of green corn to hinder the curing process; no hills to cut off when husking and drawing in. Stocks set up in this manner stand firmer than any other way I ever tried. I usually cut up corn the last of September and first of October, husking, as soon as dry enough, in the field, putting four shocks into one, until finished. I draw in on a damp day, and instead of packing or laying down in the mow, I stand them up, as closely packed as possible, butts down, and never have a mouldy corn stalk. I cut them for feeding, cutting a whole day at a time, sprinkling them occasionally with weak brine. When feeding milch cows, I put on a little bran, or mix in a few turnips or carrots. I have no waste, no long stalks in my manure, and my stock do full as well as on hay, especially my cows. They give milk of better quality than when running out on late frosted feed, or fed on dry hay. Some say cut stalks make their cattle's mouths sore. I never feed cut stalks in hard, frozen weather, but only when it is warm and moderate; and never had cattle troubled with sore mouth. I also feed them moist, and change to hay when cold, or cattle seem tired of them. I never confine cattle to one kind of feed more than five or six days at one time, if possible to change. DAYTON SIGLER.

## CLOVER SEED.

"On raising clover seed, and the best method of harvesting and preparing for market."

In preparing land for growing clover seed, we generally plant it two years previously with some root or hoed crop, taking care to manure it well with barn-yard manure. We then seed the ground in the spring with clover seed, sown with a crop of spring wheat on barley, sowing about six or seven pounds of clover seed to the acre, with a due mixture of timothy seed, sufficient to make a crop, should the young clover kill out in winter. The timothy does not injure the clover for seed, and improves the quality of the first crop for hay, and comes in for a crop of hay the following year.

After the grain crop has been harvested, care should be taken not to graze the young clover plant too closely. A little grazing in the fall, as long as the ground is dry and firm, does little harm; but on no account in the spring, no matter in what condition the ground may be. In the spring, the ground should be cleared of stones or roots, about a hundred pounds of plaster sown to the acre, and well rolled.

The first crop of clover ought to be cut from the twentieth of June to about the eighth of July, according to the season; the earlier, the better will be the seed crop, and the sooner it will be fit to cut. As soon as the seed becomes ripe, we take a reaping machine, setting the knives high enough to secure all the heads, and leave the bulk of grass, raking it off as often as enough has gathered for a moderate-sized fork full, as large cocks are objectionable. Ten acres may be cut in a day in this way. Care should be taken to rake the clover off in neat bunches, as it saves much time and labor afterward in turning and raking up the seed.

If the weather is favorable and dry, the clover seed may lay one or two days, and then be turned carefully over, when another day, if dry, will make it fit for the stack or mow. It is of very little use to put seed clover in cocks, as they will not turn rains; and should they get wet in the bunches as left by the reaper, it will dry soon.

In stacking or mowing clover, care must be taken to raise the bottom of the stack or mow, on the side most exposed to the prevailing wind, to allow the air to pass in, and then draw one or more empty barrels up through the mow, as it is filled up, forming a chimney for sweat or steam to pass up, for, no matter how dry clover is, it will sweat more or less when put in the mow.

Clover seed thrives best in the coldest weather. We run the clover through a threshing machine, taking care to feed the machine light, so that it may thrash it clean. After the clover is threshed, it requires to be riddled to take out the stems and stones. This can either be done by using a flat riddle, about five feet long and three feet wide, with meshes about three-quarters of an inch wide.

Where a large business is done in raising or cleaning clover, it is better to construct a riddle about seven or eight feet, either square or six-sided, like the bolt of a flouring mill, the meshes about three quarters or an inch square. This may be placed at an angle so as to allow the chaff and stems pass to the lower end easily, and be operated by hand, or a belt from the machine. It is better to have a clover-hulling machine, which hulls, riddles,

and cleans the seed; but those who can not obtain them, can use the riddle. After it has gone through a clover-huller, the seed has to be sifted through a sieve, of about eight meshes to the inch, and then put through a fanning mill to blow out all the dust and light seeds. It is then fit for market.

It has been well said of clover, that "it is valuable to the farmer for three important purposes—to feed his stock, fertilize his land, and fill his purse. His cattle thrive upon it when green, as a pasture in the summer, and in the stall when fed with the hay in winter; his wheat and corn thrive upon it, when buried and decomposing in the soil; and his purse increases with the increase of his cattle and crops." A TENANT FARMER.

*Cobourg, C. W., Nov., 1855.*

## APPLYING MANURE TO CORN AND POTATOES.

"On the relative advantages of applying manure in the hill for corn and potatoes, and plowing it in."

I AM greatly in favor of spreading and plowing in manure upon ground which is to be planted to corn or potatoes, instead of placing it in the hill, for several good reasons.

I would not place the manure in hills, because its effects are of small value to the crop of corn or potatoes. What possible benefit can a shovelful or two of unfermented yard or stable manure do a hill of corn? Two-thirds of the farmers use the manure made in winter, for application to their fields in the spring. It is nothing more or less than green manure. If the weather, after planting, should prove wet, it will be one chance in a hundred if the seed does not rot—corn, especially. If the weather is dry, the manure dries into a solid mass, and is more of an injury than a benefit. Should the season be just right, the roots of corn soon grow beyond the effects of the manure, and leave it useless at the bottom of the stalks, where it can be of no use until the field is plowed again for another crop. If well rotted manure is used, applying in the hill will do very well. Yet its effects are too contracted, and the full force of the manure is lost to the crop.

I am not in favor of manuring potatoes in the hill, under any consideration, as I believe it more of an injury than otherwise. I have always seen the best potatoes raised upon ground well manured for some other crop the previous year, especially late years, when there is danger of the rot.

My reasons for spreading and plowing in the manure are, because it is where it can benefit the crop during the whole period of its growth. It is mixed with the soil, and within reach of the roots of the plant along its whole length, where it must be of more value to the plant than when placed in the hill. It is impossible for the manure, when placed in the hill, to influence the growth of the crop beyond the first commencement; and although an early start in spring is very beneficial, yet would not that hill out grow and out yield, which could obtain a rich supply of nourishment for its plants during the whole season, instead of the one which had a full supply during its early growth, but was stunted all the rest of the season, as corn and potatoes must be, when dependence is made upon applying manure in the hill alone?

E. P. B.



### ON THE USE OF BURNT CLAY AS MANURE.

ABOUT four years ago, I had my attention called to the use of burnt clay as manure, by an Englishman, who used the ashes of burnt clay on his potatoes and garden vegetables. The good results obtained by him induced me to try the plan. Accordingly I burnt ten bushels of ashes from good clay sods, and applied them to one-tenth of an acre of meadow land. I sowed them broadcast, about the last August. The effect was quite perceptible during the fall, and the next season the crop of hay was at least one-third heavier than it was on a meadow adjoining, where there had been no manure of any kind applied.

I was induced by my success on meadow land, to continue the use of burnt clay. I burned two hundred bushels during the fall of 1856, and sowed broadcast one hundred and fifty bushels on one and a half acres of meadow land; and the next spring I applied fifty bushels to half an acre of potato ground. The results of the burnt clay on the meadow land was quite as satisfactory as in my first trial of them, and the results of the burnt clay on the crop of potatoes was equal to an increase of one-third over half an acre adjoining, in which no manure of any kind was applied, both pieces receiving the same amount of cultivation, and were of the same variety of potatoes.

Being well satisfied with past experiments in the use of burnt clay, I burned four hundred bushels, in the fall of 1857, and during the past season have used them on meadow land, on potato ground, and on spring wheat. The results on grass and on potatoes were equal to the results previously obtained; but on spring wheat, the effects were not at all perceptible.

I think its effects on grass and potatoes have been equal to the effects of plaster, if not more so. I shall apply some of it on spring wheat, next season, and I anticipate better results than I obtained last season. I shall also continue its use on meadows and potatoes, and shall try it on carrots, oats, and other crops, and watch the results with interest.

BEE.

*Hickory Bluff, Erie Co., N. Y., Nov., 1858.*

### THE VALUE OF LIME AS A MANURE.

"To what soils and crops most beneficial—the quantity per acre, and the best time and method of application."

THE extensive and increasing use of lime for agricultural purposes, indicates the opinion of farmers in regard to its usefulness, although there is great diversity of opinion on its application, so as to derive the greatest advantage in promoting the growth of plants. Experience has taught me that the best and most profitable mode for its application, is on grass land. If the grass seed is sown in the fall, with the wheat and rye, which is the common practice with us in New Jersey, as soon as the harvest comes off the next year we apply the lime, with the least delay, and while fresh slaked and in a dry, mealy state. It can be read more evenly on the ground, and is in a state to be more readily taken up by the fine roots of the plants, than if allowed to get wet and clammy. It is found most beneficial to keep it as near the surface of the ground as practicable, as the specific

gravity or weight of this mineral manure is so great, that we soon find it too deep in the ground for the fibrous roots of plants to derive the greatest possible benefit from its use.

With this method of application are connected several advantages. The lime can be hauled in the fall after the busy season is over, and when spread on the sod in this way, comes in more immediate contact with the grass and grass roots than when the land is first plowed.

In fields that have been limed in part in this manner, and then plowed, and lime applied to the remainder at the time of planting with corn, I always observe a great difference in the corn crop; and in plowing up the stubble the next season, the part limed on the sod is much mellowed than that limed after the sod was broken, presenting a rich vegetable mold not observed in the other part of the field.

This discussion respecting the application of lime as a manure, reminds me of the old man's advice to his son: "Put your lime," he said, "if possible, on your new made sod; if you cannot put it on before it is plowed, put it on as soon after as possible; and if you cannot put it on after it is plowed, put it on the best way you can." Though I would not apply it to plowed land on which there was no vegetable coating, unless I supplied the deficiency by a full dressing of long manure.

*Hunterdon Co., N. J.*

JOHN. T. SERGEANT.

### THE BENEFITS AND THE BEST MODE OF APPLYING SHELL AND OTHER MARLS.\*

MARL has been used as a manure from the earliest ages. "When I marched an army," says VARRO, "to the Rhine, I passed through some countries where I saw the fields manured with white fossil clay." All parts of England are dotted over with old marl pits from which marl has been drawn out on the land as manure. This marl consists principally of clay combined with carbonate of lime and more or less phosphoric acid. It will effervesce on the application of strong vinegar, which sets free the carbonic acid of the lime. The phosphoric acid, of course, is of great value; and the lime, as it slowly becomes available, is also beneficial. There are also many other valuable constituents of plants in the marl. But since the advent of artificial manures, the use of marl in England is far less common than formerly. The extensive cultivation of the turnip, which delights in light land, has also helped to render marl less needed. The turnips are consumed on the land, by sheep, and their pointed hoofs consolidate the soil; and this I regard as one of the principal effects of the old-fashioned practice of marling.

The usual amount of marl applied to the sandy lands of Norfolk, is from forty to seventy loads per acre—a load being about forty bushels. It is drawn out in autumn and winter, and spread upon the land, so that the frosts can pulverize it. Its effect is slow but very permanent, and invariably beneficial. Lands worth only \$1.25 per acre (rent)

\* The committee, though awarding the above essay the prize would state that it is not as full or as practical as the importance of the subject requires. They hope those who have had experience in the use of marl, will favor the readers of the *Farmer* with their views.

have been raised in value to \$5 per acre, by the process of marling.

Shell marl is usually found under bogs and mosses, and is composed of the remains of small testaceous fish, which, dying in their shells, become converted into calcareous earth, their bodies, when decomposed, furnishing a rich mould of animal matter.

It consists principally of carbonate of lime, and is frequently burnt and converted into quick-lime. It is said that lime made from shell marl is more valuable for manure than that made from limestone; but of this I can not speak from experience. I can not see why it should be any better. Lime is lime, and it can be nothing else. The organic matter, which is undoubtedly very valuable as manure, would be all consumed by a heat sufficient to drive off the carbonic acid.

Where shell-marl is plentiful, I think it would be better to apply it in the crude state in considerable quantity, rather than to burn it. The organic matter would decompose in the soil, and furnish the ammonia so much needed by wheat and other cereals, while the carbonate of lime would become gradually available from the influence of the atmosphere and the acids of the soil.

It usually proves very beneficial on the mucky land near which it is found. It would seem as though nature had placed it there for use on such land.

M. R.

#### IMPROVING PERMANENT GRASS LANDS.

HAVING had some experience in the improvement of permanent grass lands, I will state my method of proceeding.

I have had no experience with any other than meadow lands, and these being too moist to plow, have been allowed to remain as permanent meadow. I have been particular in stating the nature of the soil, for the reason that the same management might not answer on different soils. Land intended for permanent meadow, should first have all stones, sticks, and other obstructions, removed from the surface, in order to render it perfectly smooth; and if the field is knolly, it should be leveled. It requires much labor to prepare a piece of permanent meadow, but it pays well in the end, in the convenience of getting over it, the saving of labor in harvesting the crop, and better appearance of the field.

When a permanent meadow begins to fail, and the crop is light, and the field must be renovated, the best way is to give it a good dressing of wood ashes, leached or unleached. If the unleached are used, it will require considerable less than if leached are used. I have tried lime and plaster, but not with so good an effect as when ashes were used. Ashes have a good effect for several years, though I have found that after the third application the benefit in a measure ceases, and the crop is not materially increased. The application of ashes must be changed for some other means of improvement, or perhaps the field will be rendered unprofitable. My way has been to draw from fifteen to twenty-five loads of stable manure per acre, spread it evenly upon the surface, harrow it well, and then sow a peck of grass and ten pounds of clover seed to each acre, and harrow again well.

After harrowing, pick up all sticks, stones, or whatever may be brought to the surface, thus leaving it smooth and clean. After this treatment there will be a fine crop of grass, and the crop will continue good for many years. In the course of the first three years after spreading the manure, a top dressing of plaster will increase the crop.

With the above management, permanent meadow lands can be improved from year to year; but of all other means, the spreading of manure upon the surface and harrowing well, with the sowing of grass seed with each application of manure, is the best. Ashes, plaster, &c., tend to increase the action of the manure, besides their own individual action.

I have never received much benefit from the application of ashes or plaster upon poor soils; but when applied upon lands recently manured, the effect has been wonderful. In fact, the two seem intended to go together, as they each develop the force of the other, and render the application of both more profitable than that of either separately.

E. P. B.

#### IS STOCK GROWING TO BE RECOMMENDED IN THE PLACE OF RAISING GRAIN?

THE two systems of stock-growing and raising grain should go together on all farms and in all situations where stock and grain can be raised. There may be places where the price of stock is so low that it may be more profitable to raise grain but even then stock-raising, to some extent, will be found to pay better in the end; for it must be apparent to all that continually taking from other farms and returning nothing to them, will be more ruinous to the soil. We may, by applying lime plaster, and ashes, stimulate the soil to greater activity for a while; but this will only prove to be more ruinous in the end; for these articles on supply the inorganic elements of plants; and if organic matter is returned in the shape of barnyard manure, our crops of grain will by degrees grow beautifully less; and then again, there are some soils so springy and wet that grain cannot be grown to advantage. On all such soil stock-raising of course should take the lead; but as a general thing, the two systems should be hand in hand. Many farmers who keep but little stock, raise no more grain than others who keep several head of cattle, horses, and sheep; a selling all the grain off their farms, and sometimes even their hay and coarse fodder, and burning their large stacks of straw, and in these and various other ways continually drawing organic matter from the soil, and oftentimes "wasting their fragrance on the desert air," their farms are all the time growing poorer; while others, who keep a large amount of stock, consume some of the coarse grains and all their fodder, make large amounts of manure, their farms are all the time growing better—enabling them to raise more grain and keep more stock. There may be, a no doubt is, a limit to this; but I have sometimes thought that the more stock a man keeps, the more grain he can raise, thus realizing more than double profit—a profit from both stock and grain and also a profit from the increased amount of both stock and grain he is enabled to raise by combining the two systems.

C. C. WILSON

Newfane, N. Y., Nov., 1858.

## RAISING PUMPKINS.

"On raising Pumpkins—their value as food for cattle, and the best method of feeding them."

THE best manner of raising, is the time-honored mode of planting among corn. For immediate feeding, gather and feed with a pitchfork, if you choose, slovenly as it is; but if you wish to keep them any time, cut off the vines, leaving the stems of the pumpkins, place them in a wagon carefully by hand, and put them in an open shed; keep them from freezing by covering or removing to a root cellar. Feed with other food, grass, hay, straw, or milks—and never any more than the animal will eat up clean, and never rely on them for the principal food. As to their value, they are about equal, in weight, to beets, carrots, and turnips—rather preferable to the common white turnip.

NOW, friend HARRIS, were I Prof. LEIBIG, LAWES, HUNSTON, or yourself, your readers would be bound to take the above, without argument or reason, like G. GLASSE in the *Farmer* of November last; but being an obscure individual, your readers would be very foolish, and the American farmers are too intelligent, to take *my mere say*, without a reason that shall carry conviction.

My manner of raising needs no argument, as it is most universally adopted. No doubt an acre will produce more corn and pumpkins to plant them together than separate, for very obvious reasons. As to the manner of gathering and storing, you will be but to notice that where they are bruised, or the stems knocked off, there they soon begin to rot; and all know that a hard frost injures, and freezing kills them. It is their value for stock, and the manner of feeding, in which men differ widely in opinion. It is a common remark that "they dry cows," "will not fatten cattle," and are "good for nothing for hogs." No doubt these opinions (like mine) are founded upon experience and observation—like the man who *knew* there were ghosts, he had *seen* them. Gathered and fed as they usually are, the above quoted results are precisely what I should expect. It is known to most householders, that the seeds are a powerful diuretic. They have been used as such probably from the time of PROCRATES. The effect of diuretics is to increase the waste of the body, diminish the volume of blood, and the secretion of milk. The ordinary method of feeding, is to pitch off a wagon load, enough to last two to six days, throwing them hard enough to break the shells. The first meal is made mostly from seeds, producing diuresis, and the above mentioned effects; and during the next four or five days, the animal can no more than recover the effects of the first day. It is known to agricultural chemists, that the pumpkin, like the beet, rutabaga, and turnip, contains a very large proportion of water—85 to 90 per cent.—decidedly too much to be fed judiciously alone, and too much to feed all the animal will eat, while running to grass, which, as it is in the fall wet with dews and rains, furnishes about as much water as the animal needs.

Allow me here to digress, and say that the disease among horses in the summer and fall of 1857, which carried off so many in Ontario and Yates Counties, (N. Y.) was caused by the excess of water, taken with the grass. I was convinced of the fact

at the time, from noticing that no new cases occurred, except immediately after rains, and none among horses kept up nights.

The full value of the pumpkin is obtained when fed with hay, straw, and stalks, adding grain when fed to fattening animals, and never giving pumpkins enough at a time to cloy the appetite for fodder.

The real objection to the extensive cultivation of the pumpkin is, that they are short-lived at best. Still, by care in handling, and good places for storage, they may be kept till January. I have always found milch cows to thrive and increase their milk, when fed on them in my way, and have fed them to hogs and young cattle with decided benefit; and I think them, while they last, the most economical food that can be raised.

S. B. P.

Gorham, Ont. Co., N. Y., Nov., 1858.

## EARLIEST AND BEST MODE OF RAISING TOBACCO PLANTS.

To raise tobacco plants early and successfully, is a great secret. People often fail to get early plants, because they do not take sufficient pains to put in the tobacco seed; nor do they make their beds in the right location, and put them in a suitable condition for the rapid growth of the plant. A tobacco seed seems to be slow to start, unless you resort to the most ingenious means to force it to swell and sprout.

The earliest, and perhaps the best mode of raising tobacco plants, is as follows:

Prepare a bed, say 40 feet long and 10 feet wide, in a warm place where the sun will help enliven the soil; pulverize the ground thoroughly and deeply, and in the meantime work in fine manure, free from foul seeds, so that weeds will not come up among the plants; rake down the surface of the bed smoothly and nicely; and after you have thus perfected a kind of *hot-bed*—not at all expensive to make—and when you are satisfied that the ground is warm, or in a satisfactory state to receive the seed, sow it on the bed at the rate of three ounces for a plat of ground of the above size. But, before sowing the seed, prepare it in the following manner: Put three or four ounces into a tightly made woolen bag; moisten it with warmish water, and then hang it up behind the stove in a warm location. It will soon begin to show signs of sprouting, (it should be watched;) and having found out that it is about to germinate, by its swollen condition and other indications, sow it on your bed in connection with two or three quarts of dry sand or Indian meal. The surface of the bed should be pressed down with a heavy plank before sowing the seed, and *never rake in tobacco seed*; but, after you have distributed it evenly over your plat of ground, either roll it in with a hundred pound roller made for the purpose, or tread it in with your feet. Some press it in with a plank. About the 15th or 20th of April is the time you should sow your seed, if the ground is passably warm. Some sow earlier and some sow later.

Now for the glass sash work over the bed—the sash made long and not too wide. Some do, and some do not use them. They should be placed over the bed, and the sun soon produces its good effects through the glass upon the surface of the soil, warming it into activity, and thus starting the

little plants into active vegetable life! The glass also protects the plants from frost; but mind you, when the sun shines warmly, be careful that by reason of its effects through the glass, it does not burn up your plants. After the plants have got up reasonably large—as large as a dime, for instance—the glass fixtures may be removed; and then you can dash on your liquid manure evenly with a tin watering sprinkler. You will be surprised to see the rapid growth of the plants, raised and managed in the above manner.

The bed should be thoroughly weeded, and judgment should be used in selecting a plot of ground as free as possible from foul seeds. Sandy soil is, on the whole, the best for the plants. Fine horse or hog manure is the best to incorporate with the soil of the bed.

In a few days after the plants get a start, they will be fit to set in the field in rows three feet and a half apart one way, and two feet the other.

I believe I am right in saying that to be a successful tobacco raiser is also to be a successful plant raiser. Raising tobacco is a trade; and in our Northern States, where a good deal of it is raised just now, the plants should be set early, and thus you will secure your crops early, and no fear need be apprehended that it will not cure.

Hereabout, a large quantity of tobacco is raised annually. Much patience is required to raise it, as in the cultivation of all other plants. T.

#### CLIMATE, SOIL, &c., OF MISSOURI.

"For the best information in regard to the climate, soil, productions, timber, and price of partially improved lands, in the State of Missouri."

CLIMATE.—It will no doubt be agreed, upon all sides, that a tract of country embracing upward of four degrees of latitude, must have a correspondingly diversified climate. While in the northern part of the State it is found necessary to feed stock for upward of six months in the year, there are many, calling themselves farmers, in the extreme southern part of the State, who scarcely feed at all; while here, at nearly a central situation, we have just begun to fodder our out cattle; and, as a general thing, our feeding time lasts from five to six months.

It has often been remarked of Missouri, that it is the wettest and driest, the hottest and coldest, country in the world. True, we have extremes; but I have been unable to discover much difference of climate between this State, Western Virginia, and Ohio. Our summers are pleasant. On the prairies, which are our principal farming land, there is always sufficient wind blowing to temper the heat of the sun, so that it is quite rare that the heat is oppressive.

SOIL.—Nearly every variety of soil may be found in Missouri. The northern and northwestern part of the State is, in a general way, better adapted to the wants of the grain-grower than other parts. The only reason I have to give for this assertion, is that there is a larger quantity of sand incorporated with the soil, (which is naturally very rich,) and thereby it is of a warmer nature, and crops come up and grow off quickly; while in the other parts of the State there is less sand, the soil is more clammy, water remains at or near the surface a long time, crops start slowly and grow slowly, and a

great portion of the prairie soil has a tight clay subsoil, which, although very good for cistern wells is not so beneficial for farming, at least until drainage is better understood and made use of. In the south and southwest, there are large tracts of broken and rocky land, which are unfit for cultivation, but are excellent pasture lands, well calculated for sheep husbandry.

PRODUCTIONS.—The productions of this State embrace every grain and vegetable grown in the Middle or Western States. Indian corn, tobacco and hemp, are perhaps the staples. In addition to these, are wheat, barley, rye, oats, Hungarian grass timothy, clover, red top, buckwheat, potatoes (both Irish and sweet), and culinary vegetables generally melons, grapes, apples, pears, plums, peaches, and small fruits in abundance. Our farmers turn out large quantities of cattle, horses, mules, and sheep. South of the Missouri river, the mineral wealth enormous. Iron, lead, and coal, are in abundance while the railways are facilitating the transportation of this mineral wealth which has so long remained undisturbed for want of the means of conveyance.

TIMBER.—There is a sufficiency of timber, properly cared for, to supply the wants of the inhabitants of the State. In the southern part, there are large tracts of cypress and pine, while all over the State there are white, black, red, overcup, post and pin oaks, and black jack thrown in. The bottom lands, which are as fertile as can well be imagined, are covered with sycamore, hickory, liwood, hackberry, and elm, with an undergrowth of pawpaw and spice in many places. Ash is all in abundance.

The price of partially improved land varies with the locality. While in some parts good land with tolerable improvement may be had at from five to six dollars per acre, in by far the greatest portion of the State tolerably improved land rates at from ten to fifteen; and close to cities or navigable streams, much higher.

In conclusion, I would just say to all who wish to settle in a rich, healthy, growing country, come and try it. You may do better, but you may do far worse.

WILLIAM D. MITCHELL.

Pin Oak, Warren Co., Mo., Nov., 1858.

"CAN CORN FED TO HOGS BE MADE TO PAY FOR OIL?"—Corn fed to swine can be made to pay almost anywhere, by proper management. However fertile land may be, I do not believe you can farm it long without manure. Therefore, in feeding corn to hogs, have an eye to the manure. Fattening swine, the meat is one object, and the manure is equally another. When pork is worth six cents per pound, you get seventy-five cents per bushel, in pork, for your corn; and with proper management, you get, in the long run, seventy-five cents more in manure. Turn your pigs into your orchard up to the middle of August; then put the into the sty, with a good yard, into which throw turf, muck, leaves, sawdust, or anything to absorb the ammonia. Sawdust, usually wasted, is much more valuable than many imagine. When thrown into hog-yards or stables, it absorbs the ammonia and forms a most valuable fertilizer.—HONEST STEARNS, Felchville, Vt., Dec., 1858.

## MANAGEMENT OF BEES.

WHOEVER expects to be successful in the management of the honey bee, must discard the word and substitute in its place good common sense and untiring attention. If left entirely to themselves, they will be found, like many other species of rural economy, not to pay, and the keeper will unwisely conclude that he has no use in keeping bees. On the contrary, if managed with diligence and skill, they will not only furnish the apiarian with some of the "sweets of life," but will also occasionally fill his pockets with the same.

**PLACING AND TENDING.**—Place the hive where it is intended they shall stand during the summer, and it should be where the sun can strike the hive in the early part of the day, and also where they can be easily watched by the family during the summer season. Keep the entrances to the hives well closed, to prevent the chilling of the young brood. This will also guard against robbery; for it is at this season of the year that they are inclined to rob, which they never do when they have plenty of honey to gather. About the middle of June, raise the hives from the bottom board facing blocks of wood or small stones under the corners. Some apiarians raise them up early in the spring, which is wrong, as the cold winds blowing will chill the brood. Some do not raise them at all, but leave them close to the bottom board all summer. In this case they should be moved every few days, and all worms found on the edges of the hive killed—not brushed down on the ground, for that is where they want to go, but give them a regular smashing.

**PROTECTING.**—Every bee-keeper should be provided with a bee-hat, which can be made of wire netting doubled round like a cylinder, with the two ends riveted together and a piece of cloth sewed over the top or crown. Take a piece of calico of the same length of the screen before doubling, sew the two ends together, making a cylinder as of the screen, and at the ends of the cloth and screen together, it is finished. Put the hat on, let the lower edge of the cloth come down around the neck and fasten it with buttons, button the coat or frock tight around the neck, put on a pair of woolen gloves or mittens, and you are armed for any emergency. Let the keeper who has never used one get one and try it, they will never do without one again. Lay the boards on the ground, and spread a sheet over them to keep the bees out of the grass, set the hive on the sheet with the front edge raised up an inch. If the swarm has alighted on the top of a tree that can be cut off, cut it off carefully and shake them off on the sheet in front of the hive, and they will soon enter. If they alight on a valuable tree, and you do not wish to cut the tree off, take a pan and brush the bees into it with a wing, and empty them in front of the hive. They will gather on the body of a tree or on the ground, as they sometimes do, brush them off into a tin or dipper, in the same manner. They will readily enter the hive. Some have supposed that the queen must always be got into the hive first, which is not so, she being frequently nearly the last to enter. As soon as they have all entered the hive, carry it where it is to remain, and cover

it with boards or green boughs to shade it for a few days. When this precaution is taken, they will not often leave the hive. If the hive is new, never wash it with anything. If it is an old hive, it should be scraped and washed with water sweetened with honey or sugar. Somebody once told me to wash my hives with sweetened whisky, and I have never had a swarm leave when treated in that manner. Second or third swarms, if small and late in the season, should be returned to the parent hive, which they will do if the queen is found and destroyed.

**FALL MANAGEMENT.**—Double all late swarms that have not honey enough to winter, as a large swarm will consume but little more honey than a small one; and if two small swarms, with the contents of their hives are put together, they will generally do well and make one good swarm, otherwise they must both be consigned to the brimstone pit.

**WINTER MANAGEMENT.**—See that the hives are properly ventilated, that the moisture which always arises from the good healthy swarm does not gather in the top of the hive and freeze in cold weather. Many bees are lost in this way. After consuming all the honey where they are clustered, they die of starvation. The remedy is to keep them so warm that the moisture will not freeze, or let it escape by ventilation.

**DRIVING.**—Sometimes it may be necessary, in order to save a swarm that is not doing well on account of the comb becoming old or the ravages of the bee-moth, to drive them out into a new hive. Make a box the same size of the hive, with a pane of glass in the top. Turn the hive bottom upwards and place the box on top, and wind a cloth around where they come together. Let them stand a few minutes, to give the bees time to fill themselves with honey; then, with a couple of sticks, rap smartly on the lower part of the hive, and they will rush up to the light to get out. When they are nearly up into the box, take it off, and, having previously arranged a hive as for swarming, shake them out in front of the hive, and they will soon enter. Take the comb out of the old hive, and what bees are left in brush off, and they will enter with the rest. A little tobacco smoke, blown into the bottom of the hive, will sometimes be of assistance in driving them up. The smoke of burning rags will also answer the same purpose. Smoking them also serves to make them good natured and less inclined to sting. If it should be bad weather for a few days after driving, they should be fed.

**DOUBLING OR UNITING SWARMS.**—Drive them out of one of the hives, as directed above. Then take one of the hives you wish to unite them with, invert it and smoke them well with tobacco or the smoke of cotton rags, then sprinkle them with sweetened water with a little peppermint essence in it. Take the box with the bees in it from the other hive, shake them out into the inverted hive, smoke and sprinkle them, and set the hive where it stood, with the front edge raised a little, that the scattering bees may enter. Smoke them occasionally for a short time. This will keep them good natured and give them all one scent, that they can not distinguish friends from strangers. They will commence eating the sweetened water, and,

mingling together, will live as one family. This should be done late in the season. If upon a pleasant day they should come out of the hive, the old one should be placed where it stood, and what bees enter it can at night be returned to the other hive.

*Niagara Co., N. Y., Dec., 1858.*

C. C. WILSON.

### FARM BOOK.

"For the best plan of a book in which the farmer can record his practice and experience in the plainest, most simple, and concise manner."

The value of a well kept farm record can scarcely be over estimated. It should be clear, explicit, and comprehensive—should contain the daily operations of the farm, notes of the weather and its vicissitudes; all interesting items about the animals of the farm, dairy, orchard; a separate record of every crop cultivated;—in short, everything worth remembering about the operations of the farm. This could best be arranged in two books—one for daily notes of work and the operations of the farm, which must necessarily be bringing many things together not properly connected but only to be remembered; the other, the book for future reference, or ledger.

The arrangement of the daily journal would be very simple—the book to be filled regularly from the beginning, with the date prefixed to each day's record, so that it would be a continuous record from one day to another through the year.

The ledger should be large enough for the purposes of one year, or may be sufficiently large for several years. It should contain, under separate heads, so as to be easy of access, all the substance of the journal, with some important additions. It may be arranged as follows: First, an alphabetical index, containing the names of the subjects treated of in the book, with the number of the page assigned to it standing opposite. Each subject in the ledger is to be treated separately, on a separate page, and to contain only what the farmer will need for future reference. Much of this matter is to be drawn from the journal, and may be transferred at regular intervals—each week, or month—or at the most convenient times. If Apples be the subject of the first entry, it will be put on the "A" leaf in the index, and given the first page in the book. If Wheat is the next subject, the name is to be put on the "W" leaf in the index, and to occupy the second page; and so of each subject to be treated.

The ledger will contain much that need not be recorded in the journal—as the account of each field kept by itself—the kind of crop, when put in, when harvested, with the yield, would be very useful for future reference, and to compare one year with another. In this way, the yield of the farm, or any part of it, is easily made out.

In its appropriate place, at the end of the year, will be made the balance sheet, containing the expenses, the losses, and the profits. This could be made very readily from a well arranged book.

In this way, a farmer will, in a few years, have laid up a store of experience that will be always valuable, and especially if he is a man of progress; for if his cultivation at one time is faulty, the record of it is continually before him, and the admonition will not be lost.

*Galesburg, Ill., Dec., 1855.*

B. G. NYE.

### WILL IT PAY TO KEEP POULTRY IN LARGE NUMBERS?

I HAVE raised large numbers of barn-yard fowls for several years, and have invariably found that fifty or sixty hens would produce more eggs through the year, in proportion, than twice the number, as they require a variety of food to keep them in health; and when out of health or keeling, they will not lay eggs, or hatch well. If they do hatch, the chickens will sicken and die in a few days, for the want of insect food, feed them bountifully as you will. You may prevent it, I measure, by feeding them fresh meat twice a week, chopped fine, with Indian meal, until they are a month or six weeks old, they will then be strong enough to ramble beyond the common walk of hens and obtain insects, as they keep all day where they take their daily rambles. I have kept ten dozen hens, and I never in the best season more than six dozen eggs per day. I have kept a dozen and got thirty-nine per day; from two dozen I received twenty-three per day for six months. I have tried it several times, and found I got the largest quantity of eggs and twice the number of chickens in proportion to the number of hens. I found that to have hens lay eggs, they must have their liberty a share of the time. It is the same with turkeys. The young ones are very tender, and they must have animal food which they will sicken and droop and die. If they have a hen turkey, she will take them through the fields when the dew is on the grass, and they will die. I raise them with a barn fowl. This season I raised eighty chickens and ten turkeys with five barn hens. They had two acres of commons and four acres of corn and potatoes to ramble over. I feed boiled potatoes with oats, and Indian meal jammed with them when hot, plain where they could eat when they pleased without cooling. I had five more hens that furnished a family of six with a plenty of eggs for their use, and do so yet. This is the result of my experience for many years.

Z. KNAPE

*Fortyfort, Luzerne Co., Pa., Nov., 1858.*

"SHOULD THE SUCKERS BE REMOVED FROM CORN?—Not unless you have plenty of boys with nothing else for them to do. The argument in favor of removing the suckers from corn I suppose to this: The suckers rob the stalks of nourishment necessary to their growth and perfect development and appropriate it to their own use. They never have but little if any corn upon them, consequently are of no value except for fodder.

I think it will not pay to remove them, unless I said above, there is no other work for the boys and perhaps not then, unless it be to keep them out of mischief. Suckers are not often thrown from corn on poor, hungry soil; and when they are, it is conclusive evidence to me that everything is as favorable as it can be to the growth and perfection of the crop; that it is growing as fast as it can; that the roots are taking up the necessary food for the plant as fast as it can be manufactured (so to speak) into corn, and perhaps faster; that, as a natural consequence, these new shoots suckers are thrown out because the sap or food of the plant can go in no other direction.—C. C. WILSON, *Newfane, Niagara Co., N. Y., Dec., 1858.*

### CAN HENS BEST BE KEPT SO AS TO PRODUCE EGGS IN WINTER?

ould a commodious hen house upon some plan, that there be a roosting apartment, a place for feeding, with boxes for nests. A good plan is to build in the shape of a parallelogram, with the long place across one end. The central portion should be used for feeding, the boxes for nests being placed around the sides of the building, with a narrow place between them and the wall, that the hens may enter the nests on the back side. Build the house either of stone, wood or other material, but it may be thought best; but let it be warm and comfortable in the coldest weather, and so made that it can be well ventilated. Procure some of the large Asiatic breeds, as I have found, by my experience, that they will lay in winter when the common varieties will not, with the same treatment. But the person who expects his hens to lay in summer, after laying all winter, will be disappointed. Give them as great a variety of food as possible, such as corn, buckwheat, oats, rye, &c., with pure water, daily. Give them meat once or twice a week, or oftener, if convenient, with an occasional feed of boiled oysters or apples. In short, make their feed as good as possible what it is in summer, and not attempt to give them a free supply of oyster shells, lime, or lime and sand. Mix lime and sand as for plastering a house, let it dry and place it in a place filled with it in one corner of the hen-house, and it is surprising how fast it will disappear.—I will lay some in winter without being to all trouble; they must have good, comfortable quarters. There are other advantages from having a hen-house aside from hens laying in winter. For three wagon loads of good home-made corn, every year, will soon pay the expense, and to raise corn to feed them. And then, again, meat cannot always be procured. They will do well if they have plenty of corn; and as this constitutes a large portion of oil or fat, it may perhaps be substituted for meat to some extent.

*Magazine, N. Y., Nov., 1853.*

C. C. WILSON.

### GRAFTING OLD APPLE ORCHARDS.

Is it better to ingraft old apple orchards of an inferior kind, or to plant new ones of improved varieties?"

In considering this subject, much depends on the condition of the trees in the old orchard. If they are in bearing, or nearly so, beginning to decay, it would be poor policy to expend time or money to put them on such stocks; but trees not too old—say not to exceed forty or fifty years from the time of being planted—good, healthy trees, that have not been ruined by ignorant and unskillful trimming, or by any other cause, may be grafted to great advantage, by cutting down the old trees and planting new young ones, in order to obtain the desired variety of fruit. At all events, such has been my experience in fruit growing. My orchard has been between thirty and forty years—all seedlings. In six to eight years since, I commenced and completed my grafting, nearly. My grafted trees are in healthy, in good bearing order, with tops sufficiently large to bear from eight to twelve bushels of apples each. Seven years ago, I set a young

orchard with trees of the usual size. These are now just beginning to bear; but I believe I have not as yet gathered a bushel from any one tree in this orchard, while from the grafts I have gathered as above stated. The grafts on the old trees are equally thrifty, *if not more so*, than the young trees, and the apples of as good quality. But renovating the tree and regenerating the fruit by grafting, requires experience and attention. In the case of large trees, not more than one-third of the top should be grafted in one season. Hence it would require three years to complete the operation.

Grafting large trees is also attended with some expense, it is true; *but then it pays*. I have set over seventy grafts in one tree. One tree, grafted seven years ago, has a top sufficient to bear, in good seasons, from twelve to fifteen bushels of apples. It is of the *Golden Sweet* variety. This, however, is not an unaided result; it requires some little attention—not a large amount, however, if given at the proper time—in preventing the growth of sprouts from the original stock from robbing the grafts of their proper nourishment. For want of this trifling care, I have known several instances where the grafting of an old orchard resulted in but little benefit to the owner. Proper care, or knowledge, and a judicious application of that knowledge, is indispensable to success in the different callings and occupations of life. D. LOTT.

*Lettsville, Warren Co., Pa., Dec., 1858.*

### CULTIVATION OF LIMA BEANS.

Though it may not be in my power to give you the best method of raising Lima beans, I will furnish you with my method, which has for several years resulted successfully.

It is not worth the trouble of trying to raise the beans, unless it can be done on good soil. I prefer a warm gravelly or sandy loam, which should be tilled deep, worked up very fine and mellow, and mixed with well decomposed manure that may be incorporated with the soil, if possible, two or three feet deep. I take great care to select a place that dries off early, and remains free from standing water or any unnecessary wet after showers. It improves the soil to turn and stir it two or three times during the spring, to assist in getting it warm. Some of my neighbors stir in fresh horse manure because it is warm, but my experience is against fermenting manures in the bean patch.

For a part of my patch, I start the beans in the hot-bed, on an inverted sod about four inches square. They root well and commence a strong growth in a thick, rich sod. It is very necessary to expose them to the air to get them well tempered before planting out. Remove them in the sod to the place prepared for the hills, which should be not less than four feet apart each way, and so made that the whole of the sod, now quite tender, can be placed in, and not on top of the ground.—Place one good pole to each hill; and some times, where the runners are strong, two poles may be used. These I prefer to put down before the roots get large, and have them well settled so as to stand firm. I have some difficulty in getting the runners to cling to the stakes; but, as it must be done, I stick to them until every one has fastened and begun to climb. I find Lima beans require a great



deal of hoeing. The ground must be kept clean and light all around them; and if it hardens after a brisk shower, I hoe it up thoroughly with my potato hook, which has five prongs. They must have a quick, vigorous growth early in the season, to bear well. I begin to pick as soon as they are large enough, and pick at regular intervals of two or three days, being very careful to cut off the pod with a sharp knife, so as not to disturb the vine.

For a main crop, I have had the best success in planting in rich, warm ground, after the middle of May, when warm weather could be depended upon. It takes them a long time to get over a pullback or check from cold wet weather. Planted in either way, the treatment should be the same.

I have practiced reserving some of the finest early pods and letting them ripen for seed. I have improved my beans in this way, so they get often a week's start of my neighbors. Most of the seed that is used are the beans that ripen later in the season, when they do not market as well. It is a mistake. The earliest and best should be saved for planting. On the first appearance of frost, I cut the vines at the bottom and pull the pole, placing them in small piles raised from the ground. I always pinch the tops after it gets so late in the season that the pods can not fill, and also of such vines as do not fruit well. All that is necessary, in a fair season, is good, warm, rich ground, and thorough cultivation and care.

H. CLARK.

*Geddes, N. Y.*

#### PRUNING THE VINE—WHEN AND HOW.

MANY excellent articles, containing rules and directions for growing, training, and pruning the grape vine, have been published in books and periodicals; but few of them are adapted to the wants of the majority of the readers of the *Genesee Farmer*, though they may be very useful to the tyro in vineyard culture.

Why do grape vines need pruning more than fruit trees generally? is a very natural and pertinent inquiry. Most assuredly they do not, in order to be equally fruitful. The pruning of either is strictly a matter of economy, and not necessary to the production of fruit. Both are inclined to grow too thick for the production of the most perfect fruit; therefore, in such a case we thin them by removing a part. Experiments prove that young, vigorous branches, produce the largest, fairest, and best flavored fruit, on tree or vine; therefore we remove old and stunted branches, to make room for new and vigorous ones. This plan we can follow to greater extent with the vine than the tree; for in the former, the new shoot bears the same season that it first pushes out, and the next season is in full bearing almost its entire length; while in the tree, a new branch from the main one or the trunk requires from two to six years to become equally fruitful. If you examine a vine, either cultivated or wild, that has not been pruned, you will see that, when a few years of age, the lateral branches that first came out are all dead and fallen off, and that all the fruit is on the main and lateral branches near the extremities of the former. As the vine grows older and pushes ahead, more and more of the ground is unoccupied with fruit. Taking the hint from this fact, we shorten in the

main branch, and do the same with the laterals cut them off for renewal. By so doing, we prevent the vine from getting beyond the trellis, occupy the whole ground with fruit-bearing branches. Had the vine plenty of space and trellis I am not aware that the product would be materially increased by cutting at all; still, I have no doubt that the product of an acre of ground we be quadrupled by judicious pruning, unless the same object should be attained by a yearly renewal of a portion of the plants themselves. The end aimed at in pruning, is to prevent the branches getting too thick, and to keep the vine within the trellis or boundary. The amount of yearly shearing in may be in proportion to the room you give it.

As to the time of pruning, I think that in this we can pretty much study our convenience; the vine being a more rapid grower, it will always do to wait. They should be pruned when they need it, taking care, however, not to cut much from the first starting of the sap in the spring till the leaves have attained their full size, as it is at this time too much loss of sap by bleeding. Of course, the winter is the best time for shearing in and cutting off for renewal.

At the last meeting of the Fruit-Growers' Association at Rochester, a majority, I understand, voted in favor of the summer pruning of the vine. This is meant the cutting off the branches of the current season's growth two or three joints at the fruit after it has set, except such branches are wanted to fill up the trellis, or to take the places of older ones to be removed the next spring. I have generally done this (if at all) after the fruit has set; but Mr. Wilcox, of West Bloomfield, (a very good authority,) prefers to do it just as the blossoms begin to open, thinking thereby to insure a more full setting. My own observation, however, does not establish in my mind the propriety of mutilating branches while bearing a full supply of fruit, unless necessary to prevent crowding; but would shorten in all branches that are not well supplied with fruit, unless wanted for the next year's bearing.

*Gorham, Ontario Co., N. Y., Nov., 1858.*

S. B.

#### RAISING MELONS WITHOUT THE USE OF HOT-BEDS.

The first requisite is dry land with a South exposure, or sheltered on the north by fences or buildings. Second, Deep plowing and a thorough pulverization of the soil. I then dig holes four or five feet wide and six feet the other, sufficient to hold two shovels of good hog manure, well packed, made the previous fall and kept sheltered; then put about two inches of soil mixed with one part of leached ashes. Plant your seeds, and I assure you melons and squashes will grow. As a protection from early frosts as well as bugs, I use boxes made as follows: Weather boarding 6 inches wide, 12 of them sawed 14 inches on one edge and 13 on the other, and two of them 15 inches on one edge. 14 on the other, making a square 13 inches on one side and 14 on the bottom on the inside. I then cover with cheap cotton cloth upon the small end. It admits air and protects from frost and bugs. Beveled, these boxes may be packed in small cases

\* The committee award a Prize to each of the following essays.



For squashes, they must be larger, and can be moved in the day time and saved for years.

DAYTON SIGLER.

Get a piece of new or sod land, rather, if you have it, manure it with *well rotted manure* in the fall, and plow it under. In spring, as soon as dry, plow again and turn a furrow at intervals of six or eight feet. These furrows plant your seed, about the 10th of May, in hill, for muskmelons, six feet apart; watermelons, eight or ten feet apart. Use no manure, especially in the spring, about 1860; but when the plants appear, mix about a bushel of fresh cow manure in a barrel of water and the plants in the evening after the rain. This will give them an early start and keep off the bugs. Cultivate them well with hoe and hoe. Let from six to eight of the plants remain, and remove the rest; and if you wish to raise fine and large melons without starting in a hot-bed, I shall be greatly mistaken. I raised the *Wafert Cantaloupe* to weigh 12½ lbs. by this method, and pumpkins to weigh 130 lbs. My favorite melons are *Nutmeg*, *Christiana*, and *Wafert Cantaloupe*, from South Carolina. *Ice Cream* and *Goodwin's Imperial* watermelons.

W. C. HAMPTON.

Victory, Ohio.

#### THE ADVANTAGE OF SEWING MACHINES IN FARMERS' FAMILIES.

I have been in possession of a sewing machine about nine months. It works admirably, and is adapted to the wants of the farmer's family. I look at our time, ease and comfort, and the health, the sewing machine is almost indispensable. I can do as much on my machine in an hour, as I can in four or six hours with the needle. Of stitching and close back-stitching, I can do as much on the machine in one minute as I can with the needle in half an hour with the needle. It does not require much more fixing and basting, as many suppose, than is necessary with the needle. As to ease and comfort, which is equivalent to time, it is not more labor in operating the machine than sewing the same length of time with the needle; besides, in operating the machine, the operator is rather conducive to health than otherwise, while it is well known that hand needle has slain its thousands. Some say it has more than the sword. Then, again, is not one of the greatest blessings bestowed upon us? Why not take advantage of the opportunities offered by the invention of a machine so well adapted to our wants, as well as conducive to our health? I believe it is the most economical of furniture that can grace a homestead.—It saves for a moment on the difference in time and labor saved, as well as expense of a seamstress or of overtaxing tired heads and hands, after nature calls them to be at rest. I know it to be a fact, common among the mothers of families and those who sew much. I have known many of this myself, and would urge any who read these lines to procure a machine as soon as possible.

There is such a variety of machines, both high priced and low priced, they come within the reach of every farmer's family as well as others. It does not

require any very great length of time to learn to operate them, and is so easy and simple that almost any child ten or twelve years of age could be taught quite readily.

PIEBBE W. COOPER.

#### ON THE MANAGEMENT OF CANARIES AND OTHER BIRDS IN THE HOUSE.

In keeping birds in the house, I always use unpainted cages, as I think them more healthy than painted ones as birds peck the paint, which often poisons them. Cages that I have used are made of mahogany, with a draw in the bottom for convenience of cleaning, with china or glass cups on each side to hold the seed and water. There should also be a cup of water large enough for the birds to bathe in, but not large enough to drown them. They cannot be healthy without plenty of clean water, both for bathing and drinking. The cage should be large enough to allow them to fly about and enjoy themselves.

The time for Canaries to pair is about the middle of March, when they should be placed together, each pair in a large breeding-cage. If brought together before, they will fight and sometimes kill each other. If they agree, they will soon begin to feed each other, when they must be supplied with a box two and a half or three inches square, or a basket made for the purpose, hung up in their cage, in which to build their nest, also materials for building. I have found hemp rope cut about an inch long and picked to pieces, and the white hair from a calf's tail to be the material they prefer. They will build and throw out their nests several times; but when they begin to be really in earnest they will work very fast.

When the bird has laid one egg she will begin to sit, and lay an egg every day till she has four; and in two weeks from the time the first egg is laid it will hatch. During the time of setting, the birds must be attended to very carefully, giving them a variety of food, such as egg boiled hard and chopped very fine, with bread, and bread and milk, as well as seed, of which it is best to give them several kinds. The milk should be scalded to prevent their becoming sick during incubation, which frequently happens without it. The white of the egg should not be given the young—only the yolks—as they cannot eat the whites and remain healthy.

The cage should be examined while there are young in it very frequently by lamplight, to ascertain whether there are mites about it, which are small red insects barely perceptible to the naked eye. Unless these mites are kept out of the cage, it is useless to attempt to raise or keep birds. A single drop of sweet oil on the sole of each foot of the female, when she commences sitting will guard against their attacks.

Once a month the birds should have a small pinch of saffron in their drinking water. Great attention must be paid to the cleanliness of the cage. The drawer should be cleaned and sprinkled with fine white sand daily. The cage should be cleaned thoroughly once a week, and well dried before the birds are returned to it, except while the bird is sitting, when it must not be disturbed, except to take out the drawer and replace it when cleaned, covering the bottom with fresh sand.

If it is necessary to handle the birds, it must be done carefully as they are very tender, and will not bear much handling. Great care should be taken not to frighten them. I have known a valuable Canary bird so frightened that he never sung again. Strangers should not go very near the cage, and no one should look into the nest while the bird is sitting, or she may desert it.

We have frequently let them out of their cages, taking care to close all places where they could make their escape. They fly about and alight on heads and shoulders, and sometimes on our hands; and if there are plants in the room they seem to take great delight in flitting about among them. When tired they will return to their cages. It may be necessary to place a piece of apple or something tempting inside of the door of the cage to call him back; but they will soon become so familiar, if allowed to be out often, that they will not need much coaxing to induce them to return.

Ripe fruit in its season, sugar, chickweed, or lettuce, are excellent to keep them in health.—Cattle fish bone and bread or cracker should always be in the cage for them to peck at; but they should never have rich cake. If they have the dumps they will set on the perch with their feathers rough, not taking the trouble to dress their plumage. Put a drop of sweet oil on the sole of each foot and it will cure them. A little scalded milk on some bread will cure the diarrhoea. When moulting they should have less seed, but be supplied with soaked bread, lettuce leaves, fruit, &c., to allay the natural fever.

In winter they must be kept in a warm room, but not very near the fire. In summer the cages should be hung out of doors a part of the day, to give them air, but shaded from the sun. Dew or rain must not fall on them.

I have kept none but Canaries and Goldfinches in cages, as I am not one of those who would deprive our native songsters of their liberty, and have them pine away in cages. \*

*Clarkstown, N. Y., December, 1858.*

#### CHEESE MAKING FROM A SMALL DAIRY.

It is customary for those farmers who have but a small number of cows, and make dairying merely an incidental business, to change from butter to cheese making, during the warmest weather. Although in this way but a few cheeses can be made, it is important that they should be made well. Hence a few hints to beginners—and those of experience too—may not be amiss.

The first care should be to see that the rennet is properly preserved and prepared, as the quality of the cheese depends very much upon the rennet used.

**PREPARING RENNET.**—The calf should be allowed to stand several hours after sucking before being killed. The rennet should be carefully removed, the curd taken out, and skin or stomach turned wrong side out; the specks of dirt removed by *picking* from the skin and curd, if there is any; *but by no means rinse the skin*, as that removes a portion of the mucus in a free state, which is the only active principle of any value contained in the rennet. Put the curd into the skin, add a pint of fine salt, and more if the rennet is a very large one. The whole should be placed in a cloth bag,

and hung up in a cool, dry place till wanted for use. Old rennets are considered better than new as being stronger. When wanted for use, soak the rennet in warm water two or three days, strain the liquor, add as much salt as will dissolve, keep in a cool place. This process must be repeated once or twice before the whole strength will be extracted.

In the manufacture of cheese it is important to have the room and utensils sweet and clean. Next to this comes the necessity of keeping the milk sweet. If the milk or curd becomes "change" or begins to ferment before putting in the press, the cheese will be very likely strong.

The milk, after it has been strained into a tub, should be warmed to a proper temperature which is about 90 Fah., or nearly as warm as will be taken from the cow—by adding a portion of heated milk. If the milk gets too warm the cheese will be hard. The rennet is then added, the milk is stirred, and left till the curd has come. The quantity of rennet depends upon its quality, as well upon the quality and temperature of the milk. It is difficult to determine the exact amount. The richer the milk in cream and cheese, the greater must be the quantity of rennet; therefore more required in summer than in winter. The warmer the milk the less rennet. Experience is the guide in this operation.

The time necessary to produce perfect coagulation is from thirty to sixty minutes. Better for sixty minutes, than to get in too much rennet. It is much better to get in too little than too much rennet; and should the milk not curd within proper time, it requires only an addition of warm rennet to effect a perfect coagulation. As a general thing, the longer it is coming the tenderer the sweeter will be the curd.

When the curd is formed sufficiently, it is broken up quite fine, either by hand or curd breaker, for the purpose, which cuts it into very small pieces. The whey is then separated from the curd by passing through a strainer previously placed in the cheese basket. The curd is then placed in a strong cloth, and well pressed to remove the whey. It is then put in a cool place, and the operation repeated till there is curd enough to make a wheel of the desired size. When the right quantity of curd is obtained, the curd is all broken up very fine, water, heated sufficiently to make the curd soft and warm, when ready for the press. The object of this warming is to make the different curds mix readily, or as it is termed, 'close' well. When 'scalding' is completed, drain off the water as far as possible, and keep the curd broken up fine, and the better to mingle with the salt. Care should be taken not to mash the curd so violently at first as to start the white whey, as that detracts from the richness of the cheese at once.

When the curd has drained sufficiently, add at the rate of one pound to every thirty of curd. After the salt has been thoroughly incorporated, a strainer sufficiently large to cover the whole cheese is placed in the hoop, into which the curd is put. The pressure should be moderate at first, increasing gradually for two or three hours. The cheese is then taken from the press, tub, and a dry cloth put around it. Place it again in the press and subject it to a powerful compression thirty-six hours, turning once or twice

Apply fresh cloths. To protect from the flies, with cotton cloth dipped in melted butter, afterwards grease them thoroughly. They should be turned every day, and the mould, if any, should be removed, occasionally applying a little more butter, until the surface becomes smooth, when to be turned once in two or three days will do.

*Ver., Oxford Co., Me., Nov., 1858.*

FRYE, JR.

### BREAD MAKING.

For making good bread, yeast is a highly impo-  
r-  
ngredient. We mostly use potato yeast,  
is made by grating potatoes and boiling a  
il of hops—say a bowlful of potatoes to two  
of hop water. Boil until it thickens, then  
e tea cup of molasses and a handful of salt.  
cool enough, add yeast to raise it. This,  
vay in a cool place, will keep for a long time.  
yeasts answer the same purpose.

might, get as much flour in a tray as you wish  
ead. Let half the wet you wish be sweet  
Boil it and pour on the flour, incorporate  
spoon, and then take the same quantity of  
ater, stirring the sponge till stiff and thick.  
then be of the right temperature to add the

One tea-cupful will make six loaves of  
In the morning it is made or kneaded up,  
t any more wet, adding a handful of salt.—  
soon rise, and when light, pinch it off care-  
placing each loaf in a pan. Let it stand  
t ruffs up, and then place in a hot oven to  
though not hot enough to burn. One hour  
cient time to bake a good sized loaf. We  
believe, as a learned lady asserted in our  
not long since, that bread, to be good, must  
eaded for hours. We knead bread until it is  
and we are tired, say ten or fifteen minutes,  
loaves. If kneaded too long, it becomes  
id stiff, and does not rise so readily. \*

*ra, 11th mo., 1858.*

### BUTTER MAKING.

There may be many ways to make good butter,  
ere is one way that will never fail. Have  
hing that pertains to it sweet and clean. In  
er, a good, cool, dry cellar, is very essential.  
he milk in pans in the middle of the cellar,  
elf, not too close together, nor admitting, in  
weather, nor indeed at any time, too much  
Pans that are much the largest at the top are  
nd those that hold from four to six quarts are  
ntly large. Invariably skim the milk before  
ppered. It is best to be skimmed as soon as  
hich can be done in a tin cream tub, with a  
id, which will hold as much as you can churn  
ne, and which should be kept on the cellar  
e. The best butter is that when the cream  
ot stand too long before being churned. It  
be churned every other day, at farthest.  
e churn in warm weather be rinsed with  
water, and set in cold water while churning.  
g water should be taken to rinse the churn  
it is cold, and the temperature will admit,  
cream is put in for churning. The best  
we have ever eaten, has been when the up  
wn churn has been used.  
n the butter has sufficiently come, take up in  
or bowl, work out the buttermilk, and then

pour over pure cold water, working it through  
that, pour it off, and add fine salt—an ounce to a  
pound. When this is thoroughly incorporated, set  
it in a cool place, until the morrow, when it should  
be worked with a ladle until the buttermilk is sepa-  
rated, but not until it is greasy, when it is ready  
for packing. Keep the firkin covered with a thick  
cloth, under the lid, while the firkin is being filled,  
is all-sufficient.

Ideen saltpetre, or saltpetre water, on butter,  
highly pernicious. Butter is like many other  
things, whose beauty and sweetness is much  
marred by too much handling. All know we  
can make butter white and of the consistency of  
cream, by beating. Hence to churn too long after  
it has come, to work too much, in water or out of  
water, will make white rancid butter. A word to  
the wise is sufficient. M. S. B.

### DRESSING POULTRY FOR MARKET.

In dressing poultry for market, much care should  
be exercised to keep them from getting bruised, or  
the skin torn, or in any way disfigured. We have  
found that the difference in the modes of dressing,  
often makes a difference of from one to two cents  
a pound; and this, too, when the one lot of fowls  
was as well fattened as the other.

Feed liberally for a few weeks before killing, as  
nearly double the weight will be attained, and  
nearly that difference made in the price, for the  
finishing off food.

**KILLING.**—To keep them from bruising them-  
selves, secure the wings as soon as caught, and tie  
them behind the back. Hang them up by the  
heels and cut the jugular vein, or sever the head  
with a sharp knife, leaving as long a neck as pos-  
sible. They should be kept from food at least ten  
or twelve hours before killing; otherwise any food  
left in the crop sours, and materially injures the  
flesh if kept long before cooking.

**DRESSING.**—Pick them dry. This may be easily  
accomplished by plucking the feathers as soon as  
the fowl is killed. If water is used at all, do it by  
holding the bird by the leg, and letting an assistant  
pour the water through the feathers. We find this  
way preferable to immersing them. The water  
will better permeate the feathers and suitably affect  
the skin. Remove the intestines, and wipe the in-  
side dry. If to be carried a long distance, do not  
wash them at all, except to wash the blood from  
the neck. Draw the skin back on the neck, cut off  
the head, if not already removed, draw the loose  
skin over, tie it tightly, wash off any blood, wiping  
dry. Hang them in a cool place several hours, or  
till thoroughly dry.

**MARKETING.**—If your poultry is to be sent some  
distance, it should be packed in boxes or barrels.—  
In packing, use clean rye straw. Do not use wheat  
or oat straw, if you can avoid it. The packing  
straw should be bright and clean—free from dust  
and dirt. Put in a layer of straw and carcasses  
alternately, using straw sufficient to act as a spring  
to prevent bruising, and pack straw closely under  
the cover. Nail your box tight, mark plainly what  
is in it, and to whom it is sent. A little care of  
the kind above described will greatly increase their  
market value.

FRYE, JR.

*Andover, Me., Nov., 1843.*



# EDITORS TABLE.

## New Advertisements this Month.

Godey's Lady's Book.—L. A. Godey, Philadelphia.  
 The "Little Giant" Corn-Crusher.—Hedges, Free & Co., Cincinnati, Ohio.  
 Fancy Poultry.—C. N. Bement, Poughkeepsie, N. Y.  
 Agricultural Steam Kettle.—Hedges, Free & Co., Cincinnati.  
 Kitchen Mill.—do. do. do.  
 Chinese, or Swan Geese.—C. N. Bement, Poughkeepsie, N. Y.  
 Seeds of Evergreen Trees, &c.—J. M. Thorburn & Co., N. York.  
 Seeds at Wholesale.—do. do. do.

The January number of the GENESEE FARMER for 1859, kind reader, is before you. We question, if a more interesting number could be found in the whole twenty-eight previous volumes. It is full of the experience and suggestions of practical farmers and fruit-growers. It contains fifty Prize Essays on important subjects, selected as the best of several hundred written for its pages, all of which are good. We think no one interested in the cultivation of the soil can read these essays without obtaining some suggestions of more value than the cost of the paper for a year.

Several illustrations and a number of editorial articles are crowded out; but we are sure that no one will regret this, as the space is much better occupied. The Prize Essays have also compelled us to omit a review of the Cattle and Grain Markets, and our usual Horticultural and Ladies Departments. In some respects, therefore, the present number is not a fair specimen of what we intend to make the GENESEE FARMER for 1859. Such as it is, however, we send it forth to its thousands of readers and friends, wishing them each and all a happy New Year.

OUR JANUARY PREMIUMS.—On another page will be found a list of Cash Premiums to be awarded for the greatest number of subscribers sent in on or before the fifteenth day of January. Very few persons compete for these premiums, and a small list will secure one of the largest, while they are so numerous that no one who tries can fail of taking a Prize.

There is yet plenty of time to secure one of these twenty cash Premiums. Speak to your neighbors at once,—show them a copy of the paper, and request them to subscribe. *In most cases they will cheerfully do so.* The Farmer is so cheap that all can afford to take it. All that is wanted to secure a good club in every town, is some one who will undertake to receive and forward subscriptions. We have thousands of such agents—true friends of rural improvement—but there is room for thousands more. If there is no agent in your town, will not you see what you can do for us? We want every reader of the *Genesee Farmer*, who deems it worthy of patronage, to present its claims to their neighbors, and urge them to subscribe. We shall be happy to send you some show-bills and specimen copies, if you can use them to advantage.

CORN FOR THE WEST.—Our esteemed correspondent, S. PERRINGTON, of Sterling, Ill., says he has been experimenting with different varieties of corn, and is yet undecided which is best adapted to the soil and climate of the west. He thinks the *Webster* corn, of Massachusetts variety of great promise, especially for unfavorable seasons. It ripens in ninety days. The *King Phillip* thinks is less worthy of attention than any other variety he has tested. We should be glad if others would give us their experience on this interesting subject.

THE WHEAT CROP IN ENGLAND.—HEWITT DAVIS states that the wheat crop in England is greatly on the increase. He says: "Formerly the return of wheat rarely reached 48 bushels per acre, and 40 bushels were considered a great crop; but last year, (1857,) instances of 48 bushels were comparatively common all over England, and as much as 64 and 72 bushels per acre, and even more, were publicly stated to have been grown in Kent and Essex." What say the readers of the *Genesee Farmer* to this?

THE RURAL ANNUAL AND HORTICULTURAL DIRECTOR for 1859 has been unexpectedly delayed. All of it will now be filled as rapidly as possible. It is a handsome volume and should have an extensive circulation. Every reader of the *Genesee Farmer* should have a copy. The *Farmer* and *Annual* are sent in clubs for fifty copies of the two. Single copies, 25 cents each. We prepare postage, in all cases, on the *Rural Annual*, without charge.

GRASS LAND IMPROVES THE SOIL.—An experienced respondent of the *Genesee Farmer* writes:

"One of the greatest advantages of stock growing is the continual improvement of the soil. Lands in some instances occasionally supplied with powdered gypsum, will deteriorate in value, but continue improving, unless products are all removed. I have seen the whole of cultivated lands doubled in quantity and value of products, in Steuben Co., N. Y., by easy and profitable management in pasture."

A FINE PEAR.—MR. GEO. MAY presented, at an exhibition of the Horticultural Society in Boston, a *Duch Angoleme* pear measuring 13½ inches in length and 2½ inches around, and weighing 24½ ounces. The records of the Society show that one weighing 24½ ounces, and one of 27 ounces, have heretofore been exhibited. The first mentioned as raised in New Jersey, weighing 35 ounces. If as good as large, we can not have too many of them.

PRIZE ESSAYS.—We hope to be able to publish a good list of subjects for Prize Essays in the February number, and hope our readers will name such a list as they desire discussed. Our object in offering these Prize Essays is to call out the opinions of our readers; and if there is anything in those published that does not accord with our experience, we hope they will not hesitate to give us views.

FARM-BOOK.—Your committee, though they do not award the prize to the following essay, would record its publication, and urge farmers to take the highest record their experience in the *Genesee Farmer*.

"The best plan of a book in which the farmer records his practice and experience, in the plainest, simplest, and concise manner"—and by which said practice and experience will result in the "greatest good to the greatest number," is the *Genesee Farmer*.—D. A. J.

**RICH MILK—WHO CAN BEAT IT?**—W. H. ROBINSON, of Dequoit, informs us that he has a three-year-old heifer, which will come in about the 1st of next April. He now gives (Dec. 10) four quarts of milk per day. Three quarts of this milk were churned, and produced 10.10 oz. of butter, or 4 3/4 oz. from one quart of milk. The other trial was made the next week, when 10 quarts of milk produced 3 lbs. of butter, or 4 4-5 oz. butter from a quart of milk. This, we believe, is the largest yield of butter from a given quantity of milk on record. Can any of our readers of the *Genesee Farmer* beat this?

Dr. BUCKMINSTER, of the *Massachusetts Ploughman*, states that four quarts of milk from his Devon heifers give one pound of butter; Mr. PRENTICE, of Albany, N. Y., states, in the *Country Gentleman*, that his Ayrshires produce one pound of butter from 6 quarts of milk; and Mr. NORRIS, of Farmington, Ct., has Alderneys that beat this somewhat. The general average, from good dairies, is about one pound of butter from fifteen quarts of milk.

The heifer of Mr. ROBINSON is part Devon, Durham, and Ayrshire. She was fed on clover hay, and had in addition about half a bushel of potatoes per day. Mr. R. thinks that other roots will furnish so much butter in the winter as potatoes. The butter produced by this heifer is as good and of as good flavor as can be made at any season of the year.

**TOBACCO.**—In reply to our offer for a Prize for the best "on the best and earliest mode of raising tobacco plants," a correspondent facetiously remarks:

Attach a good team to an eagle plow, and raise them by the mold-board of said plow, and turn them under as soon as they proceed across the field. This should be done early in the morning. I consider this the earliest and best mode of raising tobacco plants."

**WHEAT IN VERMONT.**—A correspondent in Windsor County, Vt., says: "The idea that manure makes wheat heavy, is the offspring of laziness. We often raise here between forty and fifty bushels of spring and winter wheat per acre, while the rich farms of the west, without manure, scarcely ever exceed twenty bushels."

**BLACK KNOT.**—W. W., Snackwine, Ill., writes: "The black knot is often seen on the wild plum in this city, though it is not general. I have never known of the wild plum cultivated. The tame plum is a sure sign. I have seen but one case of the black knot on a tame plum."

**ORGANIC PEARS.**—At the "Crystal Palace Horticultural Exhibition" in England, the first prize "for the best bred varieties" of the pear was awarded to the *White Renette*, or *Virgalieu*; the second best to the *Gratioli*.

The annual meeting of the Western New York Fruit Growers Society will be held in this city, January 5th.

**Inquiries and Answers.**

**BLACK-LEG IN CALVES.**—I am desirous of obtaining information in relation to this disease of calves or young cows, there having been several cases of the disease in my vicinity. We call it the bloody murrain or black-leg, and the animal dies in a few hours after the disease first shows itself. The animal loses the uses of his limbs, froths at the mouth, and dies. If his hide is taken off after death, the skin appears to be mortified, with a bad smell. If you have any of your numerous correspondents can give a remedy we should like to see it in your valuable paper.

**MCCORT MCDOLE.**—*Madison Co., N. Y.*

**FENCE POSTS—TRAINING CATTLE.**—I wish to tax your columns to make inquiry if any of your numerous correspondents or readers are able to answer the question, whether or not fence posts will last essentially longer when set top end downwards? If it is a truth, as I have heard it asserted, that they will last from a fourth to a third longer, it is certainly an important fact, and I should be much obliged by correct information in the matter, through your columns or otherwise.

I would also say to Mr. JNO. SANFIELD, of Ill., that if he has a system of training or conquering animals, which he esteems valuable, and would invite his fellowmen to adopt, I would suggest that he gives us a little more minute description of his process. E. MORTON.—*Berrian Co., Mich.*

**DRAINING TILES.**—Can some one tell me, through your columns, the best and cheapest mode of making draining tiles? W. F. HERRON.—*Burtholomew Co., Ind.*

**ADVERTISEMENTS,**

To secure insertion in the FARMER, must be received as early as the 10th of the previous month, and be of such a character as to be of interest to farmers. TERMS—Two Dollars for every hundred words, each insertion, PAYABLE IN ADVANCE.

**AGRICULTURAL STEAM KETTLE.**

SAVE YOUR MONEY, GRAIN, LABOR, TIME, AND FUEL.

THE undersigned manufacture a cauldron steamer, heater, or cooker, which for simplicity, safety, and general adaptability, has no equal. This consists of a cast iron cauldron arranged with reference to the greatest economy of heat and fuel, and calculated for setting in brick work, in a manner so simple as to be understood by farmers or any unmechanical person. For heating water for hog slaughtering, family washing, tanners' or dyers' vats, hotel laundries, or wherever rapid, convenient and economical boiling is desirable, the advantages of this useful device are conspicuously manifested. The steam is rapidly generated in the cauldron and conveyed through vulcanized pipes into boxes, tanks, barrels, tubs, or whatever convenient vessels best suit the operator, or the several processes of heating, steaming and cooking may proceed simultaneously with scarcely more fuel than is required for a cook stove. The possession of one by the farmer enables him to cook ground feed, pumpkins, or potatoes, or steam his chopped stalks, straw, or hay for his stock, heat water for the family washing, and fast enough if need be to scald three hundred hogs per day.

Prices for the three sizes respectively, \$35, \$45, and \$60. Catalogues with description, together with full treatise on the sorghum cane, will be forwarded on receipt of three postage stamps to

WEDGES & CO.,

Jan. 1859.—It. Cincinnati, Ohio.

**SEEDS OF EVERGREEN, &c., TREES.**

WE are in receipt of a few of the leading sorts of TREE SEEDS, in advance of our annual assortment, embracing nearly 300 sorts, among which we can furnish immediately—

Black Austrian Pine Seed, at.....	\$3.00 per lb.
Sea Side do ".....	1 00 "
Scotch Fir do ".....	1 50 "
European Silver Fir ".....	1 50 "
Laburnum ".....	75 "
European Larch ".....	2 00 "
American Arbor Vitae ".....	3 00 "
Honey Locust ".....	75 "
Yellow do ".....	75 "
American Elm ".....	2 00 "
Ailanthus ".....	2 00 "
Pitch Pine ".....	3 00 "
Black Ash ".....	2 00 "
Virgilia Lutea (very scarce).....	2 00 per oz.

ALSO,

Fresh Apple Seeds, 50 ets. per quart,	\$10 per bushel.
Fresh Pear Seeds,	\$2.50 per lb.
Apricot Pits, 75 ets	
Black Mazzard Cherry Pits, 50 ets. per quart.	
Mahaleb do do 75 "	

To be successful in germinating Pine, Larch, Fir, and most fruit seeds, it is deemed important to sow immediately in boxes, in layers alternated with sand or light soil, and kept in a cool cellar during the winter, protected from mice and rats, and transferred to the open ground in spring.

J. M. THORBURN & CO.,

Jan. 1859.—It. Seed Warehouse, 15 John st., New York.

**RUSSIA OR BASS MATTS.**—Selected expressly for budding, R and tying. GUNNY BAGS, TWINES, &c., suitable for Nursery purposes, for sale in lots to suit, by

D. W. MANWARING, Importer,

August, 1858.—Jy\* 248 Front Street, New York.

1859.

**CODEY'S LADY'S BOOK**

IN THE ASCENDANT.

**GREAT LITERARY AND PICTORIAL YEAR.**  
**THE TWENTY-NINTH YEAR.**

**Volumes Fifty-Eight and Fifty-Nine for this Year**  
**will contain**

1200 Pages of Reading Matter, 24 Pages of Music, 12 Colored Steel Plates, containing at least 50 figures, 14 Steel Engravings, 720 Wood Engravings, 780 Articles by the best Authors of America. And all these will be given in 1859, at prices for which see

**OUR EXTREMELY LOW CLUB RATES.**

**THE OLDEST, THE BEST AND THE CHEAPEST MAGAZINE IN AMERICA.**

**USEFUL, ORNAMENTAL, AND INSTRUCTIVE.**

We have now several new departments. Our *MUSIC*, of which Three Dollars' worth is given every year. *GARDENING FOR THE LADIES, OUR HEALTH DEPARTMENT, HOW TO MAKE CHEAP FURNITURE*, with illustrations, *THE HOUSEWIFE: or, How to Economize and Conduct a House, THE ART OF ORNAMENTAL HAIR-WORK*, with Engravings, *THE HAIR—How to Promote, Preserve, and keep Lustrant; and THE TEETH—How to Preserve and Beautify*. Our Literary Department is the strongest in the country.

**SOMETHING ENTIRELY NEW.**

During the year will be given a number of engravings of articles that ladies can make up for *Fancy Fairs*, with descriptions how to make them.

The usual contents of the Lady's Book are—  
 How to Dress with Taste. Children's Clothes—How to cut and contrive them. Patchwork. The Dressmaker and The Milliner. Drawing in all its variety, useful to the beginner and the proficient.

Fashions from the establishment of the celebrated "Brodie" will be in every number.

Point, Brussels, and Venetian Lace of every variety.  
**ONE HUNDRED PAGES OF READING** will be given monthly.

**CODEY'S SPLENDID ENGRAVINGS ON STEEL.**  
 LONDON, PARIS, and PHILADELPHIA Fashions—  
*Godley's Four, Five, and Six-figure Colored Fashions.*

**EMBROIDERY PATTERNS. MODEL COTTAGES.**—We still continue the publication of these beautiful designs.

**DRESS-MAKING.**—With Diagrams to cut by.  
**DRESS PATTERNS.**—Infants' and Children's Dresses, with descriptions how to make them.

All kinds of **CROCHET and NETTING** work.  
**THE NURSE AND THE NURSERY.**—Very excellent articles upon these subjects will often be given.

**Godley's Invaluable Receipts upon Every Subject.**

In the various numbers for 1859 will be found the newest designs for

*Window Curtains, Broderie Anglaise, Slippers, Bonnets, Caps, Cloaks, Evening-Dresses, Fancy Articles, Head-Dresses, Hair-Dressing, Robes de Chamber, Bride's Dresses, Carriage-Dresses, Wreaths, Mantillas, Walking-Dresses, Riding Habits and Morning-Dresses.*

**CROCHET and NETTING WORK IN COLORS. SLIPPERS IN COLORS.**

Send in your orders soon, as we expect our list for 1859 will reach 150,000 copies. The best plan of subscribing is to send your money direct to the publisher. Those who send large amounts had better send drafts, but notes will answer if drafts cannot be procured.

**TERMS, CASH IN ADVANCE.**

One copy one year, \$3. Two copies one year, \$5. Three copies one year, \$6.

Five copies one year, and an extra copy to the person sending the club, making six copies, \$10.

Eight copies one year, and an extra copy to the person sending the club, making nine copies, \$15.

Eleven copies one year, and an extra copy to the person sending the club, making twelve copies, \$20.

**☞ The above Terms cannot be deviated from, no matter how many are ordered.**

And the only magazine that can be introduced into any of the above clubs is Arthur's Home Magazine. One or more of that work can be included in a club in the place of the Lady's Book, if preferred.

**SPECIAL CLUBBING WITH OTHER MAGAZINES.**

Godley's Lady's Book and Arthur's Home Magazine, both one year for \$3.50.

Godley's Lady's Book and Harper's Magazine, both one year for \$4.50.

Godley's Lady's Book, Harper's Magazine, and Arthur's Home Magazine, one year, 6.00.

The above is the only way we can club with Harper's Magazine. The money must all be sent at one time for any of the Club.

Subscribers in the British Provinces, who send for clubs, must remit 36 cents extra on every subscriber, to pay the America postage to the lines. Address,

**L. A. GODEY,**  
 jan—lt 323 Chestnut Street, Philadelphia, Pa.

**THE "LITTLE GIANT" CORN-CRUSHER.**

**T**HE advantages to farmers and feeders from possession of this compact portable Plantation Mill, with which they can crush corn and cobs for stock, or prepare coarse grists and hominy for corn and other grains, for family use or feeding, no one well informed can question. The "Little Giant" is a cast iron mill of this class, very efficient, simple, and durable. It is made in such a manner as to be readily set up and regulated by any sensible farmer, and once arranged may be safely entrusted to a boy. Being constructed with due regard to mechanical principles, performs its work rapidly and in a superior manner. It is not favorably known in nearly every State of the Union, but it is recommended best, perhaps, by the fact of its having outlived numerous imitations which worthless persons have endeavored to place in places where its popularity was established. It is so complete, ready to stake to the ground and hitch a team to, follows: Two coned one-horse mill, capable of grinding six eight bushels feed per hour, \$25; three coned mill, very sto will grind fifteen to twenty bushels, \$50. We will mail to a one sending us three postage stamps, our catalogue, containing full consideration of the economy of feeding ground, unground raw and cooked grain; also embodying a treatise on the sugar cane and manual of its manufacture.

**HEDGES, FREE & CO.,**  
 Cincinnati, Ohio

Jan. 1859.

**FANCY POULTRY.**

**A FEW** choice specimens of the following varieties of Fowls may be had if applied for soon:

Golden Spangled Hamburgs,—Price, 1 cock and two hens, \$8	
Silver " " " " " " " " " "	6
Golden " tufted " " " " " " " "	7
White Faced Black Spanish, " " " " " " " "	10
Dominique, large and fine, " " " " " " " "	5
Golden Spangled Sebright Bantams, " " " " " " " "	7
Silver " " " " " " " " " "	8
Black African, rose comb, " " " " " " " "	7
White, rose comb and smooth-legged, " " " " " " " "	6

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THE

# GENESEE FARMER

FOR 1859.

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December, 1858.

JOSEPH HARRIS,  
ROOSTER, N. Y.







THE  
Genesee Farmer

PRACTICAL AND SCIENTIFIC FARMERS OWN PAPER

OL. XX, SECOND SERIES.

ROCHESTER, N. Y., FEBRUARY, 1859.

No. 2.

### ATTEND TO THE MANURE HEAP.

TAKE care of the manures and the crops will take care of themselves, is as true and as well worthy of being iterated and reiterated as Poor Richard's familiar proverb, "Take care of the pennies and the pounds will take care of themselves." More manure and *better*, should be the watchword of every farmer.

There is a very general impression, that passing food through the body of an animal increases its value as manure. Now, if we are to understand this that it adds something to it that it did not possess before, it is a mistake. A given weight of the liquid and solid excrements is worth more as manure than the same weight of the food, at equal degrees of dryness, consumed by the animals from which they are derived. But it must be remembered that one hundred pounds of dry food eaten by an animal furnishes only forty pounds of dry matter in the liquid and solid excrements. In other words, there is a loss in feeding, of sixty per cent. This loss consists principally of carbon—an element of little value as manure. This forty pounds of dry matter is worth as much for manure, nearly so, (there being a little loss of nitrogen, phosphates, &c.,) as the one hundred pounds of dry food; and of course one hundred pounds of such manure would be worth much more than one hundred pounds of the food from which it was derived. It is this fact that has led to the impression that feeding food to animals increases its value as manure. The liquid and solid excrements of animals lying on clover, for instance, would be a more appropriate food of wheat and other cereals than the clover itself; and if carefully preserved, would furnish very nearly as great an amount of those elements most required by the wheat.

It can not be too often repeated that the value of the manure depends, primarily, on the composition of the food eaten by the animals. "You can not make a whistle out of a pig's tail," neither can you make good manure out of an old straw stack.

You may rot it down, or feed it to animals; but it is straw still. "But can not you make it valuable by mixing other manures with it?" Certainly. If you use it for absorbing the liquid of animals living on better food, you make the heap of manure more valuable,—and the practice is a good one, and much to be commended. But the straw is straw still. If you have a purse of pennies, and you mix with them a quantity of gold dollars, you make the purse more valuable; but the gold dollars do not add to the intrinsic value of the pennies. It may be more convenient to carry them mixed together; but if the gold dollars were in one pocket and the pennies in another, you would have just as much money as though you had them all in one pocket. So it may be more convenient to mix the good manure with the poor. The latter may absorb and retain those substances which would otherwise drain away or fly off; but the mixture contains no more fertilizing elements, and would be no more valuable as manure, than if the good and the poor manure had been carefully preserved and applied separately. Unless the substances from which the manures are derived contain the necessary elements, it is vain to expect to make a valuable manure from them by any known process of feeding or fermentation.

The manure from poultry is more valuable than that from hogs, while the latter is generally more valuable than that from horses or from cattle and sheep; and many persons seem to think that different animals have different powers which, in some mysterious way, affect the quality of the manure. This is not the case—at least to any appreciable extent. The droppings of poultry are the most valuable from the fact that fowls live on richer food, and the liquids and solids are voided together. So of hogs and other animals. If the food were the same, there would be little if any difference in the value of the manure. One hundred pounds of hay, eaten by a horse, an ox, or a sheep, would furnish manure, differing perhaps in quantity, but of pre-

cisely the same absolute value. To have good manure, then, we must feed the animals on food containing a sufficient amount of fertilizing ingredients. We are anxious, at the risk of being tedious, to impress this fact on the minds of our readers.

In feeding animals, we should not only consider what will produce the most meat, but also what will furnish the richest manure. For instance, Indian corn may fatten an animal as rapidly as oil-cake, but the manure from oil-cake-fed animals is much more valuable than from those fed on corn. Ordinary meadow hay may fatten sheep as well as clover hay (though we somewhat doubt it), but the manure from the former is much inferior to that from the latter. Oil-cake, peas, beans and red-clover are among the best foods that can be used, not only for their nutritious qualities, but as also furnishing rich manure.

Another point should not be overlooked. It should be our aim to grow those plants as food for stock which impoverish the soil but little, and clover, peas, beans and turnips are, on this account, among the best.

Having got the manure, our next object must be to prevent its valuable elements from being washed away, or from being dissipated by too rapid fermentation. On most farms, more loss is sustained from the former than from the latter. On this account, the water from the building should never be allowed to run into the manure-yard. All that falls on the heap itself, can be absorbed by the judicious use of straw and waste matters. But as more water falls at some seasons of the year than is required by the manure, and not enough at other times, it would be a great advantage to have a tank into which the drainage could run when the water is in excess, and from which it could be pumped back when it is deficient. Few people have any idea of the value and convenience of a good manure tank. Water has the power of retaining a large quantity of ammonia, and the judicious use of the drainage in the tank will prevent much loss of this most valuable ingredient of manure.

Some good farmers in this vicinity are abandoning the practice of plowing in clover for wheat. They break up the sod ground for corn; clean the land as much as possible with this crop; then sow barley, followed by wheat the same fall. And they find, of course, much benefit from manuring the wheat, either by plowing in the manure before sowing, or applying it as a top-dressing. Such a practice allows the manure to remain in the barn-yard during the summer, and, by proper management, it can be reduced to "spit manure," with

little or no loss of ammonia. Such manure, so fermented that it can be cut with a spade, will not weigh more than half as much as if it had been used in the fresh, unfermented state, and, of course, the cost of hauling, spreading, &c., would be reduced one-half. Such manure, too, acts quicker, and would afford the wheat plants abundance of nourishment in the fall, and give them a good start, which is a very important consideration.

Manure applied to spring crops should be thoroughly decomposed, or it has little immediate effect; and if the weather proves dry and hot, unfermented manure is as often injurious as useful. We are well aware that there is among practical farmers, as well as among scientific writers, much diversity of opinion on this point. If we plow in fresh manure, all the food of plants it contains is retained in the soil, and will ultimately exert its maximum effect. On the other hand, as manure is usually treated, there is great loss from rapid and injurious fermentation and more especially from leaching. *But this loss can be avoided.* Before manure can be useful to any crop, it must be thoroughly decomposed—either in the heap or in the soil. Plants can not live on organized, or partially organized, matter. It is their function to convert the crude, inorganic matter of earth and air into organized matter, capable of supporting animal life. Plants can no more live on organized matter, than animals can live on the crude alkalies, acids and gases of which plants are composed.

Manures, to act immediately, therefore, must be well rotted—and in this case, as in all others "time is money." The relative advantages of applying manure to wheat in the fall, or to spring crops, involve points which we cannot now consider. During the summer, fermentation proceeds rapidly, and it is easy to get manure well rotted for fall use; but it is difficult to get manure made in winter sufficiently decomposed for immediate application to spring crops.

The four principal agents in fermentation, are light, heat, air, and moisture. Other things being equal, those substances which contain the most nitrogen ferment the easiest. On this account, good manure will rot sooner than poor. Compression by excluding the air, retards fermentation; and an excess of water, from the same cause, has the same effect. If the heap was perfectly dry, no fermentation would take place. This, however, never happens in practice; but the heap is often too dry and then the manure "fire fangs," with great loss of ammonia. The reason heat is evolved during fermentation, is owing to the oxygen of the air

uniting with the carbon and hydrogen of the manure, forming carbonic acid and water—a given quantity of carbon and hydrogen giving out just as much heat as though burned in a stove. This nascent carbonic acid has a beneficial effect on many of the ingredients of the manure, rendering them more soluble.

The principal object in preserving manures, should be to let the heap ferment slowly—not so rapidly as to drive off the ammonia. To accomplish this, the hog and cow manure, which ferment with difficulty, should be mixed with the horse and sheep manure, which have, when unmixed in a loose heap, a tendency to enter into rapid and injurious fermentation. The heap, too, should be kept compact, by allowing sheep, hogs and cattle to trample it. It must also be kept moist, but not too wet. To provide the necessary moisture at all times, it is of great advantage to have a good tank for the drainage. The liquid in the tank should be kept saturated with plaster (sulphate of lime), which, when in solution, will convert the volatile carbonate of ammonia into the fixed salt, sulphate of ammonia, and thus prevent loss. This effect will be produced not only in the tank, but, when the sulphated liquid is pumped on to the heap, the carbonate of ammonia in the heap also will be converted into a sulphate, and retained.

On every farm there is much refuse matter, which, when decomposed, will not only make a good manure, but will also help to absorb the liquid which would otherwise drain off and be lost. Every thing of this kind should be added to the heap.

#### BRINGING SEED WHEAT FROM THE SOUTH.

SINCE the advent of the midge, or weevil, the attention of farmers has been directed with increased interest to all means which in anywise tend to promote the early maturity of the wheat crop. It is the opinion of many intelligent, observing wheat growers, that if they could get the grain to ripen from five to ten days earlier, the midge would do it little, if any, harm. It is owing to its early ripening, that the Mediterranean wheat is so much less liable to injury from the midge than better but later varieties. If a variety of white wheat, which yields as well, and affords as good flour, as the Soule's, and which ripens as early as the Mediterranean, could be obtained, it would be worth thousands of dollars to the farmers of Western New York alone. The experiments which have been made in bringing seed wheat from the South, so far as we have seen and heard, are very encour-

aging. But in this case, it is necessary to bring the wheat every year from the South. Its early ripening is not owing to any inherent quality in the variety, but rather to the fact that all wheat ripens earlier at the South; and when it is brought North, it retains this quality the first season—or, rather, it has a *tendency* to ripen at the same period as it did where it was grown. Mr. WORTHINGTON, of Maryland, the able editor of the *American Farmer*, informs us that he has been in the habit of bringing seed wheat from the more southern States for some years, and he finds that it matures earlier. The only danger to be apprehended is that it may not be quite as hardy, and the severe winters at the North might be more likely to injure it. But we have heard of no complaints on this point.

Many persons doubt whether wheat brought from the South would ripen earlier, or even as early, as that grown farther north, and point to the fact that corn brought from the South-west does not ripen as early as that grown here. Again, corn brought from the North—from Vermont or Canada East—ripens earlier here, for one or two seasons, than when we plant that which has been raised here for some years, though of the same variety. Again, it is said that corn raised on high hills will ripen earlier when planted in the valleys, than that raised in the valleys.

These facts do not militate against the idea that wheat brought from the South will ripen earlier. It is true corn brought from the South ripens later. But corn does not ripen as early in the South as at the North, while wheat ripens much earlier. So that if the seed retains a tendency to ripen at the same time as it did where grown, the corn, when planted at the North, should ripen later than the same variety grown here, while the wheat should ripen earlier. Corn at the North does not produce as much stalk as farther south, and it matures earlier, and when it is brought South it retains more or less of this character for some years.

The principle is the same in all these cases. It is further illustrated by the effect of planting, in England, sun-flower seed grown in this country. The sun-flower matures its seed earlier and better in the dry, hot climate of America, than under the weeping skies of the British Isles; and when sun-flower seed grown here is planted in England, more and better seed is obtained the first season. On the other hand, Windsor beans succeed better in England than in this country; and when we plant seed raised there we can frequently obtain a fair crop, but if we plant seed grown here it usually

fails to produce a crop, though we get an abundance of haulm.

This subject is one of great interest to farmers and gardeners, and we shall be thankful for any facts which corroborate or militate against the principle which we have endeavored to illustrate.

#### HOEING WHEAT IN THE SPRING.

In a previous article, we have alluded to the advantages of bringing seed wheat from the South, for the purpose of getting the wheat so early that it may escape the attacks of the midge. Something can be done in this way; but we must also endeavor to cultivate the soil, so as to enable it to force the wheat forward. We must make it dryer, and warmer, and richer—at least richer in the *appropriate food of wheat*, i. e. *richer in ammonia, without much carbonaceous matter.*

Underdraining not only removes injurious, stagnant water, but it also makes the soil warmer, and, consequently, plants growing on it ripen earlier. The midge will force farmers to avail themselves of this fundamental means of improving their farms.

But we do not now intend to give our views on the best method of growing wheat so as to avoid the midge, but rather to ask the experience of our readers in regard to the effect of hoeing wheat in accelerating or retarding its early maturity.

We have often seen wheat hoed in England, and always with decided benefit; but we cannot say whether it favored the ripening process or not.

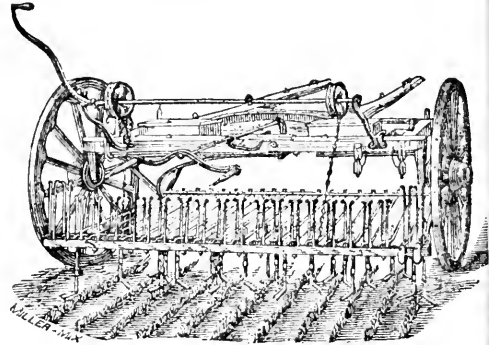
MORRIS'S *Cyclopedia of Agriculture* (one of the latest and best English authorities) says: "All drilled wheat should be hoed in spring, both for the purpose of loosening the surface and cutting up weeds; it will always pay itself, either by an increased crop or by saving in the after-cleaning of the land, and often it will make all the difference between a very good and a very bad crop."

There is one difficulty in hoeing wheat here which is not met with in England. Our springs are late, and the wheat begins to grow rapidly before the ground is sufficiently dry to hoe. Still, some farmers have adopted the practice here on a small scale, and, we believe, with very encouraging results. Those, too, who have harrowed their wheat in the spring, have found it beneficial.

Unless the land is very hard and foul, the Dutch-hoe is the best for hoeing wheat. When the drills are twelve inches apart, wheat can be hoed by hand for about seventy-five cents an acre—and we know of no cheaper method of eradicating red-root and other noxious weeds.

In England, a machine has been in use for some

years for hoeing wheat, and, at the suggestion of a correspondent, we annex a cut of it. It is drawn



GARRETT'S PATENT HORSE-HOE.

by one horse, and will hoe ten acres a day. When the land is free from stones, and not too hard, it makes excellent work. It is made to correspond with the drill used for sowing the wheat. The hoes themselves are at a fixed distance apart, but the set of hoes are fixed to a movable framework, which can be easily moved to correspond with any aberration of the drill. A man with a quick eye and a steady hand can guide it so as rarely to cut up any of the wheat, especially if it has been drilled with proper care.

If our farmers will try the effect of hoeing wheat, and the result is beneficial, some of our intelligent mechanics will soon construct a machine which will do the work well, and at a cheap rate.

#### CORN AS FOOD FOR THE MILLION.

FRIEND HARRIS:—I have been absent from home seven months, and have not seen a number of the *Genesee Farmer* between May and December. In the last named issue there is an interesting article on Indian corn, which being a staple of great value, and of almost universal production and consumption, in this country, the subject will bear further discussion.

You remark: "The principal injury corn is subject to, arises from the quantity of water it contains when ground or shipped. The *Express* makes itself merry over the recommendation of our friend Dr. LEE, in the *Patent Office Report*: 'When farmers sell corn soon after it is ripe, there is considerable gain in not keeping it long to shrink and dry in weight.' It thinks the practical inference to be drawn from this recommendation of the Doctor, is 'obviously the short-sighted policy of exporting water to this country.'"

The youth who said his "father's horse could draw an inference, but he could not," was a fair match for the writer in the *Mark Lane Express* who infers that when an American farmer sells corn it must be for exportation to England!

Water plays an important part in all vegetable and animal products; and Dr. LEE wished to let corn-growers know that ripe corn contains usually about 20 per cent. of it, and will shrink and lose weight if long kept in a dry place. The policy of

selling or keeping any staple, is a matter with which its exportation has nothing to do. It is the business of the purchaser of corn for foreign consumption to see that it is sufficiently dry to keep sound during a sea voyage, and is properly protected from dampness in its passage from one place to another. Neglect in these two particulars causes all the injury that corn, or corn meal, ever sustains in its shipment to foreign countries. The fault is in commercial men who do not understand their business, not in farmers, who generally sell their grain in a sound condition.

I repeat, it is not enough to dry corn meal or corn perfectly, and then expose it to all the changes of atmospheric humidity again, to have it keep well in a common granary at home, and much less in a hot ship's hold. If any corn-dealer doubts our knowledge on this point, let him dry in a kiln or otherwise 1,000 bushels of this grain as much as he pleases short of charring it, and then put it up in a square bin as deep as it is long and wide, and he will find that his shelled corn will imbibe both moisture and oxygen enough to heat and spoil before the solar heat of one summer is past. Masses of corn have to be often turned over to cool, in our climate; and I am surprised that a paper so old and well-informed as the London *Mark Lane Express* should not know that dampness can not be kept out of maize and its meal unless confined in tight barrels and impervious bags, after it has been thoroughly dried. Is it unreasonable to say and believe, that the same damp atmosphere which makes a large bin of corn moist, and heat, before it is stove-dried, will restore moisture to this porous grain, after it has been dried once, or ten times, if exposed to the same atmosphere in which it before existed? A thousand times has direct experiment proved that to expel moisture from wood or grain is not to prevent water from re-entering into their pores again, when subjected to its influence. Properly dried, and hermetically sealed, grain will keep without change in any climate for indefinite ages. In such a condition, both water and oxygen are wholly excluded.

As hay as well as grain often gets musty and damaged, I will venture to state briefly the science of the natural phenomenon.

In cold weather, damp corn or hay never becomes musty, simply because mould, or the parasitic plants that form the dust and must and rust peculiar to gramineous and cereal grasses and their seeds, do not vegetate, unless artificial heat (so to speak) is generated by chemical action, as is seen in all fermentation. The heat of a fermenting mass of horse-dung will grow a large crop of many cryptogamic plants in winter, as may now be seen at my stables. But what causes this heat in fermenting manure? What is the fermentation of a mow of damp hay, or of damp corn? It is an act of spontaneous combustion, in which oxygen combines chemically with carbon, giving rise to carbonic acid, as is seen in beer tubs, and rendering heat that was before insensible or latent, sensible and active as a chemical agent. Without that freedom of motion in the particles of an organized body that moisture confers, this spontaneous combustion will not take place; and, therefore, no fermentation or injury is witnessed.

Like smut in the heads of wheat, on ears of corn

and their stalks, rust, mildew, and other fungi, the dust in hay, and must in grain, meal, or flour, are only a little less poisonous than ergot in rye, known as "horned rye." Hence, to put up new hay in a barn or stack so damp from its natural juices, or rain or dew, as to heat and sweat, is to form a hot-bed for the growth of a crop of poisonous plants at the expense of nutritive substances in the stems and leaves of half-cured grasses. Does the rust on ripening wheat rob the young seeds of their nutriment? Every adult reader knows that the harvest is often wholly blighted by this parasite, which appropriates to itself the organized elements that otherwise would form grain. In the same way, damp hay and grain in a barn may be devoured by millions of microscopic plants so far as to diminish their value one-half or more.

Warmth and humidity generated as I have endeavored to explain, are the forces which most favor the growth of mold, mildew, and of all cellular plants of a similar character. It should be remarked that in all vegetable combustion or fermentation, water is one of the products; so that there is a self-sustaining humidity present in spoiling hay, grain, or meat, after chemical action has once commenced. But keep all moisture away from well-dried meat, fruit, hay, grain, meal, and flour, and they will never begin to spoil. A piece of soft wood, like old field pine or basswood, will rot in two years if placed on the ground out in the air, dew, and rain. If kept dry in a well-ventilated house, wood of the same kind will remain sound for several centuries.

There is nothing new in these remarks; and I hardly feel justified in alluding, in this connection, to my humble efforts twenty years ago, when connected with the press in Buffalo, to improve the commerce of the lakes and the revenue of the Erie canal, by extending both the inland and foreign trade in Indian corn. At that time, the tolls on corn and corn meal amounted to nearly a prohibition. They were much reduced when the writer represented the city of Buffalo in the Assembly, and just before the famine in Ireland greatly favored the exportation of cheap breadstuffs. Had those who grow corn to the best advantage been as zealous to advance their interests, both at home and abroad, as the cotton-growers have been, their annual export of corn would now exceed in value that of American cotton. But corn-growers have thought it wise to turn their backs toward their earliest and most sincere friends. I was present in the United States Senate when the small appropriation of \$500 per annum to pay Dr. LEWIS C. BECK for making researches in relation to the preservation of breadstuffs, as published in the *Patent Office Reports* for 1848 and 1849, was voted down. Dr. Beck was a man of true science, and no politician; therefore congressmen had no use for his services.

I might quote from his analyses, and those of other chemists, to show that the *Mark Lane Express* over estimates the quantity of gluten and oil in corn, but it is hardly worth while for any practical purpose. Corn is not better than wheat for making bread; although I regard it as more healthy to eat some corn bread every day, particularly at the South, than all wheat bread. But as a matter of economy, corn meal is far better than flour "for the million."

The remark of the *Express*, that "Jonathan can never succeed in learning John Bull to eat either sour flour or musty meal," is expressed in such bad English that a tyro or a foreigner must have written it. If Jonathan "learns" anything, it is his own acquisition. He can not "learn" for another, not even John Bull, unless he teaches him the thing learnt. In that regard, almost any American school-boy might teach (not learn) John Bull to use the Queen's English with more propriety. The conceit of English editors is amazing. Their sharpness is so keen as to discover tricks and fraud in every American statement of a scientific truth, or agricultural fact; and all to cheat "the mother country!" Let Englishmen visit the United States, and put up corn and meal as they believe the operation ought to be performed to suit their markets: then Jonathan will concentrate his energies on improvements in tillage, manuring, and farm economy generally, and perhaps prosper without snubbing.

*University of Georgia, Dec., 1858.*

D. LEE.

### NO CATTLE, NO MANURE—NO MANURE, NO CORN

MESSEURS, EDITORS:—The above, although a Scotch maxim, will apply with equal force to the farmer of this country. And not only can we trace the origin of a good crop of corn directly to the cattle of a farmer, but by still closer scrutiny we can not fail to discover the fact that the very basis of good and profitable farming has its source in and derives its very existence from the stock connected with the farm; for, without the cattle, we get no manure; and if we are deprived of the manure, we have taken from us the very element requisite to insure success in the pursuit of agriculture; for not only do we find ourselves deprived of a good crop of corn as a natural consequence attendant upon the practice of not keeping the usual supply of stock, but soon we shall find that our grass crop is a failure, caused by the deterioration of the soil, which, in common with other things connected with our farming operations, has failed to receive the "top-dressing" from the barn-yard, which is so essential in order that we may receive a remunerative crop of hay and a good after-crop of rowen.

The orchard also depends upon the barn-yard for an annual supply of manure, in order to produce a golden harvest of fruit, so essential to the health and comfort of a family, and also upon which you depend in a measure for the annual filling of your purse, incident upon your fall sales.

The garden, also,—that great resort for boiled dinners, so essential to the health of the tiller of the soil—the place from which we derive many subjects for after contemplation and reference, and in which we pass many a pleasant hour with our wife or our children—is also dependent upon the barn-yard, which is an essential element in connection with a good garden—an element the absence of which can not be recompensed by any amount of imported guano or patent fertilizers.

The utter dependence of a good crop of grain upon the stock connected with the farm, must be apparent to any person who has taken ordinary pains to inform himself. We may send to Peru for guano, we may buy all of the new phosphates, or we may patronize the plaster mills to our hearts'

content; and after we have exhausted all these sources, we are sure to fail of being successful cultivators of grain, unless we have a good yard of manure to resort to. Certainly we can raise grain by the use of guano, and as certain it is that we may get good crops; but ask any one well posted, and he will tell you the chances are vastly in favor of the barn-yard as a fertilizer for the successful growing of any kind of grain.

The subject of stock raising is fast becoming popular among our most astute farmers—those that not only look to the profits derived from the farm for the present year, but who wisely calculate for succeeding years of abundant harvest, and full granaries for years to come.

It was not my intention, when I commenced this subject, to have continued it to so great a length; but if you consider it proper, I would like to make a few suggestions with regard to the management necessary in order to avail ourselves of the best mode of making a good yard of manure. In the first place, you want a good yard—one well calculated for making manure. Many persons have of late fallen into an error (in my estimation) with regard to the kind of a yard requisite, by choosing a too elevated and consequently dry yard. Now we will admit that a too wet yard is equally objectionable, but we would insist upon one of as near a medium degree of wetness as can conveniently be procured, for the reason that the stock can much more easily pulverize and mix together the contents of a moist yard, than they can of one very dry. The yard should also be often plowed, as frequent stirrings of the soil will tend to help forward the process of decomposition of the refuse straw and hay which should always find its way into the barn-yard.

With regard to the winter management, I suppose every reader of the *Genesee Farmer* is well enough acquainted with the advantages to be derived from keeping the manure from his stables under cover until wanted for use. If they are not, allow me to ask of them one favor, which is, that they try the experiment for one year; and if they are not satisfied that the advantages derived from this course amply pay them for the expense attendant upon it, then their experience will differ very materially from mine, under the same circumstances. Do not now hastily condemn this practice, nor consider that there is no improving upon the practice of your fathers, who, forsooth, raised good corn without sheltering their manure; but try it, and let us know the result through the pages of the *Farmer*.

H. G. PALMER.

*Lebanon, Conn., Nov., 1858.*

FOWL DISEASE.—Having met with a very singular disease among my poultry, I thought I would communicate an account of it for your valuable paper. We picked up a chicken that was so bloated up that we thought it was just dying. Its head was drawn over to one side. On examining it, the skin appeared as if it had been blown up; but upon puncturing the skin, the wind whistled out; and after repeating the operation a few times, the chicken recovered entirely, and is now one of the handsomest fowls we have.—MYRON E. TANNER, *Rockland Co., N. Y.*



## AN INTERESTING LETTER FROM COL. WARE, OF VIRGINIA.

Messrs. Editors:—In your April number, page 106, you say, "The editor of the *Southern Planter* states that several instances have been brought to his notice where cattle have died from eating corn stalks that had been chewed by hogs. Have any of our readers observed the same effect?" This, the Valley of Virginia, is a stock-growing country, and it is usual to cut up our corn green, (after the stubble is exhausted, toward seeding time,) to feed to hogs to keep them growing and fattening until penned. They not only consume the corn, but chew up all the stalks, extract the substance, and drop the balance. It has been known, ever since we adopted this plan, that if the cattle swallow this refuse of the chewed stalks, it would certainly cause their death, and therefore put it beyond their reach.

Again, page 131: "The duty of kindness to domestic animals." There is no diversity of opinion, among humane persons, on that subject; but is not kindness to animals the *interest* of their owners? As to the horse, I presume all tamers of wild horses accomplish their purpose as effectually (if not more so) by kindness as by any other course. You can not tame them properly by the lash. Whip a horse into submission, and whenever anything unusual occurs he looks for the whip, and is at once for clearing himself of danger by the use of his heels, and many times lives are endangered if not lost by it. On the contrary, a horse broken by uniform and patient kindness, gives his owner his confidence; and when anything unusual occurs, he quietly and patiently awaits his owner's voice. I have proved this very effectually with the high-mettled blooded horse. With all animals, the tamer you keep them the faster they will thrive. You can not get them tame without obtaining their confidence, and that you can not get without kindness. Cattle, all graziers know, will travel less and ruminate more, if so tame that you can approach and handle them without disturbing their repose, and consequently will thrive faster on the same food than if wild. With hogs, who, among their raisers and feeders, does not know that such as he can approach and rub and handle, and that quietly fill themselves and lie down and rest, will fatten infinitely faster than hogs wild with fear, that run at the approach of man. Sheep, it is well known, thrive infinitely faster when so tame that they can be approached and handled in the open field, and will lose the habit of jumping up and running when dogs come into the field, and be infinitely more safe from their destructive tendency, and do better in every way.

Again: "Are sheep or hogs the most profitable stock to fatten?" I am inclined to think neither are profitable, if not of the right kind. If both are, I say sheep. They both can be brought to maturity in early life. All must agree that the hog is the most troublesome animal on the farm, and requires, I contend, incalculably more grain to mature and and prepare him for slaughter. The grain required to *fatten* one hog would be sufficient to raise and fatten several sheep. But in selecting the kind of sheep to *fatten*, a judicious farmer would hardly look for any other than the mutton sheep—would hardly look for the fine-wooled sheep to fatten for

market by way of profit. Of all sheep, I prefer the Cotswold, from experience. They mature early, are large, hardy, and take on fat easy. During the summer and fall that they are one year old, (not fed on grain,) no mutton can be more delicately flavored, juicy, and tender. Over two years old, many muttons are better, as they then tallow too heavily for the appetite; but the butcher will then give almost any price for them; and what prudent man wishes to keep muttons to four years old, when he can sell them at one year old at much better prices than any other sheep at four? I have rarely, if ever, sold my muttons of this breed, the fall after one year old, under \$10 each, and have sold older ones much higher; and never sold them, at the same age, under \$8 each without having fed grain at all; and the fleece amply pays the keep. Can any breed of hogs show such *clear* profit and in so short time? and they have no wool to pay cost of keep. To meet any objection as to the danger of their loss by dogs, I will say I have had this breed some years in its purity, having always imported the sheep that won the high prizes of the Royal Agricultural Society of England, and have never lost a thorough-bed by dogs. They are large, heavy, sluggish sheep, with great aptitude to take on fat; they fill themselves and lie down and ruminate like cattle, and do not jump up and run when anything comes into the field. It is to this I ascribe their safety from dogs, as dogs are not apt to seize anything that does not run from them. But I believe that if common sheep were in the same pasture, their running would induce Cotswolds to do so too; and being bad runners, from their weight and sluggishness, the dogs would be most likely to kill the Cotswolds first.

"Pasturing sheep in orchards." I think this would be hazardous, if they trees were of any value, they are so apt to bark them, unless the bark was always coated with something offensive to the sheep.

JOSIAH WM. WAKE.  
Near Berryville, Clark Co., Va., Dec., 1853.

## PROGRESS OF AGRICULTURE AND HORTICULTURE.

EDITORS GENESEE FARMER:—It is now eighteen years since I came to this country, and during that time I have watched the progress of agriculture and horticulture, and notice a vast improvement in both. The farmers are finding that deep plowing and thorough draining are most essential to good husbandry. There is also more attention paid to the accumulation of the manure heap. Root crops and green food are also receiving some attention.

I would like to see more attention paid to the cultivation of carrots and mangel wurzel for feeding to cattle. I have grown carrots for seventeen years, and find that they pay well at twenty cents per bushel. I have cultivated the mangel wurzel for four years, with good success. This year I tried a portion of the ground with the *Yellow Globe* mangel, and they turned out very fine. Six of the largest weighed over 62 lbs. I had over 900 bushels per acre. They were grown on ground that was considered worthless a few years since, being a portion of land from which clay and sand for making bricks had been taken. When I commenced leveling and draining it, my employer said "it would not pay;" but now it is the best land we have.

Troy, N. Y.

JOSEPH CALDWELL.

## RENOVATING WORN OUT LANDS.

EDITORS GENESSEE FARMER:—For the benefit of others similarly situated, allow me to give your readers my experience in renovating worn out lands.

My father bought a farm of the "worn out lands," and I, being the farmer, found it rather discouraging business. The first year or two was a failure, neither of us having much experience in farming. There was no manure on the farm, and none for sale in the vicinity. In the winter, I plowed a very poor piece of ground, and sowed it to buckwheat in the spring as soon as the frost would admit. It grew well; and as soon as enough ripened to seed the ground, I plowed it under. It came on very fine, and about the middle of September I plowed it under again, sowing the ground to wheat and timothy. The next harvest the neighbors were astonished at the excellent crop raised. The timothy came on finely, and that ridge of poor land yielded an excellent crop of grass the next year.

It requires a good deal of labor to work land in this manner, but in my case it has paid. I kept an account of my labor and expenses, and the wheat crop alone paid all the expenses and yielded me *eighty cents* a day for my labor, and the ground was left in good order.

Another piece, on which the oats were so poor that cattle were turned in to harvest them, was plowed in August and sowed to buckwheat; and the fall being very wet, it had a large growth. When in full bloom, this was turned under and remained until spring, when it was prepared and sowed to oats again. The crop was heavy, notwithstanding the season was dry. Rye succeeded the oats in the fall, and was a good crop.

I can not say how long this manuring will last, though the fields mentioned still remain in good condition. They have been well treated since, with occasionally a few loads of barn-yard manure. I consider this the best way to improve a farm where there is no manure on hand or to be purchased.

*Ritchie C. H., Va.*

J. M. W.

REMARKS.—Buckwheat may be, and probably is, an excellent green manure where it is desirable to have a large and quick growth, as it will grow well on quite poor land. We should, however, recommend our correspondent to follow his buckwheat with red clover, and practice plowing in a good coat of that, before every grain crop. That veteran wheat-grower, Gen. HARMON, of Wheatland, N. Y., says he has manured wheat land for thirty years or more by plowing in clover, and it bore good crops and improved all the time. EDS.

OPEN DRAINS.—I construct open drains through the lowest part of my fields by first setting a stake at each angle. From these stakes I set off, each way, eight feet for the center of two ridges running parallel one to the other. By plowing these ridges year after year, in this way, I get three good ditches and two ridges sixteen feet wide, which I keep in grass. Drains made in this way will not fill up by frost heaving the banks, and will be found cheap and durable.—D. N., *Hammond, N. Y.*

## GENERAL IMPORTANCE OF AGRICULTURE.

EVERY reflecting man recognizes the nature, and admits the value, of agriculture; yet every such man is not himself a farmer, nor can he conveniently become one—the lots of many being cast in other departments of labor. Probably there are more who would cultivate farms, if they were fortunate enough to possess them, than there are who possessing them, would forsake them for a vocation less stable. Age, with its wisdom, likes the farm better than youth with its too frequent vain show and empty aspirations.

If it be true, as MONTESQUEU observes, that "countries are not cultivated in proportion to their fertility, but to their liberty," then republican America must soon rank second to no other nation in her perfection of terra-culture. Our agricultural population may not directly lead or control the country, yet they hold the truest sword in its defence; and in the heat of any contest, will imbibe new courage from the recollection of their pleasant and enduring fields at home.

I desire to present some thoughts upon this subject, in the form of distinct propositions.

1. As the roots and trunk of a tree are to its branches, so is agriculture to society; it upholds it, and draws from the earth and dispenses its nourishment to the different branches of the social fabric, while at the same time it derives new vigor from a vital reciprocity. Hence

2. Agriculture is the foundation of a well-established nation, and the most stable element of its wealth, independence, and greatness. Therefore

3. Agriculture should receive the fostering care of the State, and the respect and encouragement of every patriot.

4. Every farmer, to prosecute his business successfully, should feel and cherish an ambition in it, and a conviction that he is just the man for it; and, however unlettered he may be, under such incentives he will make great progress, not only in the profitable cultivation of his farm, but also in mental improvement. If he has not the stimulus of emulation, he should choose a business where he may be thus prompted, as agriculture can well spare the "slothful in business."

5. Although farmers as a body may never expect to become erudite scholars, each and every one would be greatly benefitted by a small library of standard agricultural and miscellaneous books. They are faithful companions that always instruct and elevate.

6. If it be the "mind that makes the man," it is not alone in its intellectual phase, but also in its moral. Every farmer who chooses, can attain to a degree of intellectual culture, and to a moral standard second to none. He can and ought to make himself the "highest style of man."

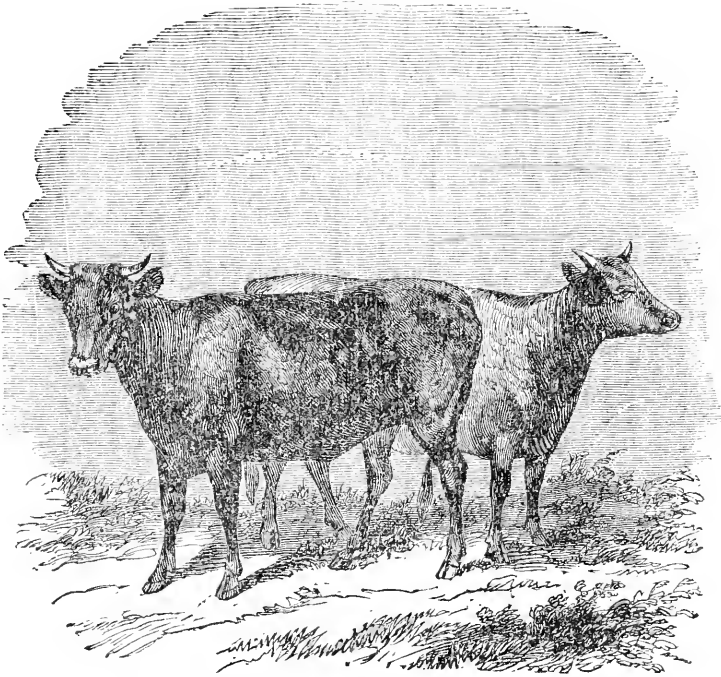
7. Although—in their well-being—vocations are mutually dependent, to a greater or less degree, the farmer should never mistrust the value of his profession, but should defend its dignity and worth by a commensurate independence before all men.

*West Medford, Mass.*

D. W. L.

SAND, to be useful for plants, must be combined with alkali to dissolve it and render it soluble, so that it can be drawn up with the forces of the plant. It is then called *silicate*.





YEARLING DEVONSHIRE HEIFERS, BRED BY M. VASSAR, SPRINGSIDE, POUGHKEEPSIE, N. Y.

### DEVONSHIRE CATTLE.

THE Devons are a valuable and distinct breed, possessing several characteristics peculiar to themselves, and of which they are very tenacious. They are uniformly red, varying to a bright bay or mahogany; no white on them if pure, excepting the brush of the tail, which is considered a sure test of the purity of blood. When calves, the end of the tail which forms the brush is always darker in color than the rest of the body; but by the time they are eight or ten months old, it is purely white, which never fails in a pure Devon, and generally runs with the blood to a very great extent.

There were originally two varieties of Devons, possessing different properties of excellence. The South Devons were represented as heavy in the fore-quarters; long and elevated horns; active, vigorous, and lofty in their carriage; but rather light behind, and their tails sometimes heavy; their color a light red.

The North Devons are small in the bone, fine and clean in the limb, straight on the back, full in the chest, prominent and bright in the eyes, keen in their looks, sprightly and active, and, as Lord Somerville said, "possess more of the appearance of what is termed blood in horses, than any other breed of cattle." Their horns are long, fine, and tapering, and yellow at the roots when young. Skin yellow, soft and silky to the hand, and hair frequently curled or wavy. Circle around the eyes and flesh of the muzzle yellow or orange color. Their uniform appearance renders them very easy to match, for labor, for which none can exceed them. They are excellent travelers, docile and tractable, and always command the highest price

for working cattle. Their beef is of the very best quality, being what fleshers term "well mixed," with fat and lean, and proves remarkably good when dressed, and yields as much in proportion to the food they consume as any other breed.

The Devon cows, as a breed, are not generally considered great milkers, so far as quantity is concerned; yet there are some exceptions; but for butter we hope to prove they are equal to any other breed. Like our native or common cows, there are poor, middling, and good milkers among them. Their milk is remarkable for its richness, eight quarts producing on an average one pound of butter, and the butter noted for its richness and fine flavor. Instances are on record of Devon cows having produced an average yield of over 200 lbs. per cow per year, in a dairy of twenty cows.

We once were the owner of a Devon cow which dropped her calf late in autumn; and from the 10th of December to the 10th of January, including both days, there were made from her milk 50 lbs. of well-worked butter—nearly equal to 2 lbs. per day. She was fed with hay, roots, and buckwheat bran. We also had a heifer two years old, from whose milk, in the month of June, was made one pound of butter per day on grass alone, and not very good at that.

Mr. ANDREWS, of Connecticut, says he made from one of his Devon cows 9 lbs. 6 oz. of butter in seven successive days in the month of January. Another cow of his yielded in ten days in June, on grass alone, 129 quarts of milk, making 13 lbs. of butter in the hottest weather of the month. From this circumstance he was induced to try the ten succeeding days, which reached into July, and found the yield to be 139½ quarts to a yield of 14

lbs. 1 oz. of butter, allowing the yield to be the same per quart as in the hot weather. As the weather was much more favorable, he was satisfied it would have yielded 15 lbs.

The Devon cow "Ruby," owned by Mr. W. S. COWLES, of Farmington, Conn., dropped her calf in February, and made in the month of April following 1 lb. 13 oz. of butter per day—equal to nearly 12½ lbs. per week.

The late Rev. H. COLMAN, in his *European Agriculture*, says: "The Devons are, as a breed, most highly and deservedly esteemed." Of their milking qualities he says: "The North Devons have strong advocates as a milking stock. The most productive cow in butter which I have found, was a North Devon, which for several weeks in succession, without extra feed, made 21 lbs. of butter per week. The character of the owner places it beyond a doubt." He gives other cases corroborating the above. These cases, and those before enumerated, we think establishes the fact that the Devons, as milkers, do not fall behind the "crack" breeds for milking properties.

The illustrations at the head of this article were taken in ambrotype, and engraved by Messrs. LOSSING & BARRITT. They are correct portraits of two yearling heifers, bred by M. VASSAR, at Springside, and sold to E. R. BROWN, Esq., of Mount Hope, Miss.

O. N. BEMENT.

*Springside, Po'keepsie, N. Y., Jan'y, 1859.*

#### WHEAT vs. OATS FOR SEEDING IN.

Messrs. EDITORS:—It is the practice of many of the farmers of this section, to seed their fields in wheat in preference to other grain, especially oats. They aver that oats abstract a greater amount of fertility from the soil than wheat, thereby leaving it in a poorer condition for a grass crop.

The rotation of crops generally followed here is, at the first breaking, oats; second crop, potatoes; third, corn; fourth, seeding down in wheat or oats. The latter many object to, "for," they say, "oats sap the ground more than wheat." Whether this objection is well grounded, I know not, and would like to hear from some of your correspondents on this point. My own observations are not in accordance with this opinion.

In a field, the whole of which received the same amount of manure, and the same treatment, one portion was seeded in wheat and the other in oats. On the former, the crop of grass fell short the past season, and it requires breaking again; while the latter yielded an average crop.

This year, a neighbor had a field which had been sown to oats the two preceding years, without being manured highly. He wished to plant the field with corn; but he thought if oats "sapped" the ground so badly, corn would yield a poor return. He therefore decided to plant another portion of the field, which immediately joined it, and which was planted to potatoes last year, and very highly manured. When plowing the field, he encroached a few feet on the stubble ground, on which two rows of corn were planted, receiving the same dressing and care as the rest of the field. At harvest, all the sound corn taken from the field was gathered from those two rows planted on the stubble.

*Dorset, Me., 1858.*

G. E. BRACKETT.

#### NOTES FOR THE MONTH.—BY S. W.

**SORGHUM SACCHARATUM.**—Sorghum failed to ripen its seed in Western New York in 1857, although frost kept off until the 18th of October; hence it was the opinion of many that this cane would not succeed well in our climate. But the wet and unusually cool season of 1857 is an exception to the general rule. This season, the little that has been planted has ripened its seed well. There can be no longer a doubt that sorghum is to become a profitable crop for syrup or sugar in any region where the Ohio dent corn is successfully grown, and the stalks and very nutritious seed will go far to pay for the cultivation.

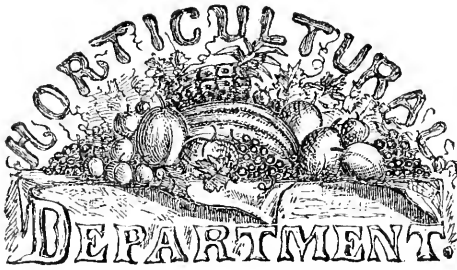
**THE IMPORTANCE OF SHELTER AND NUTRITIOUS FOOD FOR STOCK.**—Your Gorham correspondent, in the *Farmer* for December, contributes a scientific article on this subject, which should be studied by every neophyte in scientific farming. It shows how much fodder may be saved by warm, tidy stabling. Although the cow is more filthy than the hog, she prefers the cold air without to a stable redolent of her own excrements. But if she is permitted to run out on cold or wet nights, it will take nearly half the food she eats to keep her warm and comfortable. Hence the importance of a cleanly-kept, well-littered and ventilated stall. If straw is scarce, saw-dust or tan-bark is a good substitute; and freshly-burned, sifted coal ashes, is a good absorbent, and it puts a soft covering to a naked floor. Although good, early-cut, well-cured hay, is the best winter food for bovines, a little linseed meal, or Indian meal, or roots, fed daily, will more than save its cost in hay, while it adds to the health and flesh of the animal; and such rations are indispensable to keep up the milk of cows.

**THE BEST SOIL IMPROVIDENTLY TILLED.**—A friend writes from Aurora, Cayuga county, that his neighbor is overwhelmed with the idea of the manure necessary to his now very hungry fifty acres. This land was in the beginning the beau ideal of a soil for both grain and grass—a clay loam, ameliorated by lime pebbles, surface-drained by a gentle declivity to the bay, and a deep, narrow ravine, as an underdrain to boot! A Pennsylvania German, on the opposite shore of the lake, five miles further down, to whom I told this story, said: "Tell him to sow more clover seed and less timothy." This German has 130 acres, keeps seventeen head of bovines, three horses, fifty sheep, and hogs to pork his family and helpers. He grows corn, wheat, oats, and his own red clover seed, very little timothy; but he never fails to sow from six to twelve bushels of clover seed every year. He says he can not get so good or so large a crop of wheat with as little labor as formerly, although he feeds his soil better. It would thus seem that a kind Providence favors a pioneer in a new country, in pity for his privations, by giving him ample crops for little outlay or labor. But when he waxes fat, and eschews Nature's lavish bounties, she lets him know that they are not indefeasible, and he soon learns that if he would escape the decree that "man shall live by the sweat of his face," he must expect to pay the penalty.

*Waterloo, N. Y., Dec. 6, 1858.*

S. W.

A box 26 inches by 15.2 inches square, and 8 inches deep, will contain one bushel.



### FRUIT GROWERS' SOCIETY OF WESTERN N. Y.

The Annual Meeting was held at Rochester, January 5th and 6th, 1859, President NORRIS in the chair, and was more largely attended than any previous meeting, embracing twenty-three counties of Western New York, or all west of and including Oswego, Onondaga, and Cortland. This Society has effected more since its organization than any similar one in the country.

R. R. SORR, Chairman of the Committee on "Causes of Leaf Blight in the Pear," reported. "There is now very little difference of opinion as to the proximate cause of the disease. The important question now is the means of prevention," on which it is hoped the Committee will make a full report at the next meeting. They advise against "the use of ferruginous matter applied to the soil as useless."

Pending the reports of Nominating and Business Committees, an interesting impromptu debate occurred on "Pears suitable for Quince Stocks," and "Ripening Winter Pears."

#### PEARS SUITABLE FOR QUINCE STOCKS.

Prof. COPPOCK had found the union *perfect*, in an *Urbaniste* of eight inches circumference. The *Belle Lucrative* made an equally complete junction, and so did the *Vicar of Winkfield*, while in the *Bartlett*, *Columbia*, and others, it was very imperfect.

Dr. SPENCE, of Yates, advised the multiplication of records of cases, that, from the united experience of many members, we may arrive at perfectly correct conclusions.

#### RIPENING WINTER PEARS.

Prof. COPPOCK thought that if we understood how to ripen Winter Pears, we might have that most delicious fruit in perfection for the greater part of the year. For instance, the *Vicar of Winkfield* is pronounced by many to be merely fit for cooking, and hardly worth the raising. This variety is a most uniform bearer, with constant crops of well-matured fruit, which should remain on the tree as late as safe from frost. Then keep them in the ordinary manner, in cool, dry boxes, until such time as it is desirable to perfect them. "Just behind my kitchen stove, where the temperature was never much less than ninety degrees, I put a pine box

with shelves in it, and any pears I put in this box would ripen, in ten days, most perfectly." Fruit ripened in this way during December, he had sold at six dollars per bushel, and they were retailed at from five to ten cents each.

Dr. SPENCE had tried warmth, and all other ways, to ripen *Vicar of Winkfield* pears; but being from standard trees, he had never been able to ripen them well. Mr. COPPOCK's *Vicars* were dwarf trees.

P. BARRY, of Monroe, thought there was no great difficulty in ripening Winter Pears. First, have the fruit well-grown, perfect fruit, and you can ripen it as you do *Baldwin* apples. The *Vicar* is a very full bearer, and the general crop will be improved by going over the trees in summer, and picking off all the imperfect fruit. Leave the good fruit on the trees just as long as possible; then keep them in a cool place till into December. In ripening Winter Pears, they must not be exposed to the atmosphere.

Prof. COPPOCK wished to know how to ripen the *Glout Morceau*, so as to get a good flavor. It is juicy and buttery; but, with every process he could use, it still has a sharp, vinous flavor.

Mr. H. E. HOOKER, of Monroe, says he ripens them exactly like the *Baldwin* apple. Keep the barrels out of doors until freezing weather; then carry them into the cellar, and about the last of December the fruit will be nice. Young trees of the *Glout Morceau* do not bear as good fruit as when older.

P. BARRY.—The tree needs age to bring out the real excellence of the fruit. The *Glout Morceau* would bear good-flavored fruit by the time it was ten years old, "in any place except Buffalo." (Laughter.)

Prof. COPPOCK.—Some of the pear trees set out in Erie County had not been good nursery trees, but were refuse stuff, which, although sold at what was called cheap, were found to be dear, because the things were worth nothing. The Professor bought some of them, and was happy to say they were almost almost all gone. Purchasers of fair nursery trees were successful; and he would assert that dwarf pear trees grew in Buffalo about as well as any where else, after all. He knew of a great many fine trees growing in the gardens of Erie County.

S. H. AINSWORTH, of Ontario, has a quantity of *Vicar of Winkfields*; ripens them as late as he can on the trees; keeps in a cool room until he wishes to perfect them, which he does in a warm room, in drawers covered with cloth.

BENJ. FISH, of Monroe, wrapped his *Vicars* in paper, and laid them in a dark closet, in an upper room with a cool atmosphere. Ripened in December, as nice as any pear.

H. E. HOOKER.—No process of ripening will make a good pear out of a poor one. Have the fruit well matured upon a well-cultivated tree, and it will not be difficult to ripen it nicely.

#### THE CURCULIO.

Dr. SPENCE, of Yates, introduced a subject which was quite fully debated at the meeting in June last—*The Curculio*.

Prof. COPPOCK had tried the sheet and shaking process, and produced an abundance of plums—four or five bushels to a single tree.

J. J. THOMAS, of Cayuga.—The jarring must be done every day—early in the morning—and faithfully done.

S. H. AINSWORTH.—One year tried the assa-fetida and tanners' oil remedy, and the trees were loaded with fine fruit; but it killed the trees as well as the curculio. No process is of any avail, unless thoroughly attended to. Once killed (by the sheet and shaking) fifteen hundred curculios from twenty trees in one forenoon, and finally was compelled to hire a thoughtless neighbor to cut down trees where the pests were breeding, in order that he (AINSWORTH) could have fruit.

Mr. MAXWELL, of Ontario, reported the burning of leather upon pans of charcoal as sometimes effectual.

L. BARBER, of Ontario, once had the hen fever, and while he kept fowls had plenty of fruit. Killed off his Shanghais, and had no plums. Smoked leather, tried tobacco, burnt grease, fumigated the rascals all he could, and still they took all the fruit. Tried the chickens again, and at once had fine plums.

P. BARRY.—There are many cases where pigs and chickens cannot be kept under the plum trees, and then we must use the sheet and shaking remedy. Raises from fifty to sixty sorts of plums, nectarines, &c., by thoroughly jarring the trees every morning, and killing the curculio.

L. B. LANGWORTHY, of Monroe.—Nothing is very good but shaking the insects into a sheet, and killing them afterward.

#### FIRST DAY—AFTER-NOON SESSION.

The President delivered his annual address (which will be published by the Society). The following officers were appointed for the ensuing year:

*President*—BENJAMIN HODGE, of Buffalo.

*Vice Presidents*—J. J. THOMAS, Union Springs; W. BROWN SMITH, Syracuse; Prof. W. R. COPPOCK, Buffalo.

*Secretaries*—C. P. BISSELL, Rochester; JNO. B. EATON, Buffalo.

*Treasurer*—W. P. TOWNSEND, Lockport.

*Executive Committee*—P. BARRY, Rochester; JOHN J. THOMAS, Union Springs; C. L. HOAG, Lockport; W. B. SMITH, Syracuse; JOSEPH FROST, Rochester.

The Business Committee reported subjects for discussion as follows:

1. *Cultivation of Apples.*—How many varieties should be embraced in an orchard of 1,000 trees, to secure the largest profit of orcharding in Western New York?

2. Which are the most profitable varieties for an orchard of 1,000 trees?

3. *Cultivation of Pears.*—Which offers the surest and greatest profit in extensive orcharding, Autumn or Winter Pears, or both?

4. How many and what varieties should be embraced in an orchard of 1000 trees, to insure the greatest degree of success and profit?

The following questions apply to the cultivation of both Apples and Pears:

5. What season, fall or spring, is most advantageous generally for planting extensive orchards?

6. What is the most favorable condition of soil, both as regards quality and previous cultivation?

7. Is the application of manures or compost necessary at the time of planting; and if so, what kind?

8. How often, and in what quantities, should manure be applied to orchards to secure the best results, both as to tree and fruit?

9. What are the advantages or disadvantages of root-grafting, in comparison with seedling-stock-grafting, with reference to growth, durability, and productiveness?

10. What process of manuring, if any, is best adapted to the pear and apple, after coming to the period of producing fruit, and at what depth should they be planted?

11. What period of time is required to perfect the fruit bud from its first inception to its ability to produce blossoms?

12. What is the experience of this meeting as to the present or final result in the success of dwarf pears?

13. *Grapes, &c.*—Is grape-culture, for wine, profitable north of the latitude of New York city? If so, what varieties will make the most and the best wine to the acre?

14. Which grape juice becomes good wine with least care, attention, and expense?

15. What sorts of grapes are best to grow for other than wine purposes north of the latitude of New York city—i. e., best as to their productiveness, hardness, and time of maturity?

#### CULTIVATION OF APPLES.

Questions 1 and 2 were taken up.

L. B. LANGWORTHY.—We are speaking of one thousand trees, and, of course, want market fruits. Although the *Baldwin* is far from being our best apple, yet it sells well, and I would have five hundred *Baldwins*. Of *Fall Pippins* we have never enough, and I would have five hundred *Fall Pippins*.

Dr. SPENCE.—In Yates County the *Fall Pippin* is a shy bearer, and not a first-rate keeper. The *R. I. Greening* and *Baldwin* always bear and always keep. The *Tompkins County King* is good early in the fall, and from the first of December to the first of April, is a very favorite apple with buyers. It is an abundant bearer, is superior to the *Baldwin*, and is a fine, large apple.

J. J. THOMAS, of Cayuga, did not wish to be confined to two or three sorts. Some sorts will succeed in some seasons, and some in another. Of a dozen sorts, some will be sure to succeed, and we shall have plenty in each year. The three sorts named by Dr. SPENCE are best for two-thirds of any one thousand apple trees.

H. E. HOOKER endorsed heartily the remarks of Messrs. THOMAS and SPENCE as to sorts. Would add *Twenty Ounce*, or *Cayuga Red Streak*. Any buyer will take it first. It is very productive, ripens in all November and December, and takes the place of the *Fall Pippin*, which, though unequal for quality, is a poor bearer. Would also add the *Tolman Sweet*. The growers in Wayne County say they have no better sort. It ripens from the first of December to the first of May. Would add the *Roxbury Russet* for late keeping.

Mr. L. BARBER would, for East Bloomfield, plant five hundred *Baldwins*, two hundred and fifty *Roxbury Russets*, and two hundred and fifty *R. I. Greenings*.

Mr. STONE, of Oswego, would remind the members of three kinds of cultivators—first, amateurs; second, family cultivators; and third, market orchardists—and we are only recommending such fruits as are best for the latter. Would add *Lovell* and *Wagener*. The latter is prolific and handsome, and is an admirable cooking apple.

Mr. ELLWANGER, of Monroe, added *Sweet Bough* and *Red Astrachan*.

T. G. YEOMANS, of Wayne.—The requisites are, the tree must be a good grower, and a good bearer; fruit of good quality, and so firm as to be carried to distant markets without bruising or damage.

The *Baldwin* never fails to fruit well, when any thing else bears. Of the one thousand trees, would have nine hundred and ninety-nine *Baldwins*, and the other one a—*Baldwin*!

Mr. FISH would have at least ten varieties.

W. B. SMITH, of Onondaga, would have all *Baldwins*, because it is the greatest bearer, produces most fruit in a given time, and the trees are uniformly healthy and vigorous.

Prof. COPPOCK.—In the country, would have the *Baldwin* and *Greening*; living near the city, he wanted early apples—the *Keswick Codlin*, *Early Harvest*, as well as the *Red Astrachan*.

Mr. BAREY.—From *Baldwins* the most profit is made, generally speaking; but an orchard is a great investment—an investment (if well made) for two life times—and it is better to have trees not bear quite as early, than to have them wear out so early. Would have five sorts, at least.

H. N. LANGWORTHY, of Monroe.—It would not appear well for this Society to recommend only one or two sorts—the taste of purchasers would get cloyed. Would have ten or twelve varieties.

Quite a discussion sprung up as to the merits and value of the *Northern Spy*—some not thinking very highly of it, and others remarking: "I do say and repeat, that the *Northern Spy* is the finest apple that ever was grown, to my taste. Have seen crops sent from here to every part of the Union, and lauded to the skies. As to its delicacy of skin, ten barrels were carried to Milwaukee from Western New York last winter, and arrived in fine condition." "If the tops of the tree are spread by proper trimming, and the fruit is thinned so the tree will not bear too heavily, the fruit is of enormous size, high colored, and very fine. The tree will bear every year."

Members balloted on questions 1 and 2 as follows: Two voted for all *Baldwins*; five voted for five hundred *Baldwins*, and balance made up of *R. I. Greenings*, *Roxbury Russets*, *Northern Spies*, *Twenty Ounce*, and *Tolman Sweet*; while the remaining votes were from two hundred to four hundred *Baldwins*; each voter making his number up to eight hundred or nine hundred from the above-mentioned varieties, and filling in the balance of the thousand with some particular favorites of the voter.

#### EVENING SESSION.

##### CULTIVATION OF PEARS.

*Question 3.*—After remarks by some half dozen or more members, it was found that no difference of opinion existed, and, at present, Autumn Pears were most profitable.

*Question 4* was not balloted upon, as in the present state of our knowledge we cannot be very positive. Remarks by members were very inter-

esting; but we are compelled to pass by many of them, for want of space.

Prof. COPPOCK, nine years ago, put out several hundred trees, part on quince, and part standards. From them had marketed quite a quantity of pears, and they were all from the dwarfs—not any surplus from the standards. Many sorts that are finest on quince roots—for instance, *Duchesse d'Angouleme*—are worthless as standards.

One member realized from one hundred and sixty dwarf trees, two hundred and sixty-two dollars cash in one year.

Statements were made of the profits in Ontario County from standard *Virgalieus*, &c.—trees forty years old—for twenty years, averaging twenty bushels a year, which sold at an average of three dollars per bushel.

Mr. BARRY advised, for dwarf trees, *Duchesse d'Angouleme*, *Louise Bonne de Jersey*, *Vicar of Winkfield*, and *Easter Beurre*; for standards, *Bartlett*, *Sheldon*, *Seckel* and *Lawrence*. It is important to start right, with land well prepared, and with but few varieties, and be sure that those are of healthy, vigorous, good-bearing trees.

##### CULTIVATION OF APPLES AND PEARS.

*Question 5.*—Fall planting was strongly advocated by some, because the earth gets settled around the roots, and the trees are ready to throw out new roots early in the spring; but trees can be safely transplanted at any time, when frost will permit, between October and May, if the soil be properly prepared beforehand, and the trees be suitably cared for afterward. All trees are better for banking up around them, when set out in the fall. In spring, there is danger from drouth. But far more depends upon the treatment of the trees at and after the time of planting, than upon the season when they are set out. All trees, and, in fact, all plants, should be heavily pruned back when set out, so that there shall be no disproportion between the top and the roots.

*Question 6.*—The soil should be well drained; should be deeply and well cultivated; and then even a stiff clay loam would produce good pear trees and pears.

#### SECOND DAY.

##### CULTIVATION OF GRAPES.

The suspension of the rules was moved, in order that the following substitute for questions 13, 14 and 15 might be introduced:

"*Grapes.*—What are the best and most profitable varieties, or variety, for general cultivation for market and wine? best distances for planting? preparation of soil, and manner of training, trimming, and cultivating? kind and form of trellis? curing and marketing the fruit, and profit per acre to the successful grower for market and for wine?"

This subject covers great ground, and was quite fully discussed. Any well-drained land that will

grow first-rate corn, will grow good grapes. Another member says, any soil that will bear good winter wheat, will produce grapes. It should be worked twenty inches deep—the deeper the better—and made rich with manure, swamp muck, &c.

Mr. ANSWORTH, who largely cultivated the *Isabella* vine, gave an interesting account of his mode, as follows:

The ground should lie favorably, with southern inclination, and woods to shelter from unfavorable winds. Three hundred and twenty vines to the acre places them twelve feet apart each way. Yearlings, with plenty of roots, are the safest planting, and, as the roots are more fibrous, will, by the third year, produce about ten pounds to each vine—as much as if two years old when set out. Cut back to three buds, and plant as deep as they stood in the nursery. Trellises should run north and south, end posts well braced, and with five No. 8 wires, the lower one a foot from the ground, and the top one six feet. Practices the renewal system.

One member, whose vines had come into full bearing, reported his present profits as at least fifteen hundred dollars per acre—but this is under a high system of cultivation. Other reports were not quite as favorable as this, but none, even of large vineyards, were less than five hundred dollars per acre, net.

Judge LANGWORTHY.—*Isabella* will not make wine to make glad the heart of man—has not enough tartaric acid—is like refined and superior cider. If sugar enough be put in, it will make what the French call *liqueur*—a sort of cordial, but not wine. *Clinton* grapes make a wine with tartaric acid enough to be “wine as is wine.”

Dr. FARLEY used to think that good grapes could not be grown on a clay soil, but had found that they could. Cultivates five acres of *Isabella* vineyard. Is now beginning the *Diana*, which is as hardy as the *Isabella*, and, to his taste, is superior to even those celebrated sorts, the *Delaware* and *Rebecca*. Said he: “I had rather eat a *Diana* half ripe, than the best-ripened *Isabella* I ever saw. That the *Diana* is the most valuable grape that we have, is perfectly clear to my mind.” The *Concord* grape is almost as good as the *Isabella*—ripens fully two weeks earlier, and holds its fruit well after ripening.

Dr. MINER was full in the faith of the *Diana* being one of the best grapes, both for abundance of bearing and for the table. Wherever the *Isabella* will not ripen, the *Concord* is valuable.

*Dianas* are very sweet, without much pulp, and, in the language of a member, are “perfect bags of juice.” Therefore, they promise to be a most valuable wine grape.

#### PRUNING DWARF PEAR TREES.

On motion of Prof. COPPOCK, the subject of Pruning Dwarf Pear Trees was now taken up, and Messrs. YEOMANS, of Wayne, and BARRY, of Monroe, gave very interesting practical illustrations, with the tree before them. But as our readers can find this, with engravings, on pages 45 and 46

of the *Rural Annual* for 1858, we omit the full report.

#### CULTIVATION OF APPLES AND PEARS.

On motion of H. N. LANGWORTHY, the Society returned to the regular order of subjects, viz.:

*Question 7.*—Mr. HOOKER would not allow manure to touch the roots of trees when planting, but applies it to the surface of the ground, and the rain will carry the soluble matter to the roots, while the balance acts as a mulch, preventing bad effects of severe frosts or drouths.

MESSRS. LANGWORTHY, SMITH, BOARDMAN, RANNEY, COPPOCK, MATTISON, and others, concurred with Mr. HOOKER as to the injurious effects of fresh manure upon the roots of young trees.

E. BOARDMAN covered a piece of land with a heavy coat of manure, which he plowed in, and then planted trees, and three-quarters of them died.

*Question 8.*—Mr. MATTISON, of Monroe, has always seen that when a farmer wants a fine calf, he feeds it. Equally necessary is it to an orchard to feed the trees and make them fat. As to how often to apply the manure, and in what quantities, each man must judge—only keep the land in good heart, and cultivate it well.

Another member said no crops should be grown on the land of the orchard; but to sow clover, and plow it in while green, was a capital mode of manuring.

*Question 9.*—There seemed to be no difference of opinion—all grafting should be seedling stock grafting, and the roots of old trees should never be used. But the theory of *Terra-culture* Comstock as to the collar of the plant being the seat of life is exploded, and a seedling stock can be divided into two or three parts, and used with success in grafting scions. Experiments had been tried, and no difference was seen as to “growth, durability, or productiveness.”

*Question 10.* Apply the manure in any way so that its soluble portions can come to the roots through earth; apply over the whole orchard, or to a large area around each tree. Members who had tried liquid manure quite thoroughly, were now rather out of conceit with it.

The hour for adjournment having arrived, Mr. SMITH, of Onondaga, moved that the next meeting be held at Rochester. Passed, in spite of the efforts of several Rochester gentlemen, who wished it held at Buffalo next June. Adjourned.

JAPAN APPLE-PIE MELON.—I have grown this melon the past summer, from which excellent pies are made, hardly to be distinguished from good apple pies. It is as easily grown here in Illinois as the cucumber, and produces abundantly. It is an invaluable addition to our list of vegetables, as it will keep all winter, if free from frost, and is ready for use at any time. W. H. GARDNER, *Sublette, Lee Co., Ill., January, 1859.*

## NOTES FROM PENNSYLVANIA.

EDS. GENESEE FARMER:—As another winter has set in, I will send you my annual report of crops and prospects, to be placed on record.

We have had some drawbacks in the shape of wet weather and drouth, but on the whole we have little reason to complain. Hay was well secured—a fair crop; wheat a light crop but of good quality; oats very light—not more than one-fourth of a crop; corn good and well matured. The small fruits—such as the currant, raspberry, strawberry, and blackberry—were good, though some of them were injured by the hot sun and did not mature well. Apples, pears, peaches, and plums, were almost a failure; there were but few specimens, and most of those were imperfect. Of grapes, the crop was fair—not abundant, on account of the rot. My *Black Hamburgs* and *White Muscat of Alexandria* have done very well, and I feel elated with my little cold vinery. I would advise every farmer who has a place of his own, to build one. It may be used to start early vegetables; and then the luscious grapes which can be raised at so slight expense, amply reward the outlay. My vinery, which is sixteen feet long, and covered with four hundred feet of glass, cost me only about *thirty-three dollars*; and I intend to enlarge it this winter, if possible.

The wheat now on the ground looks very promising, and is thus far, I believe, free from insects. *Chester Co., Pa., Dec., 1858.* E. F. B.

CAN not our correspondent furnish a brief description of his vinery? It is difficult to understand how one can be built at the cost he names, allowing nothing for his own labor. EDS.

## LARGE PEAR AND APPLE TREES IN ENGLAND.

A correspondent of the *Gardener's Chronicle* gives a description of some large Pear trees near Gloucester, an extract from which may be of interest to the readers of the *Genesee Farmer*:

"In one orchard there are now growing 10 sound perry Pear trees, whose average circumference three years ago, at between 2 and 3 feet from the ground, and below the graft, was 9 feet 4½ inches, but taking the three largest trees separately, above 11 feet; the circumference of the largest tree was 11 feet 3 inches, that of the smallest (of the whole number) 7 feet 4 inches, and they are all of them of the very fullest height and span, the span of the largest being 60 feet. A few years ago the largest branches of the largest trees, for a sadly fallacious reason, were cut off, before which unjust treatment they produced an averaged crop of a ton of Pears, of the noble kind called *Huffcap*, the flavor of which though rough and wild is full of fine aroma; but one of them, and not the largest tree, is known to have yielded in one season 2 wagon loads—20 sacks—100 bushels—2 tons—4 hogsheds of perry. Apple trees are so much smaller than Pear trees that it takes an Apple tree of the largest size to produce a hoghead of cider; but they will often reach that size, and I was told that a farmer in the west of England laid a wager that he would produce

from 30 of his Apple trees as many hogsheds of "Apple drink." A great deal may be said that has not yet been said about perry Pear trees, their enormous size and vast longevity, their freedom from canker, and where the soil is drained, apparently from all disease; the tendency of their branches when they have reached a certain height to split at the fork, "from the oppression of their prodigal weight," and the chains and wooden frames with which they are then supported, and which at length become embedded in the living trunks that embrace and close over them, without any fretting or loss of health, or injury to their growth; the great size at which they are cut down nearly to the ground, and the trunk being stuck around with numerous grafts; the vigour with which they will grow again and form a second tree of still greater dimensions, to the almost complete obliteration of the process that they have undergone, their tendency, where the soil is wet, to run to stem and branches, with no small twigs and a very few leaves."

## A BEAUTIFUL OAK.

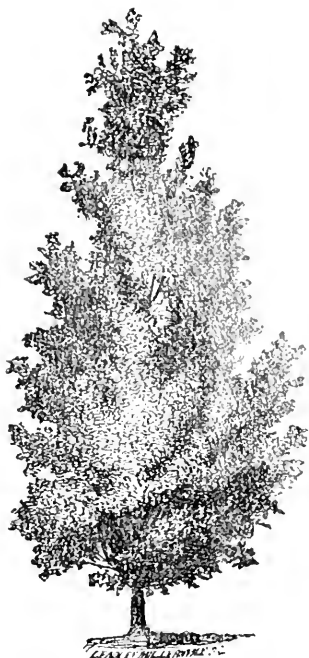
No country is so rich in varieties of the Oak as America; and yet, while all admit its great beauty, it is rarely met with, even in our best ornamental grounds. Its comparatively slow growth induces ordinary planters to neglect it. Those who build on a bare and treeless spot, very naturally plant trees which will rapidly grow up and convert its bleak, harsh aspect, into cozy mellowness and beauty. But while this is desirable and proper,—while it is good to plant for immediate effect,—the future should also be borne in mind.

Two or three Oaks should have a place in every collection of ornamental trees. They please the eye with their charming variety, even when young, and will be objects of great beauty when the rapid-growing trees have passed away. Downing well says: "As an ornamental object, we consider the Oak the most varied in expression, the most beautiful, grand, majestic, and picturesque, of all deciduous trees."

The entire tree or shrub of every species of Oak is highly ornamental—the least so, perhaps, are the willow-leaved Oaks, and the most so, the lobed and deeply sinuated leaved kinds. The foliage, even of the same species, and more especially of the deciduous kinds, varies exceedingly; not only on different individuals, but on the same individual at different seasons of the year. In spring, the leaves of many of the deciduous kinds are small, delicate, and beautifully tinged with yellow and red; in summer, they are broad and green; and in autumn, coriaceous, and of a russet brown, scarlet, or blood-red color. In form and outline, the Oak has greatly the advantage over other trees in point of character and variety.



We annex a cut of the Upright-growing Stalk-fruited Oak, which Bosc describes as the "hand-



UPRIGHT-GROWING STALK-FRUITED OAK — *QUERCUS PEDUNCULATA FASTIGIATA*.

somest of all the Oaks for ornamental landscape." In general form, it resembles somewhat the Lombardy Poplar.

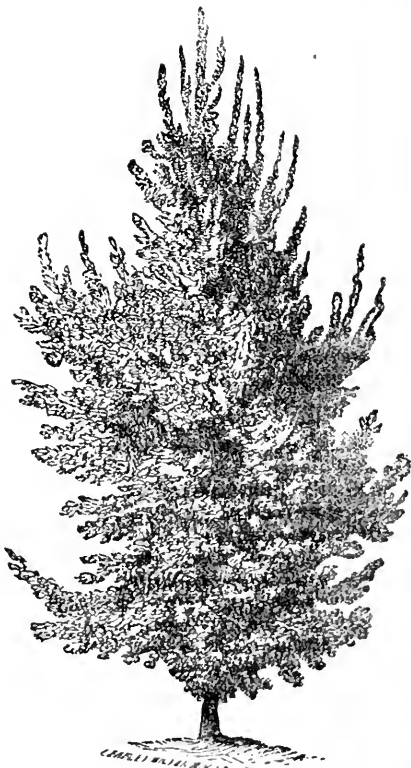
#### TREES FOR AVENUES.

It is reported that the Royal Commissioners for 1851 are about to plant their three great roads, viz., Exhibition Road, Cornwall Road, and Prince Albert's Road, with Lime trees. Notwithstanding the beauty of this tree, we can not but hope that the statement is erroneous, and that an opportunity will not be lost of showing what effect can be produced by something less hacknied. Surely it will be highly discreditable to this, the greatest horticultural country in the world, if nothing more can be found for avenues than trees employed in the days of the Troons. For forty years, very large sums have been annually spent in procuring new hardy plants from every accessible climate; and it will reflect little credit upon the advisers of the Royal Commissioners, if they should prove so poor in resources as to have in 1855 nothing better to recommend for avenues than might, indeed, have been had at the Conquest.

What is required for avenues near London? Trees that are durable, have handsome foliage, that grow fast, that will bear occasional winter fogs and the long east winds that prevail here in the spring. The handsomest, the fastest growing, and the latest in leafing because the least likely to suffer from cold north-east winds, are the best for this purpose.

Elm trees, Lime trees, and Beech trees, are most in use, because they were the trees of our forefathers, and people in country places, when avenues were made, even if they had had other trees, would not have thought of looking beyond what they could find in their own neighborhood. But that Elm trees and Lime trees have formidable rivals is sufficiently proved by the glorious Horse Chestnuts of Bushy. Avenues of Horse Chestnuts at Kensington would indeed be far preferable to Lime trees, if we must trot along at the pace of pack-horses.

But are we to disregard everything that modern experience has shown to be suitable for avenues, except the trees just mentioned? Have North American Maples no merit, nor Sweet Chestnuts, nor Oriental Planes, nor any of the Oaks, nor the glorious Tulip trees, nor graceful Ailanthus, nor the noble Black American Walnuts? Surely, among these something may be found more worthy the Royal-Commission-roads than Elms, Beeches, Limes, and even Horse Chestnuts. Elms indeed are not to be thought of; it would never do to plant by roadsides trees so rotten in their old age as to be dangerous to passers by. The experience of Hyde Park is a warning. Nor would Beeches answer, because of their invariable secretion of

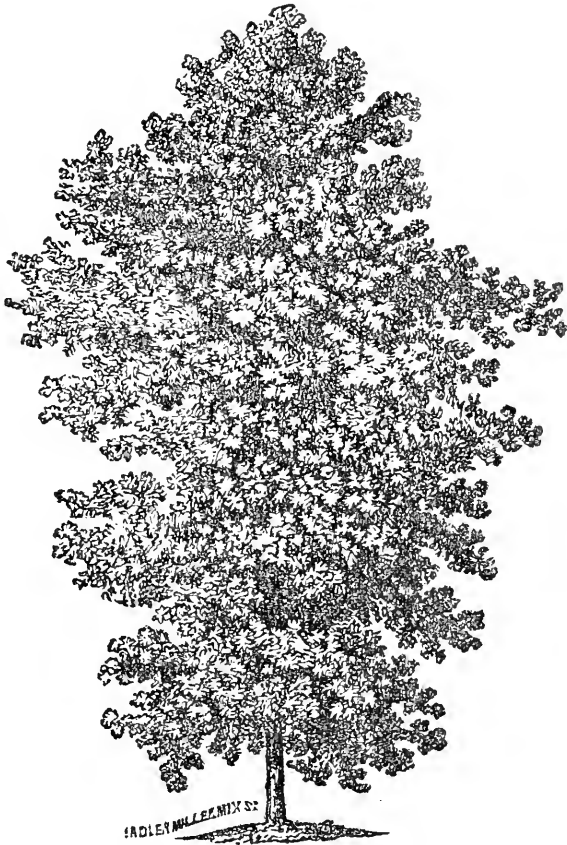


TOOTH-LEAVED TURKEY OAK, OR FULHAM OAK — *QUERCUS CERRIS FULLAMENSIS*.

honey dew, which would gum London soot to their leaves and speedily throw them out of health.

It may be asked why Spanish Chestnuts are not selected, trees far more beautiful than Lime trees, both in foliage and flower, graceful in youth, majes-





THE TULIP TREE—LIRIODENDRON TULIPIFERA.

tic in old age, and possessing every quality that is required. True Sessile-fruited Oaks, among the finest of trees, will bear London atmosphere, and might be associated with Spanish Chestnuts alternately. Oriental Planes, than which none are hardier, none more umbrageous, none better suited to our Parks, with good management will grow much more than a foot a year in height, and endure for ever. These things are well known to all men.

Among less common species, there is the *Acer eriocarpum*, commonly called Sir Chas. Wager's Maple, one of the fastest growing of American trees, remarkable for its airy foliage, light green in spring, rich rose color in autumn. With it might alternate the *Acer macrophyllum* of Oregon, a specimen of which in even unfavorable ground has made nearly two feet in height annually, and has now, at the end of about 28 years, a girth of six feet. Nothing could be more striking than the massive deep green foliage of the latter associated with the lighter shade of the former.

Are Turkey Oaks to be passed by? They grow faster than the Lime, and, owing to the thinness of their foliage, are exceedingly graceful.

Then there are Tulip trees. Let any one look at the specimen on Ham Common, and say whether such magnificent vegetation is to be disregarded.

A Tulip tree in land no better than that of the Cornwall Road, grows as fast as any Lime.

Above all things, we should regret to find the claims of *Ailanthus* and the American Black Walnut passed by. These trees are so much alike in general aspect, that they may be spoken of together. Each will grow as fast as the fastest Horse Chestnut; has noble, rich, green, pinnated leaves; and the first, in good seasons, is resplendent with crimson fruit. Surely they deserve to be thought of.

Were each of the three avenues now to be planted furnished with its own peculiar trees, two sorts in each case planted alternately, an admirable effect might be obtained by some such arrangement as the following:—Cornwall Road, Tulip trees alternating with *Acer eriocarpum*; Exhibition Road, Black Walnuts and *Acer macrophyllum*; Prince's Road, Turkey Oaks or Sessile-fruited Oaks and Spanish Chestnuts. If it should be said that such trees, of the requisite height, are not procurable in England, we have two answers. 1. There are more nurseries than the English; the Continent and United States are within easy distance. 2. Let the planting be deferred until trees of the requisite height can be raised in nurseries under a contract to supply them at a future time.—*London Gardeners' Chronicle*.

## CULTIVATION OF THE GRAPE.—No. 1.

EDITORS GENESEE FARMER:—Grape-culture is at this time attracting a large share of public attention. Not only amateurs and professional fruit growers, but farmers, also, are devoting much time, labor and capital to the cultivation of grapes, not only for table use, but also for wine. The trial of the newer varieties is prosecuted with a care and zeal that argues well for the future of this most luscious, certain and remunerative of all fruits.

The almost fabulous prices at which some of the newer and better sorts are selling, as well as the profits of the crop, as reported at the last session of the "Fruit Growers' Society of Western New York"—varying from five hundred to fifteen hundred dollars per acre—are inducing many, and some hitherto only amateurs, to plant with an eye to profit; a result at which I feel sure they will arrive, if they never sell a vine or a pound of fruit.

As you desire a series of articles upon the "Culture of the Grape," I offer you the substance of an article on that subject published in your *Rural Annual* for 1858, to which I propose adding a few explanatory cuts; the whole to be succeeded by a description of the most desirable of the newer varieties of grape worthy the attention of cultivators.

In the successful cultivation of the grape, the first points to be considered are

## SOIL, SITUATION, AND EXPOSURE.

Perhaps it is needless to say that the best site for a vineyard is the south side of a hill, where the vines at mid-day will be fully exposed to the full influence of the sun. There the vines will get the proper sunshine and light so necessary to the full and healthy development of leaves and fruit. They will there be sheltered from the chilling north-east winds sometimes so prevalent in spring and early summer, and very liable to bring mildew to the young and swelling fruit in the month of July. A south-eastern exposure is also good, because it receives the sun pretty early in the morning, and is exposed until late in the afternoon. A full east exposure is not so good, because it is exposed to eastern winds; and the vines are very liable to injury from late spring frosts, the sun coming upon the vines so suddenly as not to give them time to thaw out gradually. It is well known that tender vegetation, slightly frozen in the spring, if thawed out in the shade, receives little or no injury; but when exposed to the sun to thaw out suddenly, is almost sure to be killed. A full east exposure also loses the sun too early in the afternoon. A western exposure is still worse, from its receiving the sun so very late in the afternoon, and is liable to suffer from chilly evening dews. It is also more liable to suffer from west winds and driving storms.

Hill-sides, or elevated ground where the soil is naturally dry, warm and deep, is absolutely necessary to the well-being of the vine. It not unfrequently happens that high ground is very springy and wet, but such places are usually very readily underdrained.

Grape vines can not thrive long in low, wet, cold situations—the roots are apt to canker and rot, and the grapes are liable to be affected with the wet-rot, and are invariably watery, insipid, and of poor flavor, and never make the best wine. In such

places, the sun's rays hardly ever fall upon the vines with full force and in the proper direction, so as to thoroughly warm the soil and ripen the wood of the vine, and give flavor to the grape. Moreover, grape vines in such localities are far more liable to be heaved by severe winter freezing; the wood not being thoroughly ripened, is unable to withstand the severity of the winter, and also more subject to mildew in summer; and, in addition, they must necessarily be more liable to the depredations of injurious animals, such as mice, muskrats, &c., as they are well known to frequent low, wet places, rather than high and dry ones.

There is, however, a great difference between the foot, the middle, and the summit of a hill. The top of a hill is very frequently too exposed to the cold north winds; and moreover, is frequently too stony and poor, all the organic matter having been washed down on to the hill-side and into the bottom. The foot of the hill, not receiving adequately the full force of the sun's rays during the day, is more or less subject to late spring frosts. The middle of the hill, therefore, is the best; the fruit comes to maturity earlier, and has a longer time to more perfectly ripen, and is, consequently, more fit for wine, and of better flavor for the table. The wood of the vine, also, is more thoroughly ripened, and is, therefore, better enabled to withstand the inclemency of the winter.

The vineyard should not be located very near low, wet woods, large ponds, swamps, lakes, marshes, &c., as such places always generate fog and mists in the latter part of summer and early fall, just when the dryest atmosphere is wanted for ripening the grapes. There should not be large hills, high trees or large buildings near enough to cast a shade upon the vines. Nor should vineyards ever be made in deep gullies, valleys or ravines. Such places always cast much shade morning and evening, and create whirling currents of wind, which collect much snow in winter, which is liable to break down the vines. They also harbor all kinds of noxious animals, such as mice, &c.

The quality of the soil, also, is of the utmost importance. The grape vine will live, it is true, where any other hardy shrub will grow; but if planted in cold, wet, stiff, clayey soil, it cannot thrive many years, and the grapes, if they ripen at all, will be watery and insipid. The only way in which such a soil can be made fit for the grape vine, is by mixing with it great quantities of marl or lime mixed with sand, or like quantities of sandy loam, and by thorough draining. The opposite extreme, however, of light, sandy, poor soils, unless well mixed with clayey marl, turfy, loamy sods, lime, or decomposed vegetable soil from the woods, is also bad. The most suitable soil, is that deep, rich, loamy, gravelly, porous and well-drained soil, well mixed with lime and gypsum, such as we see so much of in Western New York. In fact, any soil that will grow first-rate winter wheat, will grow grapes. The best situation, therefore, is the south side of a gently-rising hill, well sheltered all around on the north and north-east by some higher hills or distant woods.

It may so happen that a gentleman may want to plant a vineyard who has not the desired kind of soil. I would then say, choose the best you have, and add the necessary constituents to make it good.

every man who has a rod of ground should plant grape vine, and plant as many as he has room for, or can afford to plant. No other fruit-bearing plant will so well repay any one for care or neglect. An abundance of luscious fruit is as easily kept fresh through the winter as any other fruit, and it makes excellent preserves, and is easily manufactured into wholesome wine.

#### PREPARATION OF THE GROUND.

There are but very few vineyards properly prepared in America. Labor is so very high in this country, as to make it seem almost out of the question to properly prepare a vineyard. There are very few gentlemen in this country wishing to plant out a vineyard, who have the courage to lay it out for labor seventy-five or one hundred dollars per acre, for trenching and turning up the soil one. And yet it is absolutely necessary to the thrift and longevity of the vines, that the ground be trenched and broken up three or four feet in depth. In Europe, many of the best vineyards are trenched to the depth of three, four, and even five feet. The ground is trenched the fall previous to planting, and not unfrequently has been prepared by seeding down with clover two or three years preceding the time of trenching, and has had one or two good coatings of gypsum and manure.

Should the ground be at all wet or springy, it will be absolutely necessary to thoroughly under-drain it before planting. This is, perhaps, best done before the trenching or plowing. The main drains should be laid thirty, forty or fifty yards apart, according to the state of the land, whether it be very wet, or only a little springy. The main drains should be laid up and down the hill, coming out into an open ditch at the bottom of the hill. The cross drains should run diagonally down the hill into the main drains, and be laid about nine yards apart, and sunk to the depth of three and a half to four feet. This running down the hill gives an impetus to the water that will clear out any sediment that may collect in the pipes.

Few persons are fully aware of the importance of thorough drainage as a means of meliorating the soil, and none but those who have witnessed its results can fully appreciate its great benefits. By draining, the soil is kept from being too wet, and also preserved from the ill effects of severe drouth—it is warmed by the summer showers, which, instead of running off over the surface and washing away the soil, soaks to the bottom of the loose earth, and the superabundant water is carried off through the drains, leaving its rich gases, which have been collected in falling through the air, in the soil for the young absorbents of the plants. In excessive dry weather, moisture is drawn from the depths of the soil by capillary attraction, thereby keeping it moist to the very surface, and preserving the plants in health and vigor in the most protracted drouths. Where ground is thoroughly drained, plants are not so likely to be affected by winter heaving; the soil becomes dry and warm much earlier in the spring, and the plants commence a vigorous root action one or two weeks before the buds begin to burst; they are thereby better enabled to force and sustain a more vigorous growth of foliage when it does start; the wood becomes more thoroughly ripened in the fall, and is better fitted to stand severe winter freezing.

The ground intended for a vineyard should receive a good manuring the year previous to planting, to be turned in and thoroughly mixed with the soil in the trenching—either a good coating of lime, where that kind of manure is wanting (which will not be if there be much lime rock in the soil), or a good application of gypsum, where it can be had, or a good coating of barn-yard manure, decomposed vegetable mold from the woods, turf sods, the cleanings-out of ditches, street scrapings and sweepings, or a good clover sod plowed in previous to trenching.

When the ground is thus prepared, it will be ready to commence the trenching. Stretch a line across the ground, and mark out a trench four feet wide and the whole length of the piece to be trenched. Then dig out the soil the whole width of the trench, and two to three or four feet deep, according to the depth it is intended to be trenched, and with the teams draw the soil to the opposite side of the vineyard, where the trenching will be completed. This soil is to fill in the last trench at finishing, to complete the work. When the first trench is completed, mark out a second four feet wide, as before. Now dig the surface soil of the second trench to the depth of one foot, or as deep as the best steel spades can be made to dig, setting them as nearly perpendicular as possible. Throw the top soil of the second trench into the bottom of the first; then, with a shovel, scrape up all the loose earth that fell from the spade in digging the first spit of the second trench, and throw it into the first. This done, next dig the subsoil of the second trench one foot deeper, and throw it into the first trench upon the top soil that was thrown from the second. Scrape up all the crumbs, as before, and throw them on top of the subsoil. If the ground is to be trenched only two spades deep, then loosen up the bottom soil with the pick as far as the pick can be sent in, throwing out all the large stones as you work along. If the ground is to be trenched three or four feet deep, this last picking will not be so necessary. If there are large quantities of vegetable refuse at hand, such as grass, weeds, rotten leaves, straw, clippings of hedges, or very small brushwood, it may be thrown into the bottom of the trenches as they are proceeded with. Let this trenching be done well, for remember that this will be the last opportunity you will ever have of doing it; and I apprehend no one will deny that it is always better to have a small vineyard done well, than to have a large one managed badly. It may be objected to by some persons, that the surface soil should be thrown into the bottom of the trench, and the subsoil upon the top to plant the young vines in; but when it is remembered that the young vines will soon root down into the good soil below, and that the surface soil will become better every year by applications of manure or compost and cultivation, I think those objections will soon vanish. Let the third and fourth trenches be done as the first and second, and so on through the piece.

If the vineyard to be trenched be a very steep hill-side, it will require terracing. This is best done by beginning at the foot of the hill. Stretch a line as a guide, and commence by trenching as on level ground. The soil thrown from the first trench will not require to be drawn away, but merely turned over and made level, so as to form a terrace,

or bench. The width of these terraces will depend upon the declivity of the hill-side; and they will require some kind of walling, or sodding, to keep them up, so as to prevent heavy rains from creating currents and washing down the soil. If the ground be thoroughly trenched, there will be found, in most hills, stone enough to do the walling; but where there is not stone enough, the embankments may be kept up by covering them with sods. The embankments should stand out a little at the foot, or falling back towards the hill, so as to prevent sliding down as much as possible, and the sods cut in the form of a rhomb. They then have a mechanical power of holding each other up, which they lose when cut perfectly square; and the trouble of cutting the one is the same as that of the other. To get the sods of the desired shape, stretch a line across the turf to be cut, and make a cut therein with the spade or racer to the depth of two or three inches. Then move the line, and make another cut twelve or fifteen inches from, and parallel with, the first, and so on until a number are cut. Then stretch the line diagonally across these cuts, and at the same distances, and cut as before. This gives the sod the desired shape, and, when put up, all to fit. When laid up, they

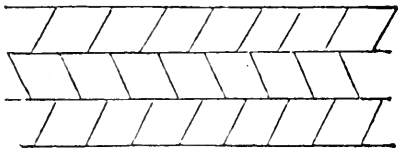


FIG. 1.

will somewhat resemble fig. 1. Should there be any danger of the sods sliding down after this, they can be fastened up with wooden pegs, say a foot long and an inch in diameter, and driven through the sod into the bank. But sods are not as good as stones; the grass tends to create damp during the night, and its roots growing in the bank absorb a great deal of moisture and nourishment from the earth that properly belongs to the vines. Stones do not do this, but they absorb a great deal of warmth from the sun during the day, and give it off slowly during the night, thereby tending to keep the earth and atmosphere warmer through the night. These walls, if properly laid up, will last as long as the vines. And if the trenching be thoroughly done, and the vines carefully managed, I see no reason why they should not continue to thrive and be remunerative for a hundred years; since we know there are vines still in existence upwards of two hundred years old, and bearing nearly a ton of grapes to a vine every year—among which is the large *Hamburgh* vine at Hampton Court, near London, England, which frequently bears from two thousand five hundred to two thousand six hundred bunches, weighing from one thousand six hundred to two thousand pounds—although it can hardly be expected such vines will be grown in the open air.

There are other modes of preparing the ground than trenching with the spade. The next best is to plow the ground with a large plow, and follow in the open furrow with a subsoil plow, thereby breaking the ground to the depth of eighteen to twenty-four inches. Next to subsoiling, will be good, deep

plowing; and next to that, merely digging large holes, and planting in a good compost mixed with the soil out of the holes.

The trenching, as first recommended, in ordinary soils, will cost from seventy-five to one hundred dollars per acre; and trenching two spades deep, without throwing out the loose earth, about fifty dollars per acre. The plowing with large plows and heavy teams, and subsoiling, will cost about twenty-five dollars per acre; and merely digging holes, or good plowing, will cost from ten dollars to fifteen dollars per acre—but this will depend on the character of the soil, and the number of holes to be dug.

The best time to prepare the ground is in the fall previous to planting in the spring. This should be done in fine, open, dry weather; for when done in wet weather, the ground becomes trodden into slimy, pasty clods, which, in some soils, when they have become dried and buried beneath the surface, are almost impervious to air and water. And the ground should be left in as rough a state as possible all winter; for the rougher the soil, the greater will be the surface exposed to the atmosphere to be acted upon and pulverized by the winter's freezing, and enriched by the rich gases and salts which have been collected by the rains and snows, in winter, in falling through the atmosphere.

Rochester, N. Y., Jan'y, 1859.

JOSIAH SALTER.

#### THE VINEYARDS OF THE RHINE.

The *Scottish Quarterly Journal of Agriculture* contains an interesting article on "Rhenish Wine and Rhineland," a few extracts from which we think will be acceptable to the readers of the *Genesee Farmer*.

The writer visited the most celebrated vineyards on the Rhine, in 1855, and again in the summer of 1857. In 1855, the crop was almost a universal failure, owing to the late frosts in April destroying the fruit-bearing shoots of the vine; while in 1857 the vines were loaded with an exuberance of fully ripened fruit. In 1855, search had to be made among the luxuriant green leaves for a bunch of grapes, and, when found, the fruit proved diminutive and unripe. In 1857, on the other hand, bunch was suspended over and beside bunch in such profusion that surprise was excited that so small a plant as the pruned vine was able to bear so large a quantity of fruit as far to outweigh the weight of the plant itself, and which it could not have done without ample support. Everywhere the grape was presented to the tourist, in inviting bunches of red and white, at the low cost of six kreutzers (four cents) the bunch. The writer states that he ate grapes grown in the open air on the banks of Lake Como "of much finer fragrance than from any viney in the United Kingdom."

"In every respect the vine is a remarkable plant. No one could anticipate, on first seeing a vine-plant

without leaves, that its dry, withered, wiry stem, could produce elegantly-formed expansive leaves and beautiful bunches of fruit of large size and weight, suspended as they are from the most frail-looking tendrils; but, notwithstanding its shrivelled aspect, the vine is a plant exceedingly susceptible of external influences. Color, size, form, taste, aroma, productiveness, vary in a remarkable degree with a change of soil, position, and temperature. It is, therefore, no matter of surprise that the grapes of the sunny side of Johannisberg should be very superior in flavor to those of the north-facing slopes on the opposite bank of the Rhine."

The practice of concealing the bunches of grapes from the direct rays of the sun, behind screens formed of growing leaves, and at the same time leaving them open to light, was quite common. The direct rays of the sun foster by their *heat* the acid principle of the grapes by increasing the amount of tartaric acid; and it does so more decidedly in the red than the white grape, because the dark color absorbs the heat more readily; while the *light* of the sun, passing easily through the white skin, evolves the saccharine principle in the white grape in a greater degree than in the red, and thus brings each kind ripe nearer at the same time—an important point in wine-making. Protection from the direct rays of the sun also improves the flavor of the fruit.

Fetid manures exercise a very prejudicial influence on the odor of the wine; while such as are inodorous and decay slowly, such as wool, horn, and bone-black, conduce very much to enhance its fragrance.

"The leaves of the vine, which contain a considerable quantity of alkali, constitute an excellent manure for the plant. At the vintage, only the fruit is removed from the vineyard; and when the leaves fall to the ground, their constituents necessarily compose the best manure for future vine leaves. Only in this manner can the fact be explained that the vine requires little inorganic manure, and often contents itself with substances which it obtains principally from the weather-beaten rocks on whose slopes it is planted."

We believe it is now conceded that grave vines are not particularly benefited by the application of inorganic manures, such as potash, soda, etc. It is only one of many facts going to show that the composition of any particular plant is no certain indication of the kind of manure most needed for its growth. Potash enters largely into the composition of the wood, leaves, and fruit of the grape; and therefore it has been supposed that its cultivation would soon exhaust the soil of potash. But while it is true that nearly one half of the ash of the entire grave vine is potash, yet the growth of grapes does not remove from an acre of soil so

much potash as many of our farm crops. Potatoes, turnips, etc., remove nearly double the quantity that grapes do, and yet even these plants are not particularly benefited by the application of potash as a manure. Manures rich in ammonia and phosphoric acid appear to be best suited for the growth of grapes.

"The full ripening of the fruit by the action of the sun is of the greatest importance in order to secure good wine. On this account the vines are not allowed to grow high, but the nearer they are kept to the ground the better, in order that the heat of the sun may be reflected back upon them from the ground, and the process of ripening is then carried through the evenings and nights by the warmth which is radiated from the earth. The vines are not kept short to obtain a greater quantity of grape-juice, for those which are allowed to grow six feet and upward yield a larger quantity of juice, but their wine is worse than from the short vines in the same place."

THE AGRICULTURE OF THE RHINELAND, says the same writer, has improved amazingly of late.

"A few years ago, the land was generally in a very foul state with weeds; now it is much cleaner, and now also the manure is applied in large quantities. The manure is all from the farm-yard, the stock being constantly kept in the homestead. The crops are mostly of rye and oats, the rye affording the ordinary food to the population, and the oats to both man and beast. Wheat is now raised in increasing quantities, and so is barley. Red clover is cultivated with success as a forage plant. The peculiar crops are mangel wurzel, kohlrabi, scarlet clover, and Indian corn, all of which grow luxuriantly. Potatoes are largely cultivated, and ruta бага may frequently be seen. But the most striking feature in the change of Rhineland agriculture is the great extension of the cultivation of fruit trees. These are not planted in masses like our orchards, but along the highways, and at stated distances in rows in the cultivated land. The ordinary fruits cultivated are apples and pears, both for eating, though the old apple trees had been planted for the purpose of making cider. Cherry trees are common, and so are walnut; but the increasing culture in fruit is in plums, and of these the *Mirabelle* seems the favorite. This is a small, somewhat oblong, yellow-colored plum, sweet to the taste, and capable of being eaten ripe, or preserved for compôtes. The trees are pruned so as to allow the plowing under the lowest trenches. A new orchard of *Mirabelle* plums, consisting of five thousand trees, has lately been planted in the neighborhood of Kronthal; and on surveying the country from the heights, it is fast being covered over with fruit-trees, which, in addition to the forests which are raised for fuel, will ere long give it a wooded aspect.

PLANTS breathe. The respiratory organs are in the leaves—the upper side inhaling and the under side exhaling. This can be seen by applying a cabbage leaf to a blister. Place the upper side next to the blister, and it will *draw*; place the under side next to it, and no effect is produced.

## VINE AND FRUIT GROWING IN MISSOURI.

THE State of Missouri, in its Eastern and Southern section, is a natural vine growing region.—Thousands of wild vines are growing all over its hills and valleys; many of the grapes yielding a wine that is valuable for making claret, and much liked by the Germans in its native purity. Thousands of bushels of the grapes are gathered from these wild vines, one bushel of which it is estimated will make about three gallons of wine, which sells at about fifty cents a gallon from the press.

Seeing the natural adaptation of the soil and climate to the growth of the Vine, WM. GLASGOW, Jr., Esq., now President of the Wine Grower's Association, about fourteen years since made the first plantation of the *Catawba* grape vine, for the purpose of wine making; and it is from his example, and the foundation of the Wine Grower's Association, that attention has been so extensively given to the subject.

Vine-growing for Wine purposes has now become a fixed fact here. Already it is estimated that there are, within sixty miles of St. Louis, nearly eight hundred acres successfully cultivated, yielding from two to four hundred dollars a year per acre. Add to this, large vineyards, that are as yet only one or two years old, and you will gather a tithe of the reality of vine-growing in this region.

Vine-growers, and owners of lands generally, are inquiring constantly as to the most successful practices of culture, their costs, and the prospects of pecuniary success. I have just been reading a little essay on vine-growing, by CHAS. H. HAVEN, Esq., of Melrose, St. Louis County, wherein the advantages and profits of Vineyards are well and ably considered, without, as is to often the case, extravagant deductions.

The *Catawba* is about the only grape vine grown to any extent; and if the grower prefers selling his grapes to making wine, he can always find a purchaser in the Wine-Grower's Company, at from seven to ten cents a pound—equal to about one dollar a gallon for the juice.

The best vintners here prepare their grounds in the summer or early fall, and make their plantings in the fall. In fact, nearly everything does better, I am told, to be transplanted in the fall of the year.

While upon Wine, let me tell you of some samples made from rhubarb. The first was made by S. FRANCIS, Esq., the able Secretary of the Illinois State Agricultural Society, only a year (or two perhaps) old; and although pleasant, and without taste of rhubarb, was not superior as a wine. I think it only requires age to make a good heavy wine. The second sample was made by WM. GLASGOW, Jr., of St. Louis, seven years since; and although carelessly corked, I found it closely to resemble a Spanish wine that I believe is called *Mansinello*. I think that very little sugar should be used in making rhubarb wine, and that it wants age ere it is really desirable to drink. For cooking purposes it will be policy to add more sugar, and thus add to its spirit. If you want a receipt for making, I can send you one.

I daily watch the fruit markets, and occasionally visit the country a few miles out, to examine the success of different varieties, and frequently I am troubled to recognize even old acquaintances, so much does soil and climate change their characters.

The past season having been quite wet, we are favored with large fruit, most beautifully and highly colored.

*Maiden's Blush* and old *Keswick Codlin* are two among the most profitable sorts grown. *Yellow Belleflower*, *Ortley* or *White Belleflower*, and even *Prior's Red* are now retailing in market for eating. They are of course only worm ripened; but the varieties are all fit for eating this month, yet they will keep until January. *Fall Pippin* and *Porter* do admirably here. So also *Rambo*, *Smith's Cider* and *Newtown Pippin*.

The old *Pennock*, or *Big Romanite* as it is here called, are wagoned in by the load, and, like potatoes, rolled out, barrelled, and shipped in great quantities. It is profitable business, the trees being great bearers.

Good Pears are not in this market, but there are many native Pears from old trees planted by the early French Settlers. Occasionally I have found one that would pass as good, but generally they are too austere. The Pear does finely here, both as a standard and on Quince; but growers, so far as I have seen, no nothing of pruning, nor do they mulch; and this is the climate of all others, where mulching will prove profitable. There are a good many bearing trees of choice Pears in gentlemen's gardens here, which evidence the success that will attend good culture.

You may look to Missouri as the future garden of the West and South.

ELLIOTT.

St. Louis, Mo., Dec., 1858.

## HORTICULTURAL NOTES FOR THE MONTH.

THERE is not much that can be done in the garden this month, save making preparations for the coming busy month.

At this time hot-bed frames and sashes should be brought out, washed, painted and mended, and put in order for use the next month. A sufficient portion of manure, fresh from the stable, should at once be got together, and laid in some sheltered place to ferment—either in a shed away from wind and snow, or well covered with some old boards. In six or eight days it will require turning and shaking, and well mixing together. This is necessary, in order that it be all in an equal state of fermentation. Directions for making the hot-beds will be given next month.

About the middle of the month is a good time to prune the hardy grape vines, gooseberries, and currants. Gooseberry trees bear their fruit both upon the new and old wood. All the little, twiggy pieces of wood should be cut out of the body of the tree to about one inch in length, forming little fruit spurs, which will become permanent bearing spurs. Where the trees are desired to increase in size, the leading branches should be cut back to five or six inches in length of the new wood.

Currants may be pruned as above, but they bear mostly upon wood of two years' growth or more. All the fruit-bearing spurs upon the main branches must, therefore, be carefully preserved.

Rochester, February, 1859.

JOSIAH SALTER.

THE quince will bear a greater amount of salt than almost any other tree. Every fall, after the leaves have fallen, fork in five or six shovelfuls of fresh manure from the stable, about the roots.



## RENOVATING OLD APPTÉ ORCHARDS.

"WHAT can I do with my Apple trees?" asks a Suffolk correspondent; "they are old trees in an old orchard. At one time their fruit was good and fit for market; but now, and for many years past, they are cankered and mossy, and weak, and their fruit is for the most part unsaleable. My gardener says that this has been caused by neglect of pruning scientifically. Is this so? What is meant by pruning scientifically? I am rather afraid of so great a word from the mouth of a man who, although a worthy young fellow, seems to me to have nothing scientific about him. And besides I remember being told when in Normandy that although the fruit trees in that Apple country, when pruned upon scientific principles, were beautiful specimens of art, yet that they had the fault of bearing very little fruit."

We fear that our Suffolk friend will find little favor in the eyes of those gardeners who believe that all manner of virtue resides in a pruning knife and narrow saw, and whose greatest pride is to cut their trees into wonderfully regular forms. And yet he is justified in his apprehensions; for there can be no doubt that more harm is done by over-pruning, which is too often meant by "scientific" pruning, than can arise from leaving trees to the undisturbed operation of natural processes. In the latter case indeed fruit may be small and bad; but in the former it is as likely to be altogether absent, while the health of trees is irretrievably ruined.

There is no branch of gardening in which experienced or fanciful persons do more harm than in pruning. They seem to forget that fruit trees are grown for the sake of their fruit and not as objects of decoration, and that three ends, and three only, are to be gained by the operation; that is to say, increase of quantity, improvement of quality, and better ripening. Nothing but skilful pruning will effect these purposes; unskilful, in which is to be included unnecessary pruning, has a directly opposite tendency. In short, the golden rule in this case is NOT TO PRUNE AT ALL IF IT CAN BE AVOIDED. Pruning, however, is unavoidable; but it should be had recourse to as little as possible.—As to overpruning, it is we repeat far worse than no pruning at all. One thing is certain, that the more Apple trees are pruned the less they bear; and the same may be said of pear trees.

The author of one of our best practical works, having described how an Apple tree should be managed for the first three or four years, remarks, "after this nothing more will be necessary than to look them (the trees) over from time to time, *cutting out carefully any superabundant branches* that may appear, particularly those which have a tendency to injure the proper figure of the head, or are likely to become stronger than the rest: these latter, if suffered to remain, will injure any description of tree, whether it be a standard, an espalier, or whether it be trained against a wall. This is the best advice that can be given to those who have the management of Apple trees in an orchard. It is like the worthy Mr. GLASSE's instructions to "let them alone." But our Suffolk correspondent's trees are in a state of ruin. They seem to be like the Devonshire trees, which Mr. BELFIED describes "with heads tangled and matted together so as to set both sun and air at defiance; live wood strug-

gling for existence amongst the dead, and all hoary with Moss and premature old age."

With such trees the pruning knife and saw must be used unsparingly; and if that is what our Suffolk correspondent's gardener means by "scientifically" we agree with him. Not that there is much science in the operation. The *first* thing to do is to cut down to the quick every dead branch, limb or spur; they can do no good, and are mischievous on account of the interruption they offer to sun and air, which are as necessary to the tree as to the gardener. Until that has been done live wood should remain untouched. *Secondly*, as soon as the dead wood is gone, and the gardener can see *distinctly* what he has to work upon, he should prune out every shoot that whips or crosses or rubs against another, so as to leave plenty of room between the shoots; a foot is not too much. In doing this the weakest shoots should be removed. *Thirdly*, all the thinning having been done, the end of each branch should be stopped by removing more or less of it according to its strength. *Fourthly*, after the stopping all loose bark and Moss should be scraped off the branches and main stem with the blade of an old hoe or some such blunt edge, and the scrapings should be burnt. In this way alone can insects with their eggs be destroyed with certainty. Such scrapings can do no harm; and in addition to the removal of insects it enables the tree to breathe more freely, a very important matter, for the living bark is as much a portion of an Apple tree's lungs as the leaves are. This done, skill can go no further, and it is only necessary afterwards to leave the tree to its vital powers; watching however how the new shoots grow, and cutting out from time to time all such as in any way whip, chafe, or cross each other.

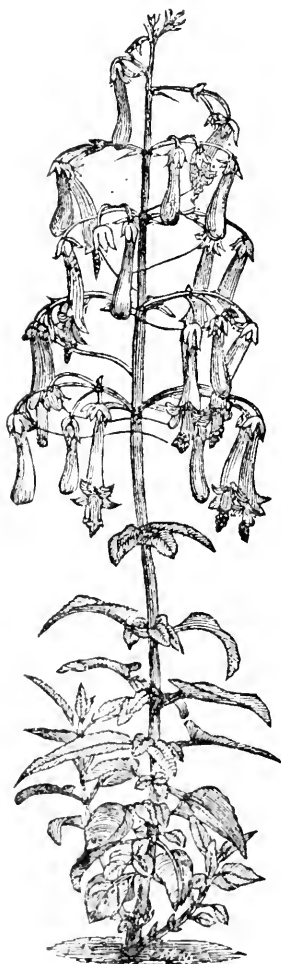
In these remarks the state of the soil is not noticed. If however there is any doubt about its being thoroughly drained, that also must be carefully looked to, for no Apple trees can retain their health in waterlogged ground. Neither can they prosper when soil is exhausted of all its nutritive matter. When that is the case weak manure, such as plenty of decayed leaf-mould, burnt weeds, or any similiar material should be employed. Strong ammoniacal manure is to be avoided.—*Gardener's Chronicle.*

EARLY RIPENING GRAPES.—To those of our readers who have *Isabella* or other grape vines that do not ripen their fruit, we commend the experiment of F. AORN, Esq., of Augusta, Maine, as given in the Maine Farmer:

"A few years since, a neighbor of mine had a vine in his garden. The ground was kept rich and it had the whole garden to gather nourishment from but it would not bear, and he told me that if I would dig it up I might have it. I did so, and pulled it apart, and made four roots of it. I then dug holes snug to my cellar wall just large enough to put in an old barrel without heads, one in each hole, into which I put some leather scraps, a few bones, and rich earth, and then set a root into each barrel. The grapes on these vines have got ripe, while those having the advantage of a wide, rich border, are like those the fox couldn't reach."

### THE PHYGELIUS CAPENSIS.

DURING the past season we have had introduced to our notice a new flowering plant, the *Phygelius capensis*, which promises to take a prominent position in our flower beds. It was grown and flowered here, last summer, by Mr. WM. BRIMS, gardener to AARON ERICKSON, Esq., who considers it an invaluable acquisition as a bedding-out plant. The following engraving and description from *Hovey's Magazine* will enable the reader to form a tolerably correct idea of it:



PHYGELIUS CAPENSIS.

"The *Phygelius capensis* is quite hardy in Great Britain, but requires the protection of a frame in our more severe climate. It is a native of the Cape of Good Hope, where it was found on the Witbergen Mountains by M. DREGE, a German collector. In general appearance it resembles a Pentstemon, with a foliage like some of the *Salvias*. It is perennial. The stem is erect, branched at the base, quad-

angular, and grows to the height of three feet. The leaves are oval, cordiform, and crenulate on the edges, nearly two inches long, and supported by a short peduncle. The stem is terminated with a large panicle of tubular, bell-shaped, scarlet flowers, which are suspended in a manner extremely graceful. The limb of the corolla is divided into five lobes.

The *Phygelius* is a very great addition to our gardens, and is destined to become one of the most popular and admired bedding plants, flowering as freely as the *Salvia*, and possessing the advantage over it of being nearly hardy, and withstanding rougher treatment during winter; while its showy reddish-scarlet flowers, displayed in great profusion till severe frosts injure their beauty, render it invaluable as a late-blooming plant. Our specimens, the present year, were planted out in the open border in June, where they were one mass of bloom throughout the autumn. In October they were taken up, potted, and placed in a cool greenhouse, and they are now, Nov. 20th, still flowering, forming a pretty contrast with the *Chrysanthemums*, *Veronicas*, and other plants, which decorate the conservatory at this season.

The propagation and cultivation of the *Phygelius* is very simple. Young plants may be raised from cuttings in March or April, in the same manner as the *Salvia*. These should be potted off, as soon as rooted, in a good compost of loam, leaf mold, and a sprinkling of sand, keeping the young plants in a half-shady situation until they acquire strength, when they may have a shift into larger pots, and be gradually hardened off in frames. In May, or as soon as all danger of frost is over, they may be turned out into the open border, where they will bloom from August until October.

Upon the approach of hard frosts, the plants should be taken up and potted carefully, and placed in the greenhouse or parlor, where they will continue in beauty for a long time. When their flowering is over, the tops may be cut down to within a few inches of the root, and the plants removed to within a few inches of the root, and the plants removed to a cold frame, a cool cellar, or the coolest part of the greenhouse. Here they will need but little attention till the returning season, when they may be again turned out in the open ground, and the second year will form very large and superb specimens, enlivening the border with their gay little scarlet bells, when the early frosts have cut off many of the more tender flowers.

As a pot plant, we doubt not it would form a fine object for the decoration of the greenhouse, grown with the same skill that *Chrysanthemums* and similar plants are now cultivated."

DWARF PEARS.—The *Country Gentleman* says: "We have repeatedly laid down this rule as a guide, that no one should plant extensively of dwarfs who was not satisfied by previous experiment or by observation among his neighbors, first, that the climate is adapted to their growth; secondly, that the soil is right; thirdly, that the stocks are of the best sort; fourthly, that the cultivation is as good as carrots and cabbages usually receive."



## Ladies' Department.

### ORIGINAL DOMESTIC RECEIPTS.

[Written for the Genesee Farmer by various Correspondents.]

**BUTTERNUT PIE.**—One quart of milk, two eggs, a coffee-cupful of pulverized butternut meats, and a little sugar and nutmeg.

**TO REMOVE INK FROM LINEN.**—Dip the soiled part in pure melted tallow. Wash out the tallow, and the ink stain will be removed with it.

**ALMOND CUSTARDS.**—Blanch a quarter of a pound of almonds, beat fine; add a pint of cream, two spoonfuls of rose water, and the yolks of four eggs. Sugar to taste.

**WIGGS.**—Half a pint of warm milk, three-quarters of a pound of flour, three spoonfuls of yeast. Let it rise, and work into it four ounces each of sugar and butter, and a few caraway seeds. Bake quick.

**AN EXCELLENT COMMON FRIED CAKE.**—One cupful of sugar, one cupful of cream, three eggs, some cinnamon or nutmeg, and a tea-spoonful of saleratus. Cut in jumbles or in strips, and twist and fry in lard.

**DOUGHNUTS WITHOUT YEAST.**—One cupful of sugar, two eggs, one cupful of fresh butter, three cupfuls of buttermilk, flour enough to form a dough (not too stiff), and one tea-spoonful of saleratus. Fry in lard.

**BANNOCK.**—Two cupfuls of meal, two cupfuls of flour, one tea-spoonful of salt, one tea-spoonful of ginger, and four spoonfuls of molasses. Wet up with buttermilk, adding a tea-spoonful of saleratus. Bake one hour.

**MILK TOAST.**—Boil a pint of rich milk with a table-spoonful of butter, and one of flour. Have ready, in a dish, eight or ten slices of bread, toasted. Pour the milk over them hot, and cover it until it goes to the table.

**HOW TO RENDER LADIES' DRESSES NON-COMBUSTIBLE.**—Add a little powdered alum to the starch used in preparing them. The alum will prevent them from bursting into flame when placed in contact with any burning substance.

**LOWELL BROWN BREAD (Capital).**—Three tea-cupfuls of Indian meal, two tea-cupfuls of rye, one-half a tea-cupful of molasses, one tea-spoonful of salt, and one tea-spoonful of saleratus. Mix in one quart of new milk. Bake two hours.

**BAKED INDIAN PUDDING.**—Take three pints of new milk, and scald half of it. Stir in meal until quite thick; then add the remainder of the milk. Beat four eggs, and stir into the batter. Spice and sweeten to taste, and bake two hours.

**RAISED BISCUIT.**—To three pints of sifted flour, add one quart of boiling milk. When milk-warm, stir into the batter one cupful of potato or home-brewed yeast, and a tea-spoonful of salt. When light, add one tea-spoonful of soda, four spoonfuls of melted butter, two table-spoonfuls of white sugar, with flour stiff enough to mold. Make into small cakes. When light, bake in a quick oven.

**CREAM BISCUIT.**—Four tea-cupfuls of cream, one tea-spoonful of saleratus, dissolved in a cupful of milk. Both milk and cream should be sweet, or both sour. Add one egg, if you choose. Mix soft as you can, and not mold it much. Bake in a quick oven.

**COOKIES.**—One cupful of butter, two cupfuls of sugar, four eggs, two table-spoonfuls of sour milk, and one tea-spoonful of saleratus, dissolved in the milk. Do not work them stiff, only so as to roll. Bake in a moderate oven. When half done, strew them with grated loaf sugar.

**CRULLERS.**—One cupful of sugar, one cupful of milk, half a cupful of butter, two table-spoonfuls of cream (if not too thick and rich—if rich, one table-spoonful is sufficient), two beaten eggs, and one tea-spoonful of saleratus. Work well, but not stiff—only so as to roll. Fry fast.

**RICE PUDDING, WITH OR WITHOUT RAISINS.**—One pint of cooked rice, one pint of milk, one tea-spoonful of salt, and the yolks of four eggs. Bake till done; then add the whites of the eggs, beaten to a froth, with four table-spoonfuls of sugar. Bake again five minutes. Serve with liquid sauce.

**BROWN BREAD WITHOUT YEAST.**—One quart of Indian meal, one pint of white or brown flour, one tea-spoonful of salt, one-half a cupful of molasses, and one tea-spoonful of soda, dissolved in hot water, stirred into one quart of sour milk, warmed. Beat all together into a batter, and bake slowly two hours.

**INDIAN MEAL PUFFS.**—Into one quart of boiling milk stir eight table-spoonfuls of meal, and four spoonfuls of sugar. Boil five minutes, stirring constantly. When cool, add six well-beaten eggs. Bake in buttered cups half an hour. Try them with a little butter and maple molasses, and see if they are not good.

**GINGER NUTS.**—Ten cupfuls of flour, three cupfuls of molasses, one cupful of melted butter or pork gravy (it is good half and half), one cupful of sour cream, two table-spoonfuls of saleratus, dissolved in half a cupful of warm water, and one table-spoonful of ginger. Make soft as can be rolled, and bake quick. This keeps well.

**DROP BISCUIT.**—One quart of sifted flour, one tea-spoonful of salt, one beaten egg, one small tea-spoonful of soda, dissolved in a little hot water, one cupful of cream, two cupfuls of sour milk, or buttermilk, and a spoonful or two of white sugar. Stir thoroughly to a thick batter. Drop with a spoon on buttered tins. Bake in a quick oven.

**RABBITS AND RACCOONS** can be made excellent by dressing nicely, and soaking over night in a plenty of cold water. Then parboil in fresh water; then boil in a second water, with some salt and saleratus. When tender, take out to cool; then cut off the fat, and cut the meat into nice slices. Then heat some butter in a frying-pan, place in the slices, sprinkle on salt and pepper, and fry slowly till a delicate brown. This way of preparing them removes all the wild taste, making the meat perfectly sweet, tender and nutritious. By trying and straining the fat, you have a nice, white oil.



### New Advertisements this Month.

American Seed Store.—J. O. Bloss & Co., Rochester, N. Y., and Detroit, Mich.

Spring Garden Seeds.—J. M. Thorburn & Co., New York.

Catalogue of Seeds.—J. M. Thorburn & Co., New York.

Young America Corn Sheller.—Leavenworth & Mason, Rochester, N. Y.

Share's Coulter Harrow, or Pulverizer.—Pease & Eggleston, Albany, N. Y.

The Hooker Strawberry.—H. E. Hooker & Co., Rochester, N. Y.

Grapes by Mail.—C. P. Bissell & Salter, Rochester, N. Y.

Apple Seedlings, and Angers Quince Stocks.—Chas. Moulson, Rochester, N. Y.

Cherry Trees for Sale on Time.—J. D. Conklin, Locke, N. Y.

Chester Co. White Hogs.—Thomas Wood, Penningtonville, Pa.

Poultry for Sale.—S. Smith, Darien Depot, Conn.

New York State Agricultural Society.—Annual Meeting.

**JANUARY PREMIUMS.**—Our January Premiums for the greatest number of subscribers sent in on or before the 15th of January, have been taken as follows:

1. G. B. Whiteside, Brockport, N. Y.,	\$20 for 116 subs.
2. Jonathan Miller, Berrysburgh, Pa.,	19 " 107 "
3. I. W. Briggs, West Macedon, N. Y.,	18 " 97 "
4. W. Hibbard, Manchester Station, Ct.,	17 " 88 "
5. B. W. Vansise, Waterford, Pa.,	16 " 74 "
6. R. W. Sawtell, Woodstock, C. W.,	15 " 70 "
7. G. Converse, Wilksbarre, Pa.,	14 " 60 "
8. Chas. Howard, Hamilton, C. W.,	13 " 55 "
9. Edwin Malloy, Fredericksb'g, C. W.,	12 " 49 "
10. George Pattison, Crowland, C. W.,	11 " 40 "
11. Thos. Magee, Johnstown, Pa.,	10 " 39 "
12. John Dorr, Scottsville, N. Y.,	9 " 38 "
13. H. E. Smith, Waterloo, N. Y.,	8 " 37 "
14. Fisher Ames, Frontier, N. Y.,	7 " 36 "
15. H. W. Moyer, Moyer's Corners, C. W.,	6 " 34 "
16. J. J. Scroggs, West Point, Ohio,	5 " 33 "
17. Joshua A. Norrish, Eden Mills, C. W.,	4 " 32 "
18. James Wilkinson, Goderich, C. W.,	3 " 31 "
19. James B. Ross, Metuchin, N. J.,	2 " 30 "
20. R. A. West, Thornhill, C. W.,	1 " 29 "

Our friends can draw on us at sight for the amount, or we will send it by mail or in any other way they may designate.

**APRIL PREMIUMS.**—On page 71, in this number, will be found a liberal list of premiums for the greatest number of subscribers sent in between the 15th of January and the 15th of April.

There is not one of our readers that can not take one of the largest of these premiums. The *Genesee Farmer* is so cheap that few rural residents will refuse to subscribe when personally solicited to do so. Will not each one of our agents continue their disinterested efforts in our behalf? Considering the vast amount of practical information published each month in the *Farmer*, from experienced agricultural and horticultural correspondents, we

think no one will regret having been persuaded to subscribe for it.

We should feel obliged to any of our readers at post-offices where we have no agent, if they would consent to take subscriptions for the *Farmer* and *Rural Annual*. We shall be glad to send them showbills, specimen numbers, &c. All that is needed to obtain a good list of subscribers in any town or village, is some active friend of the cause to show a copy of the paper and request his neighbors to subscribe. Persons residing in places where we have now but few subscribers, have a better chance of taking the April Premiums than those where a large club has been already formed.

**UNPARALLELED SUCCESS OF THE GENESEE FARMER.**—The increase in our circulation thus far, this year, has far exceeded our most sanguine expectations. Our receipts are more than double what they were last year. We have already worked off three large editions of the January number, and the last edition of nine thousand is now so nearly exhausted that we are obliged to work off another edition before the February number goes to press. It may thus be delayed a few days; but we hope in future to have the paper out so early that every subscriber will get it by the first of the month.

For this unexpected prosperity we are mainly indebted to those true friends of the cause who have volunteered to act as agents in obtaining subscriptions. We return them our sincere thanks, and shall endeavor to make the *Farm-er* for 1859 such a paper as no one will regret having recommended to his friends and neighbors.

**NOW IS THE TIME TO GET SUBSCRIBERS.**—The present is an excellent time to get subscribers for the present volume of the *Genesee Farmer*. Unlike a news-paper, the back numbers are as fresh and useful as when first issued. We send this number to a few friends residing in places where we have no subscribers. We shall feel under great obligations to them if they will show the paper to their friends and neighbors, and take and forward subscriptions. Our April Premiums are so numerous, and so few persons compete for them, that a little effort in any of these places will secure a prize. We shall be glad to send showbills, extra numbers for gratuitous distribution, &c.

**ALL PRIZES, AND NO BLANKS.**—By reference to our Premium List, on page 71 of this number, it will be seen that our premiums are more liberal and numerous than ever before. Those who fail of getting the premiums for the greatest number of subscribers, are certain of the Specific Premiums—so that we have all prizes, and no blanks. We wish it distinctly understood, too, that we not only offer, but pay, the premiums. So few compete for our premiums that it does not pay us, but we shall, nevertheless, pay the prizes. Our friends are so disinterested in their efforts to increase our circulation, that they appear to expect no reward for their labors.

**A GOOD EXAMPLE.**—A year ago, we had but one subscriber at Brockport, N. Y. Our friend, G. B. WHITESIDE, thought this was not creditable to the intelligent farmers in that vicinity. So he showed a copy of the paper to his friends, and, by a very little effort, succeeded in getting one hundred and sixteen subscribers. He took the first January Premium, of \$20.

**SOULE'S AND BLUE-STEM WHEAT.**—A Long Island correspondent of the *Country Gentleman* obtained some seed wheat of the Soule's and Blue-Stem varieties from Michigan. The former proved a failure—was late in ripening, of poor quality, and so much injured by the weevil (midge) that it produced not more than half a crop. On the other hand, the *Blue-Stem* succeeded admirably. "It not only yielded a third more than the Mediterranean, but finer wheat never grew in this [Long Island] or any other section." It took the first premium at the Queens County Agricultural Fair.

**TO OUR EXCHANGES.**—We are under great obligations to our brethren of the press for their valuable aid. We could return them our most sincere thanks. Up to this time, over three hundred newspapers in the United States and Canada have given extended notices of the January number—all speaking of it in the highest terms. This manifestation of friendly interest in the success of the *Farmer's Own Paper* is very encouraging. We hope to merit a continuance of their good will.

The Commissioner of Patents invited a number of farmers and horticulturists to meet him at Washington, and advise with the Agricultural Clerk in regard to the distribution of seeds, &c. They met the first week in January, and elected the Hon. M. P. WILDER, of Massachusetts, President. The doings of this "Advisory Board of Agriculture of the Patent Office" appear to have been private, as we have seen no account of them.

**GENESEE VALLEY HORTICULTURAL SOCIETY.**—The Annual Meeting of the Genesee Valley Horticultural Society, for the election of officers, appointing committees for the ensuing year, and transaction of business, will be held at the Court House, in this city, on Monday, February 7th, at 10 o'clock A. M. It is desirable that there should be a general attendance of members, citizens, and all in this vicinity interested in horticulture.

**THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY FOR 1859.**—Every reader of the *Genesee Farmer* should have a copy of this excellent work. It is sent, prepaid by mail, for twenty-five cents. In clubs of eight, the *Genesee Farmer* and *Rural Annual* are sent to any address for fifty cents the two, and an extra *Rural Annual* to the person getting up the club.

An esteemed correspondent at the West writes: "I like the *Farmer*—I feel as if having grown wiser under its teachings and influence—and like it better than of old. The people like it—quote it—respect it and favor it."

The Annual Meeting of the New York State Agricultural Society will be held at the Capitol, in Albany, on Wednesday, Feb. 9th. See advertisement.

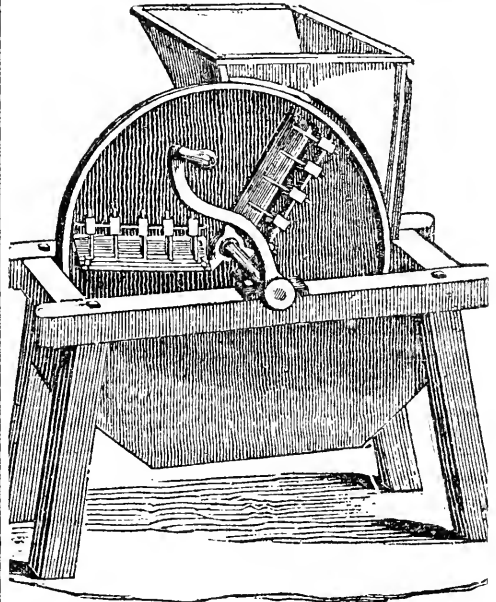
#### Inquiries and Answers.

**CUTTING ROOTS.**—I should like to know the best way, and the best machine, for cutting roots for stock, such as sheep and calves. I have some roots larger than I can slice in my straw cutter, which is only nine inches inside. Have weighed one of the English Hybrid yellow turnips, with top, that went twenty-two pounds. For such, I use the axe. I took a first premium at our County Fair on a squash weighing one hundred and forty-eight pounds. I mention this, that you may know the readers

of the *Genesee Farmer* succeed best.—F. R. D., Wolf Lake, Indiana.

Roots for sheep and calves are best to be cut fine. Many farmers with large flocks, have graters, like the cylinder of a threshing machine, that cut the roots very fine.

The implement most in use is termed a Root Cutter, which is a large circular plate pierced with three slots,



ROOT CUTTER.

into which are fixed blades that slice the root as the plate revolves. These knives have set screws, that graduate the thickness of the slice. Transversely to these blades are a series of small blades, placed near each other, through which the slice is forced in its passage out, and cut into small pieces, or chunks, answering well for feeding cattle, sheep and calves, rendering it the most perfect machine for the purpose with which we are acquainted.

**CORN VS. BEANS FOR SHEEP.**—(P. N. HALL.) The fattening properties of corn and beans are about equal. Beans contain twice as much nitrogen as corn—and, according to the old rule of estimating the nutritious value of foods by their nitrogenous or flesh-forming constituents, fifty pounds of beans would be equal to one hundred pounds of corn. But this rule does not stand the test of experiments, and it is now abandoned by the best chemists, or adopted only with many qualifications. Probably the best practice would be to use a part of each.

There is, however, no doubt on one point—the manure made by sheep fed on beans is much more valuable than that from sheep fed on corn.

**CORN SHELLER.**—(R. S.) You will find the Young America Corn Sheller, manufactured in this city by LEAVENWORTH & MASON, just the thing you want. It is an excellent machine. For further particulars, see advertisement in this number.

**GRAFTING PEACH ON CHERRY.**—(W. S. D.) The peach will not succeed worked on the cherry, under any conditions.

**APPLE STOCKS — SCIONS — GRAFTING — BUDDING.**—(R. McIVER, Cornwall, C. W.) Scions for grafting may be cut any time in November or December, before the weather gets severe, and placed in a cellar until wanted for use.

Apple stocks intended to be grafted, are usually pulled in the fall and laid away in sand, in the root-house or cellar, until they are grafted, which may be done any time during the winter, and the grafts afterwards packed in sand until they are planted. The method of grafting the roots is that known as "whip grafting."

Strong, one-year old stocks, may be planted in nursery rows, and budded the first year.

**WINTER BARLEY.**—(G. P., Crowland, C. W.) Winter barley can be obtained at the seed stores in this city, and has been worth about one dollar per bushel through the fall. Its yield does not differ much from spring barley, and is variable. Some very large crops have been raised, and many farmers esteem it highly.

**BOOK FOR EMIGRANTS.**—(A Subscriber, Hamilton, C. W.) We know of no book that we can recommend you. There are many books written especially for the use of emigrants, but none of them we have seen are of much value. There is much need of such a work.

**SEED OF RED CEDAR.**—Can you inform me where I can obtain the seed of the red cedar? I want to raise some for hedging purposes.—J. W. P., Gorham, N. Y.

**THOS. MEEHAN, of Germantown, Pa., J. M. THORBURN & Co., of New York, and other principal seedsmen of the eastern cities, usually keep a supply of red cedar and other evergreen seeds.**

## REVIEW OF THE MARKETS.

### ROCHESTER MARKET.—January 22.

Our market exhibits very little activity, and prices are little more than nominal.

**FLOUR.**—Common brands, \$5 a \$5.50; good Genesee and Western, \$5.50 a \$6; Double Extra, \$6.50 a \$6.75. Rye Flour, \$2 per hundred. Corn Meal, \$1.25. Buckwheat Flour, \$2.

**GRAIN.**—Wheat—White, choice samples, 125c. a 130c.; Mediterranean, 100c. a 112c. Rye, 63c. a 65c. Corn, 65c. a 68c. Oats, 44c. a 50c. Buckwheat, 44c.

**BEANS.**—Sales of Beans at 63c. a 75c.

**PROVISIONS.**—Dressed Hogs, \$7 a \$7.50. Hams, smoked, 9½c. a 10c. Shoulders, 7½c. a 8c. Beef Carcass, \$5 a \$6.50. Mutton, \$3 a \$5. Butter, 16c. a 18c. Eggs, 16c. Lard, 11c. a 13c. Poultry—Turkeys, 9c. a 10c.; Chickens, 7c. a 8c. Apples—Green, 75c. a 100c.; Dried, 150c. Potatoes, 25c. a 40c.

### NEW YORK MARKET.—January 20.

**GRAIN.**—Wheat—Southern White, 135c. a 150c.; Amber, 137½c.; Red, 134c. a 135c.; Michigan White, 142c. a 145c.; Western Red, 133c. a 135c.; Wisconsin Club (Spring), 105c. a 110c. Eye—Bris, with speculative sales at 90c. a 95c. Barley—Good demand, at 50c. a 51c. Oats—State, 56c. a 60c.; West and Canada, 61c. a 63c. Corn—Market dull; Western, mixed, 87c. a 89c.; Southern Yellow, 86c. a 88c.; Southern, new, 87c. a 88c.

**BEANS.**—Medium, 110c. a 115c.; Marrow, 133c. a 150c.; Kidney, 163c. a 175c.

**FLOUR.**—Superfine State, \$4.55 a \$5; Extra, \$5.50 a \$5.75; Extra Genesee, \$6 a 7.75; Western Superfine, \$4.85 a 5.10; Extra (low grades), \$5.50 a \$5.85; best Ohio Round-hoop, \$6 a \$7; St. Louis, \$6 a \$5.50; Canada, extra, \$6 a \$6.25. Rye Flour, \$3.40 a \$4.10. Corn Meal, \$3.40 a \$4.50.

**PROVISIONS.**—Pork—Market improved; New Mess, \$17.75 a \$18.00; Clear, \$20; Prime Mess, \$15.50; Prime, \$13.25; Hams,

8½c. a 9½c.; Shoulders, 6c. a 6½c. Dressed Hogs, \$7.50 a \$8. Beef in fair demand; Country Prime, \$6.50 a \$7; Mess, \$9 a \$10; Extra Mess, \$11 a \$11.50; Extra Chicago, \$13.00; Beef Hams, \$15.50 a \$16.50. Lard, inferior, 11½c.; Prime, 11½c. a 11¾c. Butter—Ohio, 11c. a 20c.; State, 15c. a 20c. Cheese, 7c. a 9c. Tallow, 10½c. a 10¾c.

**SEEDS.**—Clover active, with large sales, a portion for export, at 10c. a 10½c, equal to \$6 a \$6.90 per bushel. Timothy, \$2.25 a \$2.50 per bushel. Flax, rough, \$1.67½ a \$1.70

### PHILADELPHIA MARKET.—January 20.

**FLOUR.**—Superfine, \$5 a \$5.12½; Extra, \$5.50 a \$5.75; Extra Family, \$6 a \$6.25; Fancy, \$7.25. Rye Flour, \$3.75 a \$3.87½. Corn Meal, \$3.37½.

**GRAIN.**—Wheat—Ordinary to Prime Red, 120c.; Common to Choice White, 130c. a 145c. Rye, Pa., 83c. a 85c.; Southern and Jersey, 75c. a 82c. Corn—Dry Yellow, 71c. a 73c.; Damp, 68c. Old Yellow, 82c. a 84c. Oats—Del., 45½c.; Pa., 46c. a 48c. N. Y. Barley, 80c. a 85c.

**PROVISIONS.**—Dressed Hogs, \$6.75 a \$7.50. Pork—Mess \$17.75 a \$18; Prime, \$16. Beef—Mess, \$15.50 a \$16. Hams, 10½c. a 12c. Sides, 9½c. Shoulders, 7½c. Lard, 11½c. a 12c. Butter 16c. a 22c. for Pa.; 17c. a 23c. for Ohio; Packed, 40c. a 12c.

**SEEDS.**—Clover—Prime, \$5.75 a \$5.87½; Inferior, \$5.02½ for 64 lbs. Timothy scarce, at \$2.12½. Flax Seed, \$1.65 a \$1.70.

**WOOL.**—Sales of 180,000 lbs., as per quality, from 32c. up to 60c., cash.

**CATTLE.**—Beef Cattle—Common to prime brought 7c. a 10c. extra quality, 10½c. a 10¾c. Sheep, \$3 a \$6 per head.

### BUFFALO MARKET.—January 22.

**GRAIN.**—Wheat—Kentucky White, 150c.; Michigan White 127c.; Ohio Red, 120c.; Chicago (Spring), 85c. Corn—Old, 75c. a 76c.; New, 70c. a 72c. Oats—Canada, 50c. Barley—Dull State, 60c. a 65c.; Canada, 70c. a 75c. Rye, 70c.

**PROVISIONS.**—Dressed Hogs, \$6.50 a \$7. Mess Pork, \$16.50 Prime, \$12. Mess Beef, \$10; Prime, \$7. Lard, 10½c. a \$11.

**WOOL.**—Canada pulled, 35c.; Fleece, 35c. a 45c.; Extra pulled, 35c. a 45c.

**SEEDS.**—Clover, \$6 a \$6.25. Timothy, \$1.75 a \$2.25.

### CHICAGO MARKET.—January 20.

**FLOUR.**—Extra (Spring), \$4.50; Common, \$4.25; Winter, extra, \$5 a \$6.25.

**GRAIN.**—Wheat—Standard, 74c.; No. 2, 72c. a 73c.; Inferior 60c. a 65c.; Red Winter, 110c. Corn—Shelled, 57c. a 58c.; Ea 50c. a 51c. Oats—New, 88c. a 46c.; Old, 49c. a 54c. Rye, 65c. 70c., for 60 lbs. Barley—Canada, 100c. a 120c.; No. 1 Illinois, 65 a 70c.; No. 2, 42c. a 45c.

**BEANS.**—75c. a 125c.

**SEEDS.**—Clover, \$5 a \$5.25. Timothy, \$1.80 a \$1.85.

**PROVISIONS.**—Dressed Hogs, \$4.50 for light; \$5 a \$6 for heavy and extra. Mess Pork, \$14 a \$16. Shoulders, 5½c. a 5½c. Hams—City cured, 10c.; Green, 7c. Butter—Common, 11c. a 18c. Best Dairy, 14c. a 17c. Cheese—Ohio, 7c. a 9c.; Hamburg, 10 a 10½c. Lard, 10c. a 10½c.

**WOOL.**—Full blood, 32c. a 35c.; Half to three-quarters, 28c. 32c. Native to one-quarter, 26c. o 28c.

**CATTLE.**—Good Cattle, \$9.50 a \$9.75 a \$4 per cwt. gross; Common, \$2.50 a \$3; Light and inferior, \$2 a \$2.50. The market for good Cattle is quite active—the supply not equal to the demand for shippers and city use. Cows and Calves were sold at \$15 \$25 per head. Hogs—Heavy, \$4.75 a \$5 per cwt.; Light and Inferior, \$4 a \$4.50 per cwt. Hogs are dull, except for good heavy hogs, which can be sold readily at \$4.75 a \$5 per cwt. Sheep—Sales at \$3.50 a \$4.50 per head for Sheep weighing 100 lbs.

### TORONTO MARKET.—January 22.

**FLOUR.**—Market buoyant; Superfine, \$5; Extra, \$5.50 a \$5.75.

**GRAIN.**—Wheat active and advancing; White Winter, 120c. 150c.; Spring, 110c. a 120c. Barley, 50c. a 85c. Oats, 50c. a 58 Rye, 60c. a 63c.

**PEAS.**—Peas active, at 60c. a 65c.

**PROVISIONS.**—Pork in the hog, \$5.50 a \$6.25.

**LONDON MARKETS.—January 10.**

During the past year the price of Wheat in England has ruled low, with little fluctuation—the highest being the second week in January (\$1.50 per bushel), the lowest the last week in December (\$1.20 per bushel). The average price of the year was \$1.33 per bushel, or 36 cents per bushel less than the average price of 1857. The *Mark Lane Express* says: "The acknowledged deficiency in spring grain has been using up much of the surplus of Wheat, and, as spring advances, we calculate upon a moderately higher range." The last week of the year, the country markets generally evinced some improvement, many to the extent of three cents per bushel. A still further improvement may be expected, as the present rates are less than the average of the eleven years following the repeal of the Corn Laws, in 1846, by 45c. per bush.

Good malting Barley maintains its price, varying from 90c. for common, to \$1.23 per bush. for Chevalier. Poor descriptions of Barley are lower, foreign grinding sorts being offered for 66c. per bush. of 50 lbs.

Red Clover Seed was firmer, in consequence of unfavorable reports of the crop; 12c. per lb. was offered, with no prospect of less being taken.

Indian Corn brought from 57c. a 90c. per bush.

American Flour, sour, \$4.56 a \$4.80 per bbl.; sweet, \$5.76 a \$6.

Linseed firm at \$1.62 a \$1.74 per bush. for crushing, and \$1.92 for sowing.

In the Wool Market there was a better feeling, in consequence of the unusually favorable reports from the manufacturing districts. Higher prices are expected. The following are the current rates:

South-down Wethers,.....	88c.
do. Ewes and Wethers,.....	84c.
Liccester do. do. ....	82c.

**BRIGHTON CATTLE MARKET. January 20.**

Market Beef—Extra, \$7.50; First quality, \$7; Second, \$6.75; Third, \$5. Milch Cows, \$30 a \$40; Common, \$19 a \$20. Veal Calves, \$4 a \$4.50 a \$4.75. Two Years old, \$20 a \$24. Three Years old, \$24 a \$30. Hides, 7½c. a 8c. per lb. Calf Skins, 12c. a 13c. per lb. Tallow, 7½c. a 8c. Sheep and Lambs, \$2 a \$3; Extra, \$4 a \$5 a \$6. Pelts, \$1.50 a \$1.75. Swine—Pigs, 5½c.; retail, 5c. a 6½c.

REMARKS.—There is a decline on the lower qualities of Beef of from 25c. to 50c. per cwt. Sheep and Lambs sell 50c. per head lower. Swine stationary.

**ADVERTISEMENTS,**

To secure insertion in the *FARMER*, must be received as early as the 10th of the previous month, and be of such a character as to be of interest to farmers. TERMS—Two Dollars for every hundred words, each insertion, PAYABLE IN ADVANCE.

**APPLE SEEDLINGS AND ANGERS QUINCE STOCKS**  
for sale by CHAS. MOULSON,  
Feb. 1.—1t. Union Nursery, Rochester, N. Y.

**POULTRY FOR SALE.**—A few of fifteen different varieties of Fancy Poultry, all full blood, and bred pure. Also, one pair of Turkeys that will weigh fifty pounds. S. SMITH,  
Feb. 1, 1859.—1t. Darien Depot Office, Fairfield Co., Conn.

**SEEDS! SEEDS!**—Our DESCRIPTIVE PRICED CATALOGUE OF VEGETABLE AND AGRICULTURAL SEEDS, for 1859, is now ready for mailing to applicants enclosing a one cent stamp. J. M. THORBURN & CO.,  
Seed Warehouse, 15 John St., New York.

N. B.—A Catalogue of Tree and Shrub Seeds will be published shortly, and mailed as above, containing directions for managing Evergreen and other Seeds. Feb. 1.—2t.

**GRAPES BY MAIL.**—Diana, Rebecca, Northern Muscadine Concord, Hartford Prolific, King, Tokalon, Child's Superb, and forty-six other sorts of hardy native grape vines for sale. Well-rooted plants can be prepared for planting, and sent by mail, carefully packed in oiled silk, and postage paid, on receipt of one dollar each. Delaware and Logan vines at three dollars each. Address C. P. BISSELL & BALTER,  
Feb. 1, 1859.—4t. Rochester, N. Y.



**YOUNG AMERICA CORN SHELLER AGAINST THE WORLD!**

THE SUBSCRIBERS have purchased the right of the Young America Corn Sheller, which is acknowledged by all to be the best Sheller ever invented, being simple and durable in its construction, not liable to get out of repair, and requiring less power to propel it than any other Sheller ever made; can be operated with ease by a boy ten or twelve years old, shelling at the rate of one bushel of ears per minute.

Awarded FIRST PREMIUM at New York State Fair, Buffalo, 1857. Also, Premium and large Silver Medal at New York State Fair, at Syracuse, October, 1858.

The Machines can be had of the undersigned. To Dealers and Manufacturers—We have the rights of the following States yet for sale: Pennsylvania, Kentucky, Maryland, Virginia, Tennessee, North and South Carolina, and California. Also, forty Counties in the State of New York.

All communications addressed to the undersigned, will receive prompt attention. LEAVENWORTH & MASON,  
Manufacturers, corner of State and Perkins Sts.,  
Feb. 1, 1859.—1t. Rochester, N. Y.

**SHARPE'S SUPERIOR HARROW, OR PULVERIZER**

IS the most superior machine for pulverizing the soil, whether heavy old soil or stiff clay land, that has ever been introduced among farmers. The teeth are a series of coulters placed in a three-cornered frame, and cut the soil or sod, pulverizing it several inches deep, instead of tearing it as the common scratch or Geddes harrows and large two-horse cultivators do. It leaves the soil in the most perfect order, and it accomplishes more in being drawn on plowed land once, than can be done by cross-plowing and harrowing with a common harrow combined. The weight of the machine is 189 pounds—its draft lighter than the common Scotch harrow. The experience of Mr. John McHarg, one of the best farmers of the town of Bethlehem, in this county, has convinced him that it is the best instrument for saving labor in cultivating land he has ever seen, and we are privileged to refer to him as to its superiority. The crop of a quarter of an acre will pay for the machine. The price is within the means of every farmer, being only \$15.

Our POTATO AND CORN HOEING, HILLING AND CULTIVATING MACHINES are the "Ne Plus Ultra" of such implements, and will save their cost in three days' work. They cost only \$10; and every one who uses them says they are worth five times that amount. RESPONSIBLE AGENTS WANTED.

For further particulars, and Catalogues, address  
PEASE & EGGLESTON,  
Feb. 1, 1859.—1t. 84 State St., Albany, N. Y.

**RUSSIA OR BASS MATTS**—Selected expressly for budding and tying. GUNNY BAGS, TWINES, &c., suitable for Nursery purposes, for sale in lots to suit, by  
D. W. MANWARING, Importer,  
August, 1858.—1y\* 245 Front Street, New York.

**THOMAS WOOD**—Continues to ship to order, by any part of the Union, his celebrated UNITED STATES PREMIUM CHESTER CO. WHITE HOGS, in pairs not akin, or reasonable terms. Address, PENNINGTONVILLE, CHESTER CO., PA.  
Feb. 1, 1859.—1t.\*

**AMERICAN SEED STORE.**

**J. O. BLOSS & CO., PROPRIETORS,  
ROCHESTER, N. Y., & DETROIT, MICH.**

TO our patrons and the trade we tender our most cordial thanks for that ample patronage which has enabled us, from a small beginning, to increase our trade in the past five years, until, in point of celebrity in the *Seed business*, we stand second to no house in the United States.

Such has been the increase during that time, that we have been able to establish a large and prosperous Seed House at Detroit, Mich., from which supplies are sent to customers west of Lake Erie; while from the parent house at Rochester, Seeds are supplied to the trade as far east as New York City, New Jersey, and Pennsylvania; also west to Ohio, and north to Canada.

In August of the past year our store at Rochester was burned; since which time we have purchased the ground on which it stood, and have now constructed and use a building of twice its size, fitted up expressly for the Seed business, and which is said to be the best arranged store for the purpose in the United States, and equaled by only one in Europe, which is in France.

For this measure of prosperity, we are indebted to the liberal patronage and confidence of an enlightened public, and to those generous friends who have so kindly lent us their aid in times of need, and to all of whom we take this occasion to tender our grateful acknowledgements.

For the year 1859, we offer to the trade as large, new and fresh a stock of Seeds, and at as low prices, as any house in the country. We are now receiving in store, of the best Seed,

- 150 bushels Skirvings Red Top, and Laing's Improved Ruta Baga Turnip Seed.
- 100 bushels White and Red-top Flat, Norfolk, White Globe, Red-top Globe, Flat Dutch, White Stone, Yellow, Scotch, and Red-top Strap-leaved Turnips.
- 600 lbs. new fresh Drumhead Cabbage.
- 500 " " fine Flat Dutch " "
- 400 " " Early York " "
- 400 " " Large " " "
- 200 " " Sugar-loaf " "
- 100 " French Ox-heart " "
- 100 " Green Globe Savoy " "

Two to three tons Garden Beet Seed, in varieties, and a similar quantity of Field Beet Seed.

Two tons assorted Garden and Field Carrot Seed, with a full catalogue of the finer Seeds, in due proportion.

Two tons Cucumber Seed, of all the varieties.

1000 bushels Missouri Irish and Black-eyed Marrowfat Peas.

100 " Early Washington.

100 " Early Kenits.

100 " Blue Imperial.

Besides choice imported English Dwarf Peas.

All the desirable kinds of Early Garden Beans; and fast, though not so fast,

25 bushels White Lima Beans.

50 " London Horticultural Beans.

For more definite information, reference may be had to our Wholesale and Retail Catalogues, forwarded to all applicants.

We are also making arrangements for receiving 1000 bushels Hungarian Grass Seed, of which only one-fourth of a bushel is required to seed an acre, and which yields two and three tons of hay per acre. Also, a large supply of Illinois and Wisconsin Timothy Seed, as well as choice Clover Seed, to all of which we invite the attention of our former patrons, and the public generally.

J. O. BLOSS & CO.,  
Rochester, N. Y., and  
BLOSS & CO.,  
Feb. 1, 1859. 22 Monroe Avenue, Detroit, Mich.

**SEEDS AT WHOLESALE.**

BY reason of the abundant crops generally this season, we are prepared to offer unusual inducements to purchasers of SEEDS in large quantities.

Our Annual Trade List for 1859 is just published, and will be mailed to applicants enclosing a three-cent stamp. Although most Seeds are plentiful, we would advise our customers to send their orders early, as no matter how abundant, the stock of some of the rarer varieties generally becomes exhausted as the season advances.

J. M. THORBURN & CO.,  
Jan. 1859.—21. 15 John st., New York.

**FANCY POULTRY.**

A FEW choice specimens of the following varieties of Fowls may be had if applied for soon:

- Golden Spangled Hamburgs,—Price, 1 cock and two hens, \$8 00
- Silver " " " " " " 6 00
- Golden " mixed " " " " 7 00
- White Faced Black Spanish, " " " " 10 00
- Dominique, large and fine, " " " " 5 00
- Golden Spangled Sebright Bantams, " " " " 7 00
- Silver " " " " " " 8 00
- Black African, rose comb, " " " " 7 00
- White, rose comb and smooth-legged, " " " " 6 00

Caged and delivered at Express Office at Poughkeepsie, with-out further charge. Apply to

C. N. BEMENT,  
Jan. 1859.—21. Springside, Poughkeepsie, N. Y.

**SPRING GARDEN SEEDS.**

**J. M. THORBURN & CO.,**

**15 JOHN STREET, NEW YORK,**

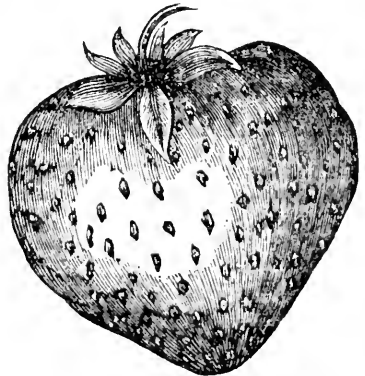
HAVE now in store their entirely new stock of SEEDS, com-prising VEGETABLE, FIELD, HERB, FLOWER AND TREE SEEDS, warranted fresh and true to name. The superior quality of the following we particularly recommend, all of which are required early:

BROAD WINDSOR BRANS, per quart.....	2
EXTRA EARLY AND BLOOD TURNIP BEET, each, per oz.,.....	1
PURPLE AND WHITE CAPS BROCOLI, " " " ".....	4
EARLY WINNINGSTADT AND OXHEART CABBAGE, each, per oz.,.....	2
EARLY AND GIANT WHITE SOLID CELERY, " " " ".....	2
PRIZE-FIGHTER AND OTHER FRAME CUCUMBERS, per pkl.,.....	2
IMPROVED NEW YORK PURPLE EGG PLANT, per oz.,.....	8
EARLY WHITE VIENNA KOHLRABI, " " " ".....	2
EARLY CURLED SILEZIA LETTUCE, " " " ".....	2
EXTRA CURLED PARSLEY, " " " ".....	1
EXTRA EARLY DANIEL O'ROURKE PEAS, per quart,.....	8
" " SANGSTER'S No. 1 " " " ".....	2
" " BURLINGTON " " " ".....	8
" " TOM THUMB " " " ".....	7
FARRBARD'S CHAMPION OF ENGLAND " " " ".....	7
NAPOLION AND EUGENIE " " " ".....	7
LONG CAYENNE AND SQUASH PEPPER, " per oz.,.....	4
EARLY SCARLETT TURNIP AND FRAME RADISH, each, per oz.,.....	7
ROUND SPINACH, per lb.,.....	10
EARLY RED, SMOOTH, AND MAMMOTH TOMATO, each, per oz.,.....	5
NORWAY SPRUCE AND EUROPEAN SILVER FIC, " per lb.,.....	10
DECIDUOUS CYPRESS SEED, per quart,.....	7
RED CEDAR, " " " ".....	7
BLACK AUSTRIAN AND PITCH PINE, each, per lb.,.....	8
SCOTCH FIR, " " " ".....	11
CHINESE ARBOR VITÆ, " " " ".....	24
YELLOW AND HONEY LOCUST, " " " ".....	7
OSAGE ORANGE, per quart,.....	14
KENTUCKY COFFEE TREE, per quart,.....	21
VEGILLA LUTEA (a very rare tree), per oz.,.....	1
APPLE SEED, per bushel, \$3: per quart,.....	1
PEAR AND QUINCE SEED, each, per lb.,.....	25
APRICOT PITS, per quart,.....	7
LUCERNE SEED, per lb.,.....	7
BEST WHITE CLOVER, per lb.,.....	4
FRENCH MIXED LAWN GRASS (extra), per bushel,.....	5
PERENNIAL RYE " " " ".....	9
OBCHARD " " " ".....	11
KENTUCKY BLUE " " " ".....	1
EARLY POTATOES, six varieties, from \$1.50 to \$2.50 per bushel.	
DIOSCOREA BATATAS, or Chinese Potatoes, fine roots, \$1.25 per do	

The following CATALOGUES will be sent to all desiring them by enclosing for each of any one of them a one cent stamp:

- CATALOGUE OF FLOWER SEEDS.
- CATALOGUE OF VEGETABLE AND AGRICULTURAL SEEDS.
- CATALOGUE OF TREE AND SHRUB SEEDS.

Also, Trade Lists of the above, for Seed Merchants.  
J. M. THORBURN & CO.,  
Growers and Importers of Seeds,  
Feb. 1, 1859.—21. 15 John St., New York.



**THE HOOKER STRAWBERRY**

MAY be obtained pure, and in any desired quantity, from the grounds where it originated. It has only to be known to be appreciated. Its advantages are perfect hardness, flower perfect, and great productiveness. Berry of the highest color and largest size, and best of all, most exquisite flavor.

Price, \$2 per hundred, \$15 per thousand.  
Order for spring planting, if only a few for trial, of  
H. E. HOOKER & CO.,  
Feb. 1, 1859.—21. Commercial Nurseries, Rochester, N. Y.

THE  
**GENESEE FARMER**  
FOR 1859.

**LIST OF PREMIUMS.**

THE terms of the GENESEE FARMER are: Single Subscribers, Fifty Cents a year, in advance; Five Copies for Two Dollars; Eight Copies for Three Dollars; and any larger number at the same rate. All subscriptions to commence with the year.

In addition to this reduction of one-fourth, we offer the following List of Specific Premiums as an extra inducement for our friends to form Clubs. It will be seen that they are more liberal than ever before.

**SPECIFIC PREMIUMS.**

1. To every person who sends us EIGHT Subscribers, (at our lowest terms of thirty-seven and a half cents each,) we will send, postage paid, a copy of our beautiful twenty-five cent book, *the Rural Annual* for 1859.

2. To every person who sends us SIXTEEN subscribers, (at our lowest club terms of thirty-seven and a half cents each,) we will send one extra copy of the *Genesee Farmer* and one copy of the *Rural Annual*, pre-paid, by mail.

3. To every person sending us TWENTY-FOUR subscribers, as above, we will send two extra copies of the *Farmer*, or two copies of the *Rural Annual* and one extra copy of the *Farmer*, or any agricultural work valued at fifty cents, postage paid.

4. To any person ordering THIRTY-TWO copies of the *Farmer*, as above, we will send three extra copies of the *Farmer*, or three copies of the *Rural Annual* and one extra copy of the *Farmer*, or any agricultural work valued at seventy-five cents, postage paid.

5. For FORTY, four extra copies of the *Farmer*, or four copies of the *Rural Annual* and one extra copy of the *Farmer*, or any agricultural book valued at one dollar, postage paid.

For larger numbers, books or papers will be given in the same proportion, unless, as is most probable, they take one of our large Cash Premiums for the greatest number of subscribers.

To save expense to our friends, we pay the postage on all these works, and persons who are entitled will state what they wish sent, and make their selections when they send orders; or, if their list is not complete, if wished, we will delay sending until the club is full.

**APRIL CASH PREMIUMS**

**For the Greatest Number of Subscribers.**

As some compensation to our numerous friends for their disinterested efforts in increasing the circulation of the *Genesee Farmer*, we offer the following List of Cash Premiums for the greatest number of subscribers sent in after the fifteenth day of January and before the fifteenth day of April. Those who took the January Premiums will be allowed to compete for the April Premiums; but in this case, and in all others, the lists sent in previous to the fifteenth of January will not be counted. The premiums will be awarded to those who send in the greatest number of subscribers between January 15 and April 15. The names of the successful competitors, together with the number of subscribers, will be announced in the May number, and the Premiums immediately paid.

1. TWENTY DOLLARS, in Cash, to the person who shall send us the largest number of subscribers (at the lowest club price of 37½ cents each,) before the 15th day of April, 1859. (The order with the money must be received, not mailed, on or before the 15th of April.)

2. NINETEEN DOLLARS to the person who shall send us the second highest number, as above.

3. EIGHTEEN DOLLARS to the person who shall send us the third highest list, as above.

4. SEVENTEEN DOLLARS to the person who shall send us the fourth highest list, as above.

5. SIXTEEN DOLLARS to the person who shall send us the fifth highest list, as above.

6. FIFTEEN DOLLARS to the person who shall send us the sixth highest list, as above.

7. FOURTEEN DOLLARS to the person who shall send us the seventh highest list, as above.

8. THIRTEEN DOLLARS to the person who shall send us the eighth highest list, as above.

9. TWELVE DOLLARS to the person who shall send us the ninth highest list, as above.

10. ELEVEN DOLLARS to the person who shall send us the tenth highest list, as above.

11. TEN DOLLARS to the person who shall send us the eleventh highest list, as above.

12. NINE DOLLARS to the person who shall send us the twelfth highest list, as above.

13. EIGHT DOLLARS to the person who shall send us the thirteenth highest list, as above.

14. SEVEN DOLLARS to the person who shall send us the fourteenth highest list, as above.

15. SIX DOLLARS to the person who shall send us the fifteenth highest list, as above.

16. FIVE DOLLARS to the person who shall send us the sixteenth highest list, as above.

17. FOUR DOLLARS to the person who shall send us the seventeenth highest list, as above.

18. THREE DOLLARS to the person who shall send us the eighteenth highest list, as above.

19. TWO DOLLARS to the person who shall send us the nineteenth highest list, as above.

20. ONE DOLLAR to the person who shall send us the twentieth highest list, as above.

There is not a town in the United States where any person, by showing his neighbors a copy of the paper and asking them to subscribe, might not take some of the largest of the above Premiums.

Those who do not take any of the Cash Premiums, will be sure of the Specific Premiums, so that we have no blanks.

CLUBS are not required to be at one Post Office, or sent to one address. We send wherever the members of the club may desire. Names can be added to a club at any time.

**A TWENTY-FIVE CENT PREMIUM TO EACH SUBSCRIBER!**

**Rural Annual and Genesee Farmer in Clubs.**

As a still greater inducement to form Clubs, we offer the GENESEE FARMER for one year and our beautiful twenty-five cent book, the RURAL ANNUAL AND HORTICULTURAL DIRECTORY FOR 1859, in clubs of eight or upwards, at Fifty Cents the two. In other words, for FOUR DOLLARS we will send eight copies of the FARMER for one year and eight copies of the RURAL ANNUAL, together with a RURAL ANNUAL for the person who gets up the Club. For EIGHT DOLLARS we will send sixteen copies of the FARMER and sixteen copies of the RURAL ANNUAL, and one extra copy of each for the person who gets up the club.

Any person sending us THREE DOLLARS for a club of eight of the GENESEE FARMER, shall receive one copy of the RURAL ANNUAL for his trouble.

We send the club to one address, or write the name of each subscriber on his paper, as requested.

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Address  
February, 1858.

**JOSEPH HARRIS,**  
ROCHESTER, N. Y.



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**CHERRY TREES FOR SALE ON TIME.**—The subscriber offers, for the spring trade, a very fine lot of strong-growth Cherry Trees, from two to four years old, in bearing state, embracing all the leading varieties. Also, a general assortment of Apples, Pears, Peaches, Plums, Apricots and Grapes. Also, Mazzard Cherry Pits, Cherry Seedlings one year old, and Potato Seeds from the ball. Feb.—11. J. D. CONKLIN, Lockie, Cayuga Co., N. Y.

**NEW YORK STATE AGRICULTURAL SOCIETY.**—Annual Meeting, WEDNESDAY, FEB. 9th, at the Capitol, Albany. Addresses on Wednesday evening. Exhibition of Grain, Dairy Products, Fruit, &c., on Thursday, at the Society's Rooms. In the evening, Annual Address by President McCoun. B. P. JOHNSON, Sec'y. Agricultural Rooms, January 1st, 1859. Feb. 1, 1859.—11.

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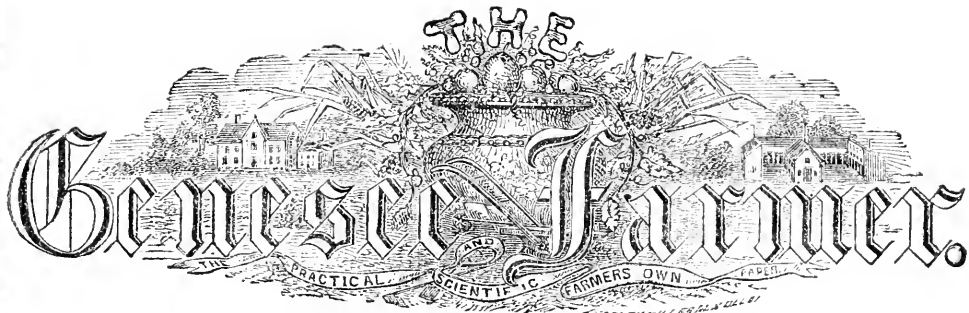
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JANUARY 1, 1858.

Rochester, N. Y.

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**ARE AMERICAN FARMERS INTELLIGENT?**

"Some editors of agricultural papers seem to try which of them can *blarney* the farmers the most. One editor of an excellent agricultural paper said, some month or two ago, that the American farmers were the *most intelligent and enterprising of any on the globe*. This, I thought, was like a minister of the gospel preaching to please sinners, in order to fill the pews, because I did not think he wrote what he believed."

The above extract is from an article in the *Country Gentleman*, written by our respected friend and correspondent, JOHN JOHNSTON. From the fact that we entertain such sentiments, and have used language similar to that quoted, we presume the shot is aimed at us.

We beg leave to assure Mr. JOHNSTON, that though we may not always write what we believe, we always believe what we write. We expressed our deliberate conviction, when we wrote, "The American farmers, as a class, are the most intelligent and enterprising in the world." Is there anything so improbable in this that we must be accused of *blarneying* our readers? Certainly we had no such intention. If we consulted merely our own interest in what we wrote, it would not be good policy to extol the American farmers at the expense of those of other nations. Many of our best and most active friends and correspondents are English and Scotch, while we have thousands of readers who are of foreign birth. It is as contrary to our interest as our inclination to say one word calculated to give them offence. It is true that, in speaking of *American* farmers, we designed to include *all* who cultivate the land in the United States and the British American Provinces. Taking them as a whole, they are eminently distinguished for their intelligence and enterprise.

The best farmers in the world, at the present time, are undoubtedly those of England and Scotland. M. DE LAVERGNE, an eminent French writer, records them this high position, and proves, by reliable statistics, that, notwithstanding "the superior soil and climate of France," the yield of cereal grains is not half as much as that of England;

while "the average return of an English sheep farm is six times greater than of a French one." He states, too, that "the English cows give twice the milk of French cows;" while in the production of meat, the English farmer is still further ahead. A well-known German writer, STOCKHARDT, in his *Chemical Field Lectures*, also gives the English the credit of being the best and most scientific farmers. He says: "Let us inquire only of English agriculturists; \* \* \* let us calculate the sums which have been expended in that country, by agriculturists themselves, with the view of extending and deriving larger returns from chemistry; and we shall not only arrive at a knowledge of the extraordinary and mighty efforts made in England, and the extremely slight attention paid in Germany to chemic-agricultural objects, but also at the conviction that there a harvest has already been reaped, while cautious Germany is still debating the question whether the seeds sown by chemists possess a germinating power or not." The italics in the above extract are STOCKHARDT'S.

The point we have to determine, therefore, is whether the English or the American farmers, as a class, are most intelligent and enterprising. The question is not whether the English or the American farmers produce the best crops, but which are the most intelligent and enterprising. It would be absurd to say, because a farmer residing near a large city obtained better crops than one more remote, that *therefore* the one was more intelligent than the other. We must take into consideration the circumstances of the two farmers—or of the farmers of different countries—before we can arrive at a just conclusion.

We have had considerable acquaintance with both English and American farmers, and are quite satisfied that, as a whole, the Americans are the most intelligent and enterprising. There are a greater number of thoroughly-educated gentlemen among the English farmers—many eminently scientific men who are an honor to the profession—

men who have few compeers in this or any other country. These men, by precept and example, have given direction to British agriculture. They have introduced many scientific improvements. These improvements have been extensively and successfully adopted by men who have no scientific attainments. So that the high state of English agriculture does not, necessarily, indicate a high state of mental culture among the majority of English farmers. The influence of *example* and the force of circumstances, rather than *general* intelligence, are the main reasons for the great superiority of British agriculture.

English farmers, as a class, do not read as much as American farmers. The aggregate circulation of all the English agricultural papers is not greater than that of the *Genesee Farmer* alone; and in addition to the *Genesee Farmer*, we have the *Albany Cultivator*, the *American Agriculturist*, the *Ohio Cultivator*, the *American Farmer*, the *Southern Planter*, the *Southern Cultivator*, the *New England Farmer*, the *Valley Farmer*, the *Wisconsin Farmer*, the *Farmers' Magazine*, and many others, all old, well-established, and extensively-circulated journals, devoted exclusively to agricultural and horticultural subjects; to say nothing of the weekly agricultural papers, such as the *Country Gentleman*, the *Homestead*, the *Boston Cultivator*, the *New England Farmer*, the *Massachusetts Ploughman*, the *Rural New-Yorker*, the *Maine Farmer*, the *Prairie Farmer*, the *Ohio Farmer*, the *Michigan Farmer*, the *Rural American*, and several others, all of which enjoy a liberal patronage. The sale of agricultural books, too, is much greater here than in England.

We are aware that America, as yet, has produced few agricultural books of any great value; but this, so far from indicating a lack of general intelligence among the farmers, proves rather the great demand for agricultural information. If poor books sell so well, good books—containing the information which farmers need—would sell better.

That American farmers are not as well educated as is desirable, must be admitted. Still, as a class, they will not suffer by comparison with those of any other nation. We are not *blarneying* in saying this. We have a great respect for American farmers, as well as for those of Canada. They have cleared the wilderness, and made the desert blossom as a rose. They have done well, and deserve the credit.

Mr. JOHNSTON thinks the American farmers are not intelligent and enterprising, because *they have exhausted their land by over-cropping.*

We think it is impossible for a farmer to *exhaust* his soil—that is, take out of it all, or the whole of any one, of the elements of plants which it contains. If a farmer has a field which has been heavily manured, and he sows it with grain for a few years, he exhausts the *manure*, but he does not exhaust the soil. New land has been heavily manured by the annual fall of leaves, etc., for centuries. By a scourging system of tillage, we *exhaust* this coat of natural manure, but we do not exhaust the soil—we reduce it to a more normal condition. Instead of censuring the farmers of a new country for availing themselves of the elements of fertility accumulated in the soil, we think they acted well and wisely in converting them into crops which would command the ready cash. In some cases, as Mr. JOHNSTON says, they may have wasted the money so obtained; but as a rule it has been expended in improving the country—in fencing the land, in building houses and barns, in digging canals and constructing railroads, Churches, school-houses, academies, and colleges, all represent money dug from the soil. An indolent, ignorant, unenterprising race of farmers would have let this wealth lie dormant in the soil.

We can not but think it was well to avail ourselves of the food of plants lying dormant in the soil. We have now advantages for cultivating the soil which the early settlers did not enjoy. The soil is not as rich—the natural manure has been perhaps exhausted, and we must now add manure to the soil if we would grow as good crops as formerly. Our agriculture is in a transition state. Farmers may not readily adapt themselves to their altered circumstances. Their crops may have been sadly deficient for a few years; but they are now beginning to farm better—to underdrain, keep more and better stock, make more and better manure,—and in a few years, if we are not much mistaken, we shall witness very great and general improvement.

LIVE AND DEAD WEIGHT OF HOGS.—E. CORNELL of Ithaca, N. Y., furnishes the *Country Gentleman* the live and dead weight of some large hogs, obtained at a "hog killing festival" in Groton. Four hogs, weighing alive in the aggregate 3,100 lbs. weighed when dressed 2,643 lbs. In other words 100 lbs. of live weight gave a fraction over 85 lbs dressed. This is an unusually high proportion of dressed to live weight. If the hogs had been less fat, the results would not have been so high. The general estimate of good hogs is 80 lbs. carcass to 100 lbs. live weight, or a deduction of one-fifth—varying less or more, according to the age, breed and degree of fatness, of the hogs.

## MODEL AND EXPERIMENTAL FARMS.

WE learn from the *Southern Farmer* that there is a "probability that the *Model Farm* will be *ironed up.*"

This farm is located near Petersburg, Va. It belongs to the Union Agricultural Society of Virginia and North Carolina. It was the first farm of the kind established in the United States. Its failure, however much to be deplored, is nothing more than might have been expected.

For a few years past, there has been a very general and praiseworthy desire, on the part of our most intelligent farmers, for scientific information in regard to the rationale of agricultural practices. This desire for more definite knowledge led to a simultaneous movement in various parts of the Union, in favor of the establishment of "Model and Experimental Farms." Attempts at establishing such institutions were made in Virginia, Pennsylvania, Massachusetts, Michigan, New York, Maryland, and Iowa. We hope every one of them may succeed, but shall not be disappointed if they all have the fate of the one in Virginia.

Those who originated, or have control of these institutions, in many cases, appear to have what we regard as erroneous views of the objects of an experimental farm. The very name "*Model and Experimental Farm*" indicates a lack of definite ideas on the subject. No farm can be both a *model* and an *experimental* farm. You might as well expect to have a "model" and profitable orchard of seedling apple trees, as to have a model—that is, a profitable—and experimental farm. Among the seedlings you might have two or three varieties that are better than any yet known; but the great majority would be inferior to those which have been previously tested and recommended by experienced pomologists. So on an experimental farm, some of the experiments might afford better results than the ordinary practices which have been adopted by experienced farmers; but the majority of them must, from the nature of the case, yield results less favorable than the best practices at present adopted.

The worthy superintendent of the Virginia Model and Experimental Farm, in his report for 1855, wrote as follows: "I will only again express to your Board my increased and confirmed conviction that your experimental farm *will ere long become self-sustaining if not remunerative* in its results, notwithstanding the adverse and unfavorable opinions of many."

A small portion of a farm may be devoted to making experiments, and the profits on the other

portion may be sufficient to defray the expenses of these experiments. But in this case the profits must be larger than they usually are, and the experiments must be such as any farmer can make—experiments involving so little care, labor, and expense, as to be of little value.

In instituting experiments, it is assumed that we are ignorant of the *best* system of tillage, of rotation, of manuring, and of general farm management; and the object is to discover it. To obtain this information, we must experiment—we must *try* various systems, modes of tillage, manures, etc. Some of these, as we have before said, *may* be better than those now adopted—many of them will be worse. These trials, too, must be made with great care and accuracy; they must be systematically carried on for several years, or we shall draw from them hasty and erroneous conclusions. Such experiments cause serious interruptions to the general business of the farm, besides involving much extra expense and labor. A good experimental farm, therefore, can not be a profitable one. It is vain to expect it. The agricultural papers of England and this country have commented on the fact that the experimental farm near Dublin, Ireland, has entailed serious loss on its managers. But such a result should excite no surprise. The justly celebrated experiments at Rothamsted, which have done so much to increase our knowledge of agriculture, have cost Mr. LAWES, for many years, from \$10,000 to \$15,000 per annum. BOUSSINGAULT's experiments in France could only have been carried out by a millionaire. Even the small and worthless experiment which LIEBIG made on his ten-acre farm near Geissen, cost \$2,200; and we may be allowed to say that our own experiments on corn, notwithstanding the New York State Agricultural Society were so kind as to award us their first premium of \$75, entailed considerable loss; and such was also the case with the experiments on potatoes, Chinese sugar cane, &c. In this we were not disappointed. We never expect to see a self-supporting experimental farm; and the sooner such an idea is abandoned, the better for the cause of scientific agriculture.

The experiments which have been made on the Model and Experimental Farm in Virginia, were such as we might expect from an experimental farm which was designed to be "self-sustaining." Not one of them was designed to throw light on the *principles* of agriculture. They have mostly been trials of this, that, or the other guano, or superphosphates of different manufacturers, the value of which a good analysis would determine as well as the most careful experiment.

We have said that any intelligent farmer can make—and hundreds do make—just as good experiments as the managers of any “self-sustaining” experimental farm. He must be a sad bungler who makes worse work than is described in the following record from the report of the superintendent of this model farm:

“On the 11th, two acres of pea fallow were sown, at the rate of  $1\frac{1}{2}$  bushels of early purple straw wheat per acre; and on the 12th and 13th, eight acres of corn land were sown at the same rate per acre, and with the same variety of wheat. One hundred and seventy-five pounds Peruvian guano per acre were applied to all. On the pea fallow the guano was well harrowed in, and on the corn land plowed under.”

Now it is very desirable to ascertain whether wheat does best after peas or after corn; and it is also very desirable to learn whether guano is best harrowed in or plowed under. But the above experiments will not satisfy us on either point. If more wheat is obtained on the pea than on the corn ground, we shall not know whether to attribute it to the peas or to the guano being harrowed in instead of plowed under. And if more wheat is obtained from the guano plowed under than from that harrowed in, we shall be equally at a loss whether to ascribe it to the method of applying the guano or to the corn being a better crop to precede wheat than peas.

In these remarks, we do not intend to censure the superintendent of this model farm. The position is an onerous one; and when several persons have a voice in the matter—each one wishing to carry out some pet experiment of his own—the result would be a compromise—one experiment counteracting the other, and the whole useless.

**WHEAT AS FOOD FOR CATTLE.**—JOHN HUDSON, Esq., of Castle Acre, England, says: “The very low price of wheat has induced us to feed our cattle upon wheat on a large scale, it being cheaper than linseed cake. I never remember so large a quantity of wheat consumed by cattle as there has been this season, and a great deal is being made into malt instead of barley.” Mr. H. is one of the best farmers in England, and he thinks that wheat at \$1.25 per bushel is not as profitable as other crops or as feeding cattle.

**CURE FOR WARTS.**—My hands being literally covered with warts, I tried some dozen recommended cures, with no good effect, until I procured some muriatic acid. A few applications, with a knitting needle, to the top of the warts, entirely removed the whole of them in a few days, without causing any soreness or pain.—THOS. WOOD, *Penningtonville, Chester Co., Pa.*

## OREGON AND WASHINGTON TERRITORIES.

FEW of our readers, whose attention has not been particularly directed to the subject, have any idea of the growing importance of these far-off Territories, in an agricultural and horticultural point of view. Peopled, as all new countries are, by an industrious, independent, thinking, and intelligent population, they have quickly caused the valleys and the hill-sides to bud, blossom, and bear fruit abundantly, richly rewarding the husbandman for his toil and privation. It is not a light labor to fell and remove the massive forests, construct dwellings, out-houses, highways, school-houses, and churches; and yet the hardy pioneers of these distant regions have nobly accomplished their work.

The soil and climate of Oregon appears to be well adapted to fruit-growing, and much attention has been given to that subject. Nurseries have been planted in many places, so that a supply of choice trees is readily obtained, and every facility afforded for extending and developing the horticultural capacities of the country. Apples, pears, peaches, plums, and grapes, as well as the small fruits, flourish well, often growing to a size that to us seems nearly fabulous.

A correspondent, remitting for a club of subscribers from Salem, Oregon, remarks:

“Notwithstanding the Frazer River gold humbug has passed over the land during the past summer, agricultural matters look more promising than ever before in Oregon. Our people have been afflicted with ‘gold fever’ so often, they take it as our friends in the Western States do the ‘ague and fever’—shake a little and go to work again.

“There is an average crop of grain raised this year, price from \$1.00 to \$1.50 per bushel. The apple crop is about the same as last year. Price eight to fifteen cents per lb. for the grafted sorts. Planting more trees, chiefly late winter apples, and sowing grass seeds, seem to be the leading branches of Oregon farming at present.”

A glance at the market reports for November shows flour dull at eight to ten dollars per barrel, butter worth thirty-five cents per pound, and eggs the same price per dozen. Boots, shoes, sheetings, drillings, etc., were reported scarce and high. Short supplies and high prices are incident to a new country distant from large cities and destitute of any considerable number of manufactories; but we may soon expect to hear that the mountain streams, on their way to the Pacific, have been harnessed to thousands of water-wheels for manufacturing purposes, and that the valleys and hill-sides resound with the hum of honest industry, rendering these thriving Territories fit members of this confederacy of States.

## HEMP AND ITS CULTIVATION.



HEMP.

At the suggestion of a Canadian correspondent who desires information upon hemp and hemp-growing, with a view of substituting that crop for wheat, we have devoted some time to collating and condensing the information within our reach, not having any practical knowledge or suggestions applicable to the case.

Hemp (*Cannabis sativa*) is an important crop, and has been extensively

cultivated for years in different parts of Europe and in some of the United States. Russia ranks first in its production, as well as in the quality of the staple grown. It has been successfully, though we think not very profitably, grown in some counties in England. Judging from the climate and soil of Russia, we should think there would be little difficulty in growing hemp in Canada West, or any of the range of country in that latitude. In Russia, the great bulk of the crop is grown in small patches by the peasants—an evidence that its cultivation is not difficult.

A soil that would be suitable for flax would be proper for hemp; and as the latter is a rank, strong-growing plant, it will probably succeed well even on soils that are not as fine and thoroughly pulverized as those usually devoted to flax. Good, fair, well-manured soils, even those somewhat clayey, as well as old meadows, rich alluvial and even reclaimed muck-beds, are adapted to its growth. A grass or clover sod, fall plowed, and then re-plowed in the spring, is best for it. It does not succeed well on new land. As it roots deep when well grown, the soil should be made deep and well broken.

Early sowing is recommended as producing the best crop. After danger from severe frosts is passed, seeding may be performed, and continued as late as the first of June. In this section, from the 1st of May to June 10th would probably be the desirable time. Where large amounts are grown, it would be preferable to sow at different periods, on account of convenience in harvesting.

Much care is required in the selection of seed, as it is liable to heat unless spread thin and well taken care of until wanted. The seed of the previous

year's crop is preferable. From a bushel to a bushel and a half is used to the acre, according to the soil, and many recommend two bushels, thinking the lint is better. While it is important that the ground should be all occupied, it is injurious to have too thick a growth, as a part will thus become smothered after it has drawn much of the fertility from the soil, to the detriment of the balance of the crop. The seed is sown broadcast when a crop of hemp is the object, but succeeds best in drills when a crop of seed is desired. After sowing, the ground is either harrowed or plowed to cover the seed. On old ground, plowing in the seed succeeds best, as it is less liable to be injured by rains and the baking of the earth. Rolling the ground after seeding, is recommended as very useful. As the crop covers the ground so closely as to prevent the growth of grass or weeds, no further attention will be necessary until it is ready for harvesting.

The proper period for cutting is usually from three to three and a half months after sowing, when the leaves become of a yellowish hue. If it stands a week or so longer, it does not rot so evenly, and requires more labor in breaking. Some still practice pulling the crop, though in the United States it is now almost universally cut, which should be as close to the ground as possible. Cutting up is done with an instrument similar to that used in cutting corn.

Whether cut or pulled, the plants are laid on the ground, keeping the butts even, where it lays two or three days, in good weather, to dry. It is thought a light rain, while laying on the ground, is beneficial in assisting the falling of the leaves, which should be removed before the hemp is taken up. This is done by binding in small hand bundles, and setting them up in shocks similar to corn, binding the tops with a band of the same. Some cultivators allow it to stand in the shock until the time of rotting; others put them in convenient stacks, where they remain a year, and sometimes even two years, before exposing them to rotting. By letting it remain so long a period, it undergoes a sweating process, which is supposed to improve the appearance and quality of the lint.

That the soil of large portions of the Northern United States and Canada is suited to the growth of hemp, can not be doubted; though whether it can be made a profitable crop, will admit of question. We are not aware whether there is any contingency as to the stalk coating with a good fibre, as in the case of flax, but presume it is subject to more or less uncertainty. Much attention has been bestowed upon its cultivation in Kentucky and other south-

western States, where it is a source of large profit to the growers. The Hon. HENRY CLAY gave much attention to its growth; and some of the best practical hints upon growing, gathering, and preparing hemp for market, are from his able pen.

There is in all parts of the country a demand for the seed as food for house birds—a demand which requires more seed than would seem credible to one who has no knowledge of the trade. This seed is obtained mostly from Louisville or Cincinnati, and costs there from 80 cents to \$1.50 per bushel, according to supply and demand. That enough could be grown in the vicinity of large towns, to supply this want, there is no doubt; but that raising the seed to a large extent would prove profitable, we do not believe. Dependence would of necessity be placed upon the sale of the fibre prepared for market. Upon the manner of rendering hemp marketable, some detail will not be out of place.

There are two modes of rotting hemp, though only that of dew-rotting is practiced to any considerable extent in this country. This is accomplished by spreading the hemp on the ground, as flax is spread for the same purpose. This may be done in autumn or in the spring. Mention is made of winter-rotting hemp by spreading it in December, in which case, with northern farmers, it would remain out all winter; and some strongly recommend this course. As it would not be gathered before September probably, it would in most cases be nearly impossible to dew-rot the crop before spring. Where winters are less severe, the rotting may be best performed during those months. Winter-rotted hemp has a brighter color than that rotted in the fall. How the case would stand with spring-rotting, we can not say. After the crop is spread, for which grass lands are best, the length of time necessary to complete the rotting will depend upon the temperature and degree of moisture that prevails. In a wet warm spell, five or six weeks will be enough time. If allowed to remain too long, the fibres lose some of their strength; and if taken up too soon, they are not so easily separated from the woody part, and the hemp will be harsh and coarse. To determine when the hemp is ready to take up, a handful is dried, broken, and partially dressed out; and as soon as the woody part is easily separated, and the fibres are soft and silky, the whole should be taken up and placed in shocks, or, what is better, stored in sheds until the time of breaking. Hemp should never be taken up when it is wet, as the fibre will adhere more closely to the wood and the whole is more liable to become tangled and marred, and the hemp, when broken,

will be rougher and harsher. It is taken up with rakes constructed for the purpose; and to be done to the best advantage, requires two or three hands to work together. If it is designed to break and dress immediately, it may be leaned against the fence, and exposed to sun and air.

Breaking can not be done in wet or moist weather. In the hemp districts, February and March are the best months. The work is performed out of doors, with a large fire in the vicinity, which not only keeps the operator warm but dries the stalks and facilitates the operation. The brake in use is similar to that for breaking flax, only somewhat longer and larger. It consists of two jaws, with slits in each. The under one has three slats, and is immovable. The upper one has but two, which play down between the under ones. The upper jaw is worked by the right hand, the operator holding the bunch of hemp in the left, turning and adjusting it, until the woody part has been broken up and fallen through the brake. With a brake of necessary size, it is no easy task to operate. A good hand, it is said, will not average more than 80 to 100 pounds per day, though some more expert have made 150 to 200 pounds. It is generally tied up in bundles at the brake, and sent thus to market, leaving the future process of preparation to the manufacturer. Sometimes it is scutched by the grower, which is a process similar to that known among the early settlers as the swingling of flax—a process not necessary to be described.

Hemp is used for so many purposes that there can, we think, be very little difficulty in finding a market for all that may be produced; and growers will do well to remember that those bundles rotted and prepared with the most care, will command the best prices. The range of prices in years past has been from three to eight dollars per hundred, the general average being not far from five dollars, at which price it is said to compensate well the grower, and be as profitable as most farm crops.

The quantity produced from an acre varies from 600 to 1,000 pounds, according to fertility, good cultivation of the soil, and the season. After reaching six feet, each foot in height to which it grows is claimed to add 100 pounds per acre to the crop—as, eight feet high, 800 pounds; ten feet, 1,000 pounds. It produces from 20 to 40 bushels of seed per acre, when planted in drills and properly cultivated, and has often yielded 50 to 60 bushels on very fertile soil. Choice hemp seed, suitable for sowing, is frequently worth \$3 to \$6 per bush.

The best quality of hemp is that known as water-



rotted, which is accomplished by its immersion in water until the woody part can be easily broken up and removed by the breaking process. To be successful, this should be performed in warm weather, September being considered the best month. As at that season much sickness prevailed at the South and West, which it was believed was increased by exposure and the malaria arising during the rotting, the practice was very generally discontinued. It has, however, been done in the early part of winter and in spring; and such hemp, at the price paid by government for Russia, is worth \$250 to \$275 per ton.

Probably some of the readers of the *Genesee Farmer* have an experimental and practical knowledge with which they can favor those who are seeking information on this subject.

### CULTIVATION OF HOPS.

THE constantly increasing demand for hops, not only for home consumption but for exportation, renders any well-considered facts in regard to their cultivation and subsequent preparation for market, a subject of more than passing interest to the American farmer.



SECTION OF A HOP VINE.

The hop (*Humulus lupulus*) is supposed to have been a native of England, where it was found in hedge rows and waste places. It has been much improved by cultivation and the production of new varieties from seed.

The land best adapted to growing hops is that which is naturally dry, deep, and rich, and which should be made mellow by good culture. Fields gently sloping to the north and east are preferable, as the hop is injuriously affected by the extremes of temperature, and the heat of the sun at noon-day. Rolling land is less liable to blight than flats, hollows, and valleys.

It is the practice in Europe to trench hop grounds

two and a half to three feet deep; but in this country the plow, and occasionally the subsoil plow with the other, is made to perform the work of preparation. Old meadows are good sites for hop-yards, if favorably located. These should be fall-plowed as deeply as possible, and re-plowed and thoroughly worked in the spring. Lime is often added, not only as an auxiliary to the crop, but for the destruction of worms that sometimes remain in the sod. Hop-grounds are in no danger of being made too rich, and should be highly manured before planting. The hop-field should either be on land so dry as not to heave in winter, or else well drained.

Hop-plants are set in rows, for convenience in after-culture. These rows should be from seven to eight feet apart each way, that there may be room to cultivate the ground and allow the vines to grow strong and bear well. Cuttings from well-established roots are used for planting, and are generally taken off in the preparation of the field for spring growth. These are sold at from 25 cents to \$1 per bushel, of which four bushels are required to plant an acre. It is the practice to put five pieces of root four or five inches long in each hill—one in the middle, and the other four pieces about two inches from it, on each side.

The hop-plant is not what is botanically termed *perfect*, the staminate and pistillate flowers being borne on different plants, which renders it necessary to intermingle the male with the female plants, which bear the crop, in putting out a field. They should occur as often as every tenth hill, with the addition of some extra hills on the side from which blow the prevailing winds.

The first year, the soil between the rows should be well worked, and may be planted to potatoes or beans, or even corn; but the latter growing taller, shades the vines and retards their growth. The necessary cultivation of the beans will be no more than the hops require, and will do something toward paying for the use of the land, and the manure which should be applied will be beneficial to the hops as well as to the beans.

The vines put out the first year should be trained to poles; and if the plantation was of roots instead of cuttings, they will bear some hops. After the vines have died down in the fall, cut them off and cover the crown of the hill with some earth and leaves, to secure it from injury by the severe winter frosts.

The second year, the soil will require digging over as early in spring as the weather will permit, mixing in a good top-dressing of some fertilizer.

For this purpose, decayed barn-yard manure, vegetable mold, guano, ground bones, woolen rags and waste, are used. The hills are opened and pruned of all runners or cuttings and old vines. The cutting off should be between the crown and first joint, as from this point come the most fruitful vines. If cut off too low, the vines will be weakly; and if too high, they grow strong, hollow, and unproductive. While performing this pruning is a good time to work in a top-dressing of rotten manure, of which the growing vines will stand in need.

The hills are now ready for setting the poles. These, where practicable, should be of cedar, or some other light wood, not less than twelve feet long, and as much more as convenient, up to twenty. The most experienced hop-growers use two and some even three poles to a hill. The poles should be set firmly in the ground, the taller ones on the windward side of the field, particularly those to which the male plants are trained. After setting the poles, the ground should be plowed out both ways, and cultivated, so as to insure freedom from grass and weeds. As the vines commence running, two good strong ones should be trained to a pole and the remainder cut away, so as not to interfere with the growing crop. The field will require hoeing two or three times during the season, and such vines as get loose or do not climb well, should be tied fast. Often the leaves are stripped off to the height of two feet from the ground, the better to admit air and sunshine.

The hop has its enemies, the most troublesome of which is the *wire-worm* or grub in the root. These are destroyed by digging into the hill and killing them. They are trapped by burying slices of potato or turnip near the hill, on which they gather, and may be uncovered and killed. There are several varieties of the hop-worm, also the caterpillar, flea beetle, hop-aphis, and other insects, that prey upon the leaves and vines. Lime and unleached ashes are good preventives, and birds and insects are efficient helps in their destruction, and should rather be encouraged than driven away. Careful attention and good culture will do much to overcome all these obstacles.

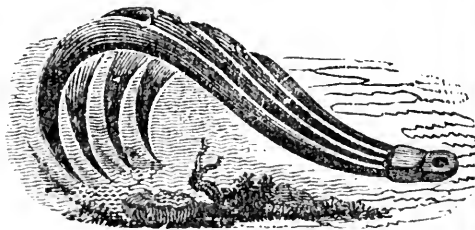
Picking and curing the hops are important operations. When they have a general appearance of ripeness, indicated by a brown color, hard seed, and becoming close and firm, they should be picked with all possible despatch. Picking should commence near the male plants, where the hops are ripest. The vines are cut off at the root, the poles taken up and laid on some frames, so as to be up from the ground and convenient to the picker.

While picking, several baskets or light boxes should be at hand, and the hops assorted as they are taken from the vines. Picking should be done early enough to secure the hops from frost; and the sooner done after commencement, the more profitable. As fast as gathered, they should be removed to the dry-house, where they are spread on a floor prepared for the purpose, with a moderate heat underneath, and dried, care being taken to have them of a uniform and light color. Sulphur is sometimes used to give a better and more uniform color, but its use can not be recommended. From the dry-house they go into sacks, into which they should be closely packed to exclude air. Good sacks are preferable to thin ones, and some dealers paint them the more effectually to exclude air.

Much more might be said, and profitably said, upon this subject; but for the present this must suffice. Perhaps some experienced hop-growers can impart additional and better information to our readers. Will they communicate the result of their practical experience.

#### REMOVING ROOTS AND BUSHES FROM LAND.

It often occurs, in clearing up a field, that there are many small roots of trees or shrubs which it is difficult to remove, and which are very much in the way if allowed to remain. This is especially true in clearing some of the oak openings or timbered prairies at the West, and also removing the roots of alders and other small trees from low grounds which it is desirable to bring into cultivation. To facilitate this labor, use is made of an implement known as a root puller, which may be readily understood by the accompanying engraving.



ROOT PULLER.

They are constructed of great strength, of the best quality of iron, and perforated at the end so that a chain can be hooked in. These prongs readily grapple under the roots of grubs, small trees, &c., and render their removal less difficult than by any other process. They may be constructed by any expert blacksmith, or obtained at the agricultural warehouses.

## NOTES FOR THE MONTH.—BY S. W.

THE SORGHUM SACCHARATUM.—There is no longer a doubt that the North China sugar cane is a great contribution to the agriculture of the Indian-corn-growing regions of our country. True, the seeds are not to be depended on when grown north of Kentucky; but as it takes but a quart or two of seed to plant an acre, it may be easily procured of southern growth at small expense, from seed-stores. It is a much hardier plant, though of slower early growth, than the Indian corn plant; bears more frost; and may be successfully transplanted when not over three inches high. For soiling cattle and horses, it is better than green corn-stalks; but when kept for winter fodder, it sours even in stook in the field, where corn-stalks keep sweet. In proof of the adaptation of the sorghum to a northern climate, I have a letter from Waupaca county, North Wisconsin, stating that much valuable *sweetening* had been made there from the cane, last fall—a great treat to the poor farmers in that newly-settled region, who clubbed together and got up a cheap wooden mill to grind the canes.

The Imphee, contributed by LEOPOLD WRAY, from South Africa, (*Sorgho des Cafres*, Fr.), has never come within my notice; but the *Bulletin d'Acclimation* of Paris tells us that it is grown in the French Antilles for its forage and very nutritious seeds, and that it is more of a cereal grass than the China cane, the seeds being so full of starch as to be substituted for rice by the plantation coolies.

RUST OF WHEAT STALKS.—E. S. BARTLETT, a very observing farmer who rejoices on a fine large farm on the Saccaee lake shore in Romulus, avers that he has provid beyond controversy that the rust on wheat is caused by honey dew; and that, strange as it may seem, this dew never descends in the evening or during night, but only in calm, dry, hot weather; and then at or a little after mid-day. Several years ago, when in the midst of his wheat harvest, on a hot, dry, calm day, when he broke off cradling at 12 o'clock to go to dinner, the wheat stalks were very dry, as there had been no rain in many days, and the sun was uncommonly powerful. On returning from dinner with his men, they were astonished to find the wheat stalks dripping wet with a sweetish fluid that ran from the point of the cradle as they when held up. There were several tall ash trees in the field, whose leaves were wet, while the wheat growing under them was dry. Before night the wheat stalks were covered with a dry red rust, which was precipitated into a floating powder as the scythe struck them. This rust did no damage to the now ripened grain, as it probably would have done had it come a fortnight earlier on the green stalks. There can be no doubt but that Mr. B. and his men witnessed this phenomenon. Has anybody else ever witnessed the same?

CORN FODDER.—JOS. WRIGHT has kept 50 horses in fine order all winter on corn stalks very finely cut by steam power. A little Indian meal is sprinkled on the cut and moistened mass. He thinks this feed is a saving of one-half over hay and oats. The large stalks of the Ohio dent corn are preferred to the smaller stalks of the flint corn, for they retain their sugar much better, as the animals testify in the avidity with which they devour the fine cut mass even without the meal. But Mr. W. says corn fodder that has ripened no cereal crop

will fatten horses without the aid of meal; hence it is hereafter to be one of the standard crops on his matchlessly-improved domain.

FATTENING HOGS.—Here is a farmer who has 700 bushels of corn to sell at 75 cents per bushel—the present cash price. He boasts that his eleven large hogs only eat the unsaleable soft corn, which would have been a dead loss but for the hogs. Would it not have been better for this farmer to have planted all his corn before the first summer month had half run out, so as to fatten his hogs on hard, ripe corn, boiled to make it soft, or ground and boiled with small potatoes, pumpkins, carrots, etc.? Then half the number of bushels would have fattened his hogs, and he would have had the balance to sell at the present high price.

Waterloo, N. Y., Feb., 1850.

## CORN FOR EXPORT.

EDS. GENESEE FARMER:—“When an American farmer sells corn, it must be for exportation to England.” Thus infers Dr. LEE for a writer in the *Mark Lane Express*. No one but the Doctor would “draw” such “an inference.” In that respect, he is more than a “match” for the rest of mankind, and the “horse” beside.

The Doctor says: “It is the business of the purchaser of corn for foreign consumption, to see that it is sufficiently dry to keep sound during a sea voyage.” This would be a difficult matter, if corn, when offered for sale, should contain “about twenty per cent. of water.” Moreover, some persons do not fully understand the nature and property of the article they purchase. Is it the privilege of sellers to take advantage of the ignorance of buyers, to gain by their loss?

Again he says: “It is not enough to dry corn perfectly” “to have it keep well in a common granary at home, and much less in a hot ship’s hold.” What makes a ship’s hold hot? If corn be perfectly dried and put into a dry ship’s hold, it may be taken to England, and delivered in good condition; or, if need be, I believe it may be returned in good condition without breaking bulk. It may be presumptuous to doubt the Doctor’s knowledge on this point, but I certainly do. Not being a corn-dealer, however, I shall not try the experiment suggested, unless he will furnish the corn, and procure a suitable place to dry it. I would also ask, Is it necessary to occupy the whole summer in taking a ship to England?

Suppose what is said, by Dr. LEE, in relation to corn being “dried once, or ten times,” to be reasonable—which is not conceded—is it reasonable to leave “twenty per cent. of water” in it, because, if expelled, it would be again absorbed in an indefinite time?

The matter may be thus stated: Dr. LEE says: “When farmers sell corn soon after it is ripe, there is considerable gain in not keeping it long to shrink and dry in weight.” The writer in the *Mark Lane Express* probably having seen large quantities of that grain in an almost worthless condition, which had been shipped from America, doubts the policy of recommending the advantage, as a matter of gain, of selling it in an unsound state. Dr. LEE writes a captious article in reply, containing little or nothing to the point. He frivolously carps at

an accidental solecism, when the sense is obvious. The idea, involved in his remark, that "almost any American school-boy might teach John Bull," is too stale to be witty. His gratuitous advice to Englishmen to "visit the United States and put up corn and meal," may pass for what it is worth.

Rochester, N. Y., Feb'y, 1859. JOHN BRADFIELD.

### CULTIVATION OF BARLEY.

For several years, since the wheat crop became so uncertain, much barley has been grown, with varied success in different localities and on diversified soil. Inquiry is often made for the best manner of growing the crop, land best suited for it, and many other details. We know of no better way to give answers than by extracts from the letters of practical farmers who have favored us with their experience in growing the crop.

A good rich loam is best for barley. Land that will produce twenty to thirty bushels of spring wheat will generally produce from forty to fifty of barley.

The best method of cultivation is to plow the land in the fall, either sward or corn ground, and, as soon as the land is dry enough in the spring, cultivate it thoroughly; then sow not less than three bushels of clean two-rowed barley per acre. Harrow it in thoroughly, then roll it down, and you have no more trouble with it until most of the heads are turned, when it should be mowed and raked into winrows with hand-rakes, and cocked up about the size of common hay cocks. If the weather is good, they will cure out in five or six days, ready for the mow or threshing machine. If the weather is wet, it will be necessary to open the cocks. It must be well cured and dry when put into the mow, otherwise it will heat and injure the grain. Save all the straw, which, if cut in season and well cured, is worth more per ton than poor hay.

East Rodman, Jeff. Co., N. Y.

H. H. TAYLOR.

In respect to the selection of seed, there are two varieties, the four-rowed and the six-rowed. The four-rowed is generally preferred for the reason that it is stiffer in the straw, and hence not so apt to lodge or fall down with rain storms. It has also another advantage: the grain is larger, rounder, and more plump, and, as a matter of course, weighs more to the bushel. The six-rowed barley differs from the four-rowed in one very essential point, viz., it is eight or ten days earlier, and that is a very decided advantage, inasmuch as the saving of a week would in some cases amount to the saving of the crop, by enabling it to mature before the excessive heat and drouth in the last weeks of July, which sometimes dries up the straw and prevents the grain from filling.

In the selection of land, it is an invariable rule that dry, warm, gravelly or loamy land, is best; but it is a more difficult matter to judge of what particular condition or strength to have the land. If land in too high condition should be sowed to barley, and a wet, warm summer, should happen to follow, the result would probably be only half a

crop, because in all likelihood it would lodge and take a second growth. Land in good medium condition—say after a crop of corn or potatoes which has been manured with unfermented manure—is well adapted to the crop. Let it be merely ridged up in fifteen feet ridges in the fall, and as soon as the land is dry in the spring, let a double or even a single-horse cultivator be run through it. Sow the barley on or as near the first of May as the weather will permit, and harrow the ground thoroughly, and in nine cases out of ten the crop will be good.

ANDREW WILSON.

Prescott, C. W.

### LETTER FROM JOHN JOHNSTON.

EDS. GENESEE FARMER:—I am feeding five hundred sheep this winter. They are fat now. Am feeding largely of oil-cake meal, as usual. I also feed eleven good cattle, with which I have been experimenting a little, and have some facts put together, which are at your service.

*Fact First.*—I bought six steers, over five years old, in fair condition, that had never been fed either roots or meal of any kind. I put them to hay and meal November 23d, their weight then being from 1,175 to 1,370 lbs.—averaging 1,257. Weighed at the end of thirty-five days, and found an average increase of seventy-four pounds, but the two largest ones ninety pounds each, and the two smallest only gained fifty and fifty-five pounds each, though to the eye they appeared to have made most fat. A gain of ninety pounds in the first thirty-five days stall-feeding, seems incredible, but such is the fact. I have long been aware that the largest cattle pay best for good feed, either in summer or winter, but was not prepared to find such a difference. They were all fed alike, and in stalls, so that each got the same quantity of meal.

*Fact Second.*—I put up two steers, rising of four years old, quite fat, grade Devons, weighing at the time 1,150 and 1,220 lbs. Gain in thirty-five days only twenty and thirty lbs., the smallest gaining least. From this it would appear that it is unprofitable to feed cattle after they are really fat.

*Fact Third.*—I put up two steers, rising of four years old, and lean, but good common stock, weighing when put up 1,180 and 1,300 lbs. Gain in thirty-five days, 62½ and 75 lbs., the smallest gaining least. I also put up a heifer, rising three years, weight 1,025 lbs. Gain in thirty-five days, 55 lbs. She is of fine bone and horn, long in the body, broad on the loins, grade Durham, lays on fat very fast. There was no Durham or Hereford blood in any of the others. I should be pleased to know if any of those aristocratic breeds put on over ninety pounds increase in the first thirty-five days of stall-feeding.

*Fact Fourth.*—I have found that cattle fed on hay and meal, and weighing from 1,230 to 1,460 pounds, if weighed at four o'clock P. M. and then shut up from food and water until next morning at eight o'clock, will shrink from 45 to 50 pounds. This is much more than I expected. I find that sheep weighing from 120 to 130 pounds, shut up the same length of time, shrink only three pounds. This is less than I expected. I intend to weigh again at the end of thirty-five days, and if offering anything worthy of note, you shall hear of it.

Near Geneva, N. Y., Jan. 7, 1859. JOHN JOHNSTON.

## A WORD MORE ON BARN-YARDS.

MESSES. EDITORS:—The comments of "B." on a short article in the July number of last year, on the construction of barn-yards, has once more "stirred me up to the subject." He stated that he would not then attempt to give a better plan. Thinking that he might do so at some future time, I have deferred writing, waiting to see what might be offered; but as nothing has appeared, I have concluded to add a few more words on the subject myself.

The plan proposed was to make the yard in such a manner that no water could run out of it. The objection was, it would not be practicable; but if so, would be too wet and miry. With a small yard, and buildings without conductors at the eaves, or if water from the surface of the ground adjacent should run into it, the objection would be a good one; but these circumstances are not generally beyond the control of the farmer. As our ideas extend on this subject, why not extend, if necessary, the area of the yard? Move back the fence and straw-covered sheds, and make sufficient room, so that the large basin in the center or at one end will not incommode either man or beast. The buildings should be spouted, and water on the outside prevented from running into the yard. Then what falls directly from the clouds into it would be absorbed by the strawy portion of the manure or run into the hollow of the yard. The main part of the yard should be nearly level, but with sufficient inclination toward the center, so that the surplus water would settle into it. If the soil is sandy or porous, the reservoir should be bedded with stone and clay. A yard constructed in this manner would not only save that rich portion of the manure which is so frequently lost, but it would also be far more comfortable for stock than one where, in a rainy time, the water, doubting which way to go, runs about, forming dirty puddles all over the yard, but finally "clears out," taking, like a thief, what don't belong to it.

The writer has no model yard as yet, but he intends to make one before long; and if at any time, when crossing it, he should sink, legs, body, and arms, up to the chin, as he gazed around upon the hungry upland he would consider himself on the pinnacle of hope rather than in the "slough of despond." Such a catastrophe would give one some idea of the amount of manure in store, and of the value of one's individual self as an article in the world of manures. After due reflection, and having fully defined his position, he would halloo to the boys to come and cart him out; and wherever he might roll and shake himself, there would no doubt be luxuriant crops for many years to come.

When a yard is small, and can not be enlarged on account of permanent sheds, a reservoir should be made on the outside. It should be water-tight and covered. In it should be placed absorbent earth, which, when saturated with the liquor of the yard, would be excellent manure. Draw out and replenish as often as circumstances require. Without the earth, the contents of the pit might be drawn out and distributed over the fields by a watering cart. Where loam or muck could be obtained, without drawing it too great a distance, I should prefer the former course. It may be said by some that such a practice is attended with con-

siderable labor and expense. It is true; but I believe it would pay. In no branch of their business do farmers practice more false economy than in the management of their manure. All concede its value, high praise is bestowed upon it, "it is the life of the farm," "an inestimable treasure," "a gold mine." But "what's in a name?" Manure without the essence is like a man without principle—of little use for any place. If farmers in this section would raise money on the end of wheat straw, they must not only sow an early variety of wheat, but they must sow it early, and also save and apply to the land that liquid and richer portion of manure which now so generally runs to waste.

Adams's Basin, N. Y.

J. A.

## LARGE vs. SMALL HOGS FOR FEEDING.

EDITORS GENESEE FARMER:—An article in your November number of last year requests such of your subscribers as have tried both the large and small breeds of hogs, to give their experience in the premises. Having had somewhat of a costly experience, I give it for what it is worth; and if one farmer shall thereby be enabled to save what I have lost, I shall be amply repaid for the trouble of writing this article.

In the spring of 1855, I procured from Illinois some thorough-bred Suffolk hogs of the Stickney stock. This is the most popular breed of small hogs in the United States, and I confidently expected a rapid improvement in my hogs. Some of the half-bloods made fine hogs, but the three-quarter-bloods were beautifully less. The full-bloods raised were pretty little hogs, but *slow of growth*, and so very delicate that I lost more than half of them after they were weaned. Some got so badly frost-bitten that they died, some had the quinsy, and some died without any known cause.

In September, 1857, I had a litter of about 35 three-quarter-bloods. They were well housed, bedded with leaves, and, with the sows, had all the corn they would eat through the winter, and well fed through the summer, with the run of good clover pasture. Not wishing to be the laughing stock of the neighbors, I was determined to make something nice out of them. But they would neither grow nor fatten "*at any age*." Last fall I slaughtered them the 15th of November, and the heaviest one would not weigh 100 lbs. nett. I am ashamed to make such a confession, but facts are facts. I will only add that they were better fed and cared for than any hogs I ever raised. Their whole history is a mystery to me. My conclusion from my experience with them is, that, being littered in the fall, and constitutionally very delicate, and having but little or no hair on them, they got so chilled through the winter that they could not recover. I had but thirteen out of the thirty-five to slaughter, as the balance died through the winter and summer. My only regret is that they did not all die when they were young. This breed having been established in a climate of much more uniform temperature (England), I suppose renders them unable to withstand the vicissitudes of our climate. Out of some four pairs brought to this county from different parts of the United States, I believe my experience has been as favorable as any. You can readily infer from the above that I was soon satisfied with the small breed of hogs.

Not discouraged, however, in the fall of 1857 I procured from Pennsylvania two pairs of Chester County Whites. From my trial with them, I am more than satisfied. To my mind, they are not only perfect models, but they possess that rapidity of growth and vigor of constitution so essential to the successful hog-grower. They fatten readily while quite young, and with me they will weigh as much again at the same age and on the same feed as any other breed. They will weigh, at eighteen months, with proper care, from 500 to 600 lbs. nett. I have before me the weight of three hogs of this breed, slaughtered on the 25th of December, 1857, as follows: No. 1, sixteen months and nine days old, 696½ lbs. nett; No. 2, sixteen months and seven days, 648 lbs.; No. 3, seventeen months and one day, 633 lbs. Aggregate, 1,977½ lbs.

Though this is a large breed of hogs, they are very far from being coarse. A coarse hog is to me like any other coarse animal, unfit to breed from. They are comparatively a fine, short-boned hog, very long in the body, broad on the back, with very short legs, head, and neck. With me they have been the admiration of all who have seen them.

When we consider that two-thirds of all the meat consumed in the United States is pork, and that the nicest care and judgment are necessary to make pork-raising a profitable business, we see the importance of securing the best breed of hogs; and I believe that it is the duty of those farmers who have tried the different breeds, to give their experience, unbiased by a disposition to make the most of a bad bargain. Then the careful reader will soon be able to select such a breed as will suit him. This question is much easier to settle than the horse and cattle question. In them there are so many qualities needed and represented, that often the best informed are at a loss which breed to select. Unlike them, the hog has but one purpose to fulfill, and that is to make the most meat out of the least feed. I have found the difference in feeding some breeds of hogs as high as 300 per cent.; and allowing for the poorest hogs as much as the most inveterate old fogey could claim, there is yet a difference too intolerable to be borne by any farmer—enough to break any manufacturing company in six months.

I am fully aware that others have raised fine Suffolks; but I believe that if the whole truth was known, three-fourths of them either died or turned out worthless comparatively. All of my correspondents who have tried Suffolks are dissatisfied with them. I have never been able to devise any course that would prevent the mange on them, while not one of my Chesters has been sick or had a crack on them. The reason I have said so much about the Suffolks is because they are the most popular of the small breeds and are the ones I have tried. From what I had seen, in the west, of the large breeds, such as the Woburn and Irish Grazier, I was prejudiced against them, being coarse, long-legged, coarse-haired, and heavy feeders; consequently I tried first the small breed, and with me they have proved *small breed* indeed.

As you remark, the cheapness of good pigs, and the ease with which they are propagated, renders the farmer inexcusable who neglects to improve his hogs.

H. L. BROWN.

*Fayette, Hoicard Co., Mo., 1859.*

## REARING CALVES.

My method is this: Take them from the cow at two days old, and learn them to drink new milk. When they have learned well, mix a little warmed skimmed milk with the new, adding more and more until they will drink all skimmed, and that without warming. Then I add a little sour milk, and gradually increase the quantity until they will take all sour. This they will generally do by the time they are two or three weeks old.

I have temporary stalls in the calf-pasture, and a separate dish for each calf; so the hoggish glutton can not rob his more considerate and sensible neighbor. A little trouble, with gentle treatment, will learn each calf to know his stall as well as the "ox." There is another advantage in tying them up; it makes them familiar with confinement in the best possible manner. I think the stalls a decided improvement upon the long trough and club system, to admonish the more greedy that they have "had their share."

Many calves are over fed for the few first weeks, much to their detriment, in my opinion. I think one-third or one-half of the milk of an ordinary cow is ample feed for the first four weeks. The quantity should then be increased, until they take the whole of one cow's milk; and if you add more in the latter part of summer, all the better.

A calf fed with sour milk until fall, will show a decided improvement over the half-fed "runt" that was "weaned" at six weeks or two months old; and with equal good keep through the winter, the well-fed one will buy a baker's dozen of the lean ones, even if you succeed in getting them *through* the winter.

I consider uniformity in the quantity given, and punctuality in the time of feeding, of great importance in the successful rearing of calves.

I have tried letting a calf "run with a cow;" but that is poor policy, I think: for if you do not keep up high feed through the winter, you have a miserable-looking animal in the spring; and if you do, you have an overgrown beast of but little practical utility.

I have been awarded the first premium on native heifer calves twice, by the Jefferson County Agricultural Society," that were fed entirely on sour milk; and one year there was a very large competition. If any one can raise a better calf than I can, with less expense, let him tell how he does it.

*Limerick, Jeff. Co., N. Y.*

E. MAYNARD.

## UNDERDRAINING AND MANURING AT THE WEST.

In a conversation at Mendota, the editor of the *Genesee Farmer* asks: "Don't you think it would pay better to cultivate less land and more thoroughly, and even to underdrain and manure a little?"

Yes; we think it would. Our soil needs more thorough cultivation than it receives. Almost nothing has been done in the way of underdraining, which is vastly more necessary than manuring. To the western farmer, no subject is of more vital importance than *underdraining*. It will aid him in getting in crops early in spring, increase their quantity and worth, and in many instances double the actual tillable value of the land. Through the past season, almost every wheat and corn field has had some portion of wet land—too wet for the growth

of the crop. The labor has been bestowed—plowing, planting, sowing, cultivating, and harvesting,—and the reward has been a gigantic crop of weeds in wet places, where the largest amount of grain should have grown. Here there is a loss of labor, seed, and crop, for the want of underdrains. Better or more forcible arguments in favor of draining could hardly be offered than the repetition of such seasons as this has been. He who can not read in the condition of his soil in months past the necessity of carrying off surplus water, must be beyond teaching by examples of dire necessity.

As to manuring, land devoted to corn-growing gets pretty thoroughly manured. The stalks are seldom cut up; the corn is picked from the hill, and the stalks are left to the herds of cattle to be eaten and trampled into the earth. In this manner the supply of vegetable mold is kept up, and rather increases than diminishes, from year to year. But wheat, coming in for a liberal share in the rotation of crops, with us, removes all its product from the soil, and thus tends to impoverish it. It pays to manure for corn with common barn-yard manure; but the growth of straw is ample in wheat, unaided by any such stimulant. Having never seen any report of a trial of lime, salt, or any of the inorganic fertilizers, I am not prepared to speak in regard to them. It is the common opinion here that manure is not worth the saving, and straw is almost universally burned.

You are doubtless correct in the inference given in your question, that it would pay better to cultivate less land, and do it in a more thorough, workmanlike manner; at least, such is the opinion of

Amboy, Ill., Oct., 1858.

W. H. GARDNER.

#### FENCE POSTS.

MESSEES. EDITORS:—In the January number of the *Genesee Farmer*, I see an inquiry, by E. MORROX, about fence posts, and without hesitation say that neither top nor bottom of wooden posts should be set in the ground. Nature never designed that wood should be inserted in the earth. Earth should come in contact with earthy material; and then there is very slow, if any, decay. I have thought upon this subject, and have experimented, and from the brick material I have cast and dried several fence posts 6 ft. long and 5 by 5 and 2 by 5 in. Owing to my not having the conveniences for burning, I have never burned any; but experienced men say that there is not the least difficulty, if a furnace is of sufficient height to have them stand on end during the process of burning. If the temperature is raised to the melting point of silex, the aluminum of the clay will be fused, and the carbon of the wood or coal will enter and form a substance as hard as the hardest stone—inexpensive to water and unaffected by time. Provision can be made, in the process of manufacture, to pass bolts through, the post, board, and cleft to be secured with nut and screw. Good boards put on in this way I think would last thirty to fifty years, and the posts for ever. A person having a sterile clay upon his farm, fit for no agricultural purpose, could make them as cheap as good wooden posts could be bought, or cheaper. If this is a new idea, I think that sooner or later it will be valuable.

Moscow, Litch. Co., N. Y.

WM. LYMAN.

#### SHEEP RACK—RURAL ANNUAL FOR 1859.

MESSEES. EDITORS:—In looking over the *Rural Annual* for 1859, I notice an engraving and description of a sheep rack, very good, but I believe that there is a better. The objection to this rack is the want of shelter for the sheep. According to the experience of numerous writers (given in the various volumes of the *Genesee Farmer*) and of myself, it does not pay to feed sheep in any kind of rack out of doors. Make the racks in any convenient mode, so that the hay will not get under the feet of the sheep; but be sure to have the racks, sheep and all, under good sheds; and there will be more wool and mutton, and less hay and grain necessary to its production.

The above is the only fault (if fault it may be called) in the *Annual* for 1859, saving and excepting the fault of being written on the plan of the celebrated SAM WELLES's valentine. I assure you that I did "wish there was more." As to the good qualities of the *Annual*, I can only say that they are "too numerous to mention;" and if it should be read by every man, woman, and child, in the State, it would only be doing the good which it was intended to do.

D. A. A. NICHOLS.

IMPROVEMENT OF SHEEP.—Your correspondent J. C., on the 19th page of the January number of your excellent paper, says: "As far as my experience goes, the most profitable sheep are of no breed. Buy poor and inferior ewes," &c.; and sets forth the doctrine that in cross-bred sheep the first cross is the best. Some years ago, I commenced the use of Leicester bucks, obtained from the excellent flock of J. BROADY, with my common ewes, with the following results. As a rule, the best ewe brought the best lamb; and as I went on from year to year, the lamb which had the most Leicester blood was the best. Now I have them that will compare favorably with many called thorough-bred. According to my experience, if you wish a flock of good mutton sheep, get the best common ewes, use good Leicester bucks, avoid in-and-in breeding, pay no attention to the old maxim that the first cross is best, shelter and feed well, and proper time will accomplish the object.—W. H. H. ELLSWORTH, *Woodville, Jeff. Co., N. Y.*

SALT AS A MANURE FOR WHEAT.—A correspondent, referring to our account, in the last volume of the *Genesee Farmer*, of the experiment of JOHN JOHNSTON, where a barrel of salt per acre, applied at the time of sowing, had a very beneficial effect on wheat—causing it to mature so early that the midge did it little injury—asks whether it would be likely to do as much good when applied as a top-dressing in the spring. *We think not.* The action of salt, probably, is as a solvent of fertilizing matter in the soil; so that it would be desirable to mix it with the soil, and apply it as early as possible. On poor land, salt would not be likely to do much good, sown either in the fall or in the spring. We hope our correspondent, however, will make the experiment.



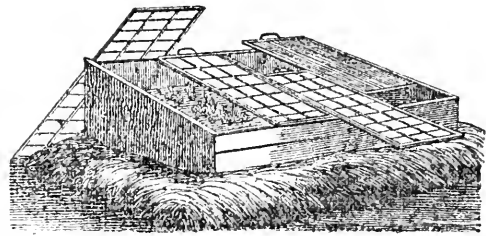


#### HORTICULTURAL NOTES FOR THE MONTH.

No farmer who pretends to have a garden should be without a hot-bed. It is easily made, and needs only a little care and daily attention to manage it successfully. It should be placed in a dry situation, exposed to the east and south, and protected by buildings or fences on the north and north-east. A hole should be dug two feet deep and a foot larger each way than the frame. The manure (horse-dung is best) should be placed in a loose heap to ferment a week or so before being placed under the frame. Then work it over, carefully mixing it, and place it in the pit, beating it down well with the back of the fork as you proceed, but do not tread it down, as it will heat more in one place than another. If compressed too much, so as to exclude the air, it will ferment slowly, and give out little heat. If too loose, it will ferment rapidly, and be too warm at first, and will soon get cold. The richer the manure—*i. e.*, the richer the food given the animals—the more readily will the manure heat. If the manure is too dry, water it with the drainage of the stables. This, blood, or any animal substance (except fat) will act as a ferment. All nitrogenous substances in a state of decay possess the power of inducing fermentation in non-nitrogenous substances,—substances which of themselves will not ferment. All animal matters, and especially those which are soluble, can be used to great advantage in regulating the heat of hot-beds. Where there is plenty of horse or sheep dung, however, there will be no need of anything to induce fermentation.

Heat is favorable to fermentation, and it is well to put the frame on the bed as soon as it is made. A frame nine feet long and six feet wide, with three sashes, as shown in the annexed engraving, is a convenient size. Shut it down close, but do not exclude the light, and cover well at nights. In a few days the bed will be quite hot. The gases eliminated at first are rather injurious to plants, so that the soil should not be put on the bed till all rank smell has ceased. Then cover the bed three or four inches deep with light, rich, garden soil.

Under the center of each sash place about a bushel of light, rich mold, making a heap about nine inches deep. When this is warmed through, sow a few seeds of cucumbers in each hill, about half an inch deep. Thin out the plants, leaving three of the strongest in each hill. When the roots protrude through the hill, cover them with light soil previously warmed in the bed. Water, when dry, with water the temperature of the bed. This should be about 60° at night and from 75° to 85° during the day, with sun. Ventilate, by letting down the sash a few inches on all favorable occasions. Fresh air and light are as important as heat; but be careful that no cold wind blows on the tender plants.



HOT-BED.

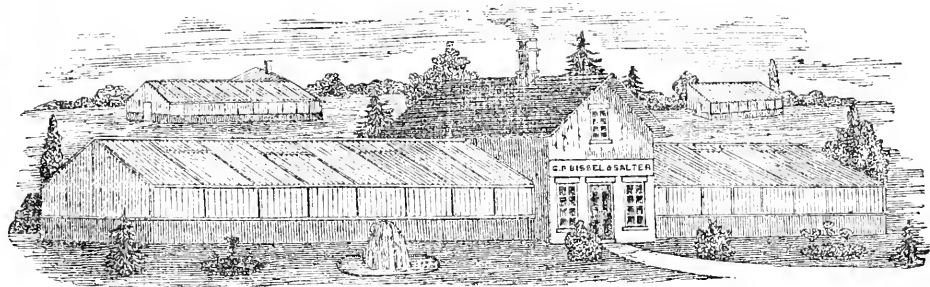
A few seeds of tomatoes, celery, egg-plant, &c., may be sown in boxes and placed in the bed, where they will get a good start before they are in the way of the cucumbers. They should be removed to a cold frame and hardened off before planting in the open ground.

Another bed can be made and managed in the same way, for a few early lettuce and radishes. The soil for these should be six inches deep. A little mustard and peppergrass may be sown to use before the lettuce are ready. In about a week, the mustard will be three inches high; when it has two leaves, it is fit for use. For all these seeds the soil should be very fine. Sow them on the surface, and then sift the soil over them—covering the lettuce about the eighth of an inch and the radishes a quarter of an inch deep.

If the bed is too cold, place some hot manure round the frame, covering it with boards.

Little can be done in the open ground, this month, except spreading manure on vacant land ready to be spaded in as soon as the frost is out and the soil is sufficiently dry.

Rhubarb can be easily forced by placing an old barrel, with the ends out, over a plant, and then banking it round with warm manure about two feet thick. Forced in this way, it is deliciously tender. The top of the barrel should be covered at night and on cold days.



PROPAGATING-HOUSE OF C. P. BISSELL &amp; SALTER, ROCHESTER, N. Y.

New beds of rhubarb should be made as early as possible. Plant in a single row, from three to four feet apart, according to the variety. The soil can not be made too rich. The root should be set so that the crown will be about an inch below the surface. We have used Peruvian guano, applied in solution, to old rhubarb beds, with remarkable success.

An asparagus bed should be five feet wide; four rows one foot apart and plants nine inches apart in the rows, set two inches below the surface. The soil should be trenched, and heavily manured, three feet deep.

Raspberry beds may be made as soon as the ground is in working condition. A light, rich, deep, loamy soil, suits them best. The finest raspberries we ever saw, were on a very deep, rich, naturally moist, but *thoroughly-underdrained* and deeply-trenched soil. Set four plants in a hill and the hills four feet apart. Cut them down to within a foot of the ground, and prevent them from bearing fruit the first year by pinching out every flower as it appears. Drive a stake in the center of each hill, and tie the young canes loosely to the stake as they grow.

Let everything be done this month that will facilitate future operations. But there is nothing gained by working the soil when it is wet, or sowing seeds when the soil is too cold for them to germinate.

In cold graperies, toward the end of this month the vines will show signs of bursting. Retard them as much as possible, by keeping them shaded and the house ventilated on all mild occasions.

**TREES FOR THE PRAIRIES.**—The Illinois Agricultural Society has awarded a premium to L. H. THOMAS, of that State, for a grove of timber trees. The seeds of the trees were planted on new ground in 1852, '3, and '4; and many of the walnuts, oaks, and maples, are now twenty-five feet high, very thrifty and growing.

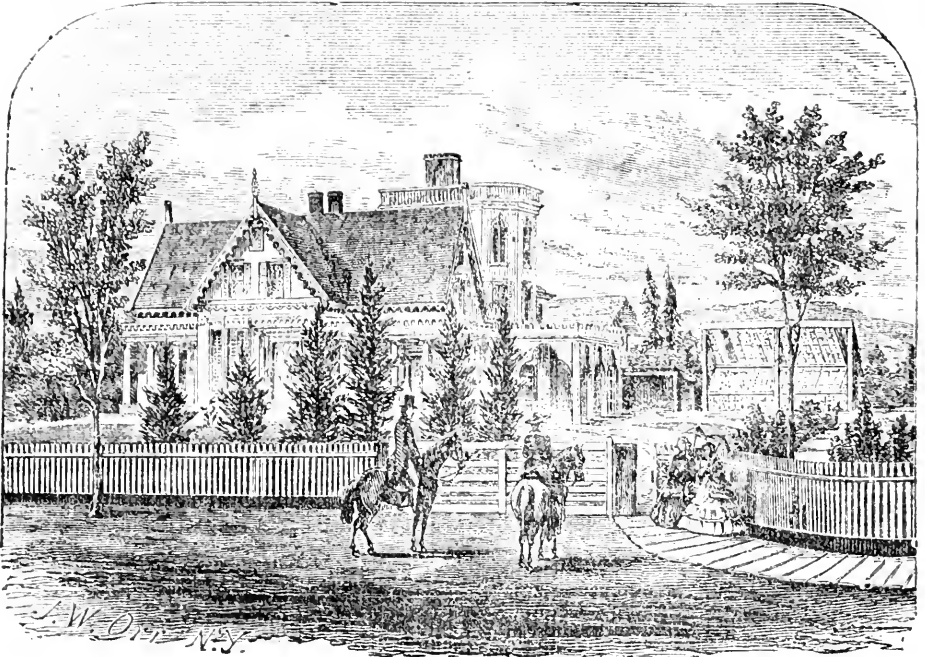
#### A BEAUTIFUL PROPAGATING-HOUSE.

ONE of the best and most substantial propagating-houses we have ever seen, has recently been erected in this city, by Messrs. C. P. BISSELL & SALTER, of the East Avenue Nurseries. It is 105 feet long, 24 feet wide, and is fitted up in most superior style, with a complete set of flues, hot-water pipes, and propagating tanks; the whole costing about \$2,000. It is now principally devoted to the propagation of hardy native grape vines, embracing all the new and most valuable varieties; their collection numbering upwards of fifty sorts.

We have great pleasure in presenting our readers with an excellent engraving of this model propagating-house. It is well worthy of a visit. Messrs. B. & S. are experienced fruit-growers, and well deserve the patronage they enjoy. They take great pains to test every new variety of grape, and recommend none that will not be found worthy of cultivation. They are gentlemen of great skill, intelligence, and reliability; and we can not but rejoice in this new evidence of their prosperity.

**SEED POTATOES FROM THE SOUTH.**—A correspondent of the *London Gardener's Chronicle* says that a farmer in Cornwall, where large quantities of early potatoes are raised for the London and Birmingham markets, procured some seed potatoes from Portugal, "and from them obtained potatoes a fortnight earlier than from any other sets." Some of our gardeners, with whom it is an object to get early potatoes, may take advantage of this hint, and procure seed potatoes from the South.

THE *California Culturist* states that "the *British Queen* strawberry proves thus far the very best with us for general cultivation, though it is far from attaining the same high rank in the Atlantic States." The same paper speaks highly of the *New Rochelle* or *Laxton* blackberry, but thinks the *Dorchester* or *High Bush* fully equal, if not superior.

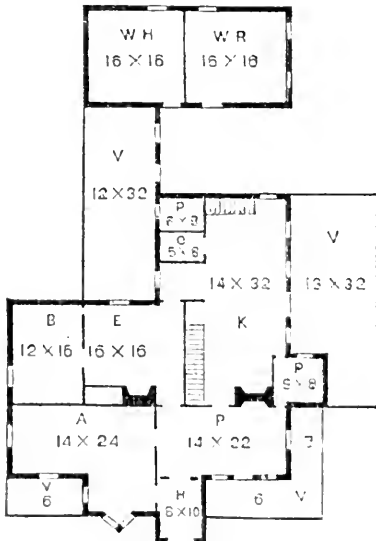


RESIDENCE OF JOHN A. NICHOLS, ESQ., SPENCER, TIOGA COUNTY, N. Y.

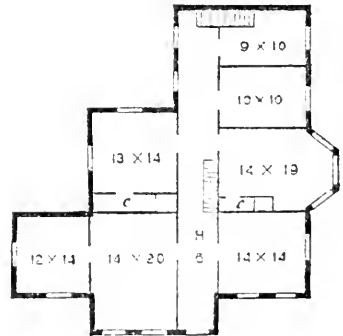
**A COUNTRY RESIDENCE.**

The accompanying elevation and plans will give the reader a very good idea of the residence of John A. Nichols, Esq., of Spencer, N. Y., with a view of his greenhouse contiguous thereto.

at K, family-room at E, with bed-room (B) off from it. P, P, represent pantries; C, closet; W H, wood-house; W R, wash-room; V, V, V, V, verandahs. Other parts will be readily understood in connection.



MAIN FLOOR.



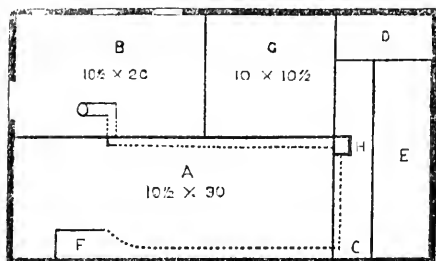
SECOND FLOOR.

The second floor, as shown in the plan, is conveniently divided by the hall, on each side of which are conveniently arranged parlors, sleeping apartments, and closets, with stairways to attic and observatory. Over the large parlor (14 by 19) is another room of same size: the whole forming a very neat and convenient residence.

In the plan of the main floor, the hall is shown at H, the parlor at A, dining-room at D, kitchen

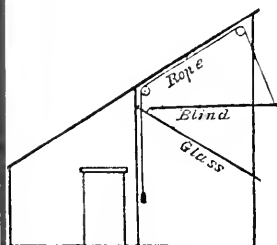
is thirty feet long by twenty-one feet wide, with

shed roof, and stands facing the south. In the back or low part are partitioned off two rooms. The outer one ( $10\frac{1}{2}$  by 20) is used as a shop, and the inner one ( $10\frac{1}{2}$  by 10) as a cellar or store-room.



PLAN OF GREENHOUSE.

In front, occupying  $10\frac{1}{2}$  by 30 feet, is the portion devoted to the greenhouse proper. The greenhouse portion of the building is sunk two feet below the surface of the ground, walled up with brick to the surface, and filled with proper soil for border, &c. The house has in front twelve perpendicular sashes, three lights wide and four high, of 8 by 10 glass. Every other sash is hung with hinges, so as to open. The top sashes are stationary, same size glass, and all of double thickness. The novel part of the structure is the roof and blinds. The roof covers the whole building, extending to a plumb line with the front of the greenhouse. The blinds, twelve in number, are made of siding, dressed, matched and fastened upon three cleets, and hung with strong hinges at the upper or back end. These, when let down, make a complete covering for the glass roofing, making an easy and quick means of shading in summer, and a great saving of fuel in winter. The blinds are readily raised and lowered by means of a cord passing over pulleys, as shown in end view.



END VIEW.

At the east end of the greenhouse is the propagating-house, E, which is eight feet wide and twenty-one feet long, the ground excavated three feet below the surface, and walled up as in the greenhouse. The glass roof is stationary, except two sashes, which are hung with hinges to open back upon the stationary glass, forming a door for filling or cleaning the bed, as well as to admit fresh air. The heating is done by a brick furnace placed at F, the flue of which is shown by dotted lines, and en-

ters a perpendicular chimney in the propagating-house at C. This flue continues from the top of chimney at C, over the door leading from the greenhouse to the propagating-house, and enters the main chimney at H. There is also another brick flue, as shown by dotted lines, at the back of the greenhouse, which enters the chimney about six feet above the floor of the greenhouse, at H. The pipe from stove in shop enters this flue, by which all the heat is saved to the greenhouse.

This greenhouse has now been in use three winters, without injury to a single plant by frost, and no fires have been built later than nine o'clock at night. In the coldest weather, some large sticks of four feet wood are put in and the furnace closed, and in the morning the temperature has never been lower than  $40^{\circ}$  and not above  $50^{\circ}$ .

This house was built by the day, and cost not far from \$300, and answers every purpose of a more costly structure.

#### RAISING WATERMELONS SUCCESSFULLY.

EDS. GENESEE FARMER:—I have been a subscriber to the *Genesee Farmer* since the commencement of Volume III, and have gained many valuable hints therefrom. I saw an article in Vol. VI, relative to raising watermelons successfully, which I have followed, and it has paid me for the *Farmer* ever since, in having plenty of good melons to enjoy.

I dug a trench about two and a half feet deep and about the same in width, filled it with horse-manure in a heated state, stamped it down hard, and then put back the earth, mixing well therewith a few loads of sandy loam, and planted my seed. I had some boxes made of boards, six or eight inches high, covered with millinet, muslin, or other thin, open cloth, to keep off the striped bugs, which are so destructive to melons.

I succeeded beyond my expectation, and have used the same ridge for years.

In the spring, I dig out the earth and rotten manure, fill the same trench as before, throwing back the same earth and rotten manure, thoroughly mingled; and if it needs more sand, add a load or so, mixed with the earth. The ridge will grow better every year. Hoe well and water properly, and a good crop may be expected.

Marcellus, N. Y., 1859.

LAUREN BEACH.

CULTIVATE A TASTE FOR HORTICULTURE.—Prince DE LIGNE well says:

"I would inspire everybody with my taste for gardens and gardening; for it seems to me an impossibility that this taste can take possession of any one who is bad. All the virtues will find a ready and congenial soil in that heart which has developed this taste, and loves to talk and act horticulture. Fathers of families, inoculate, if possible, your children with the gardening mania."

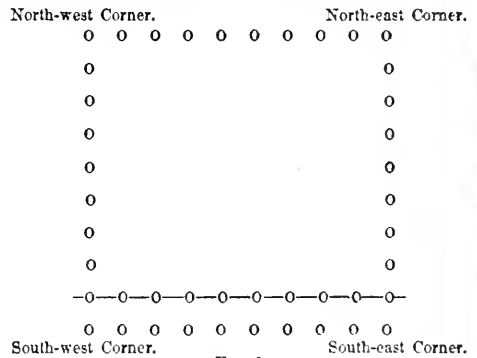
CULTIVATION OF THE GRAPE.—No. 2.

LAYING OUT THE VINEYARD.

The ground having been properly prepared (by harrowing, cultivating, or raking, as circumstances may suggest,) in the spring, as soon as the frost is out, and the ground in good working order, that it may be made as smooth and even as possible, the next thing to be considered will be the marking out the proper places where the vines are to be planted. Some difference of opinion exists among planters as to the proper distances the vines should be planted. The prevailing opinion is that four by four feet is the proper distance, where tied to poles. Some plant three by four, three and a half by four, three by five, and four by six, and all other distances, as fancy may dictate. But four feet each way is the commonly adopted distance in this country for the *Catawba* and *Isabella*, and is believed to be the best, where trained to stakes or poles. In France, I have seen some excellent vineyards planted two by four, three by four, four by four, and six by twelve; and all seemed to do remarkably well. Those planted two by four were allowed to grow where they listed; they had no stakes, and received very little pruning, but spread all over the ground, and completely smothered the weeds. They bore a great crop of excellent grapes, and, after the fruit was gathered, were pruned back to a mere stump, and the prunings left on the land and buried in the soil with an instrument something like a two-pronged hoe, called a *crotchet*. It is a very slovenly way; and how long the vines would continue to be fruitful, I can not say. Those planted three by four and four by four were carefully tied to stakes about three feet high out of the ground, and carefully pruned and trained. Those planted six by twelve, were trained to espaliers about eight feet high, running east and west. Those grown on the espaliers were of the *Chasselas Fontainebleau* variety, and produced some of as fine fruit as I have ever seen, of the same variety, grown under glass in this country. The *Muscat of Alexandria* ripened exceedingly well on the south side of a house; but 1847 was a first-rate fruit year in France. The soil was a deep, gravelly loam, with a great deal of lime rock, and gypsum was seen in almost every broken stone.

Having decided on the distance the vines are to be planted apart, the next thing is to lay the ground out as nearly square as possible. Then prepare a number of little stakes, sharpened at one end; and if four feet apart each way be the distance, it will take about two thousand seven hundred to the acre. These are best prepared by taking a straight-grained pine board, one inch thick, and sawing it into lengths of about eighteen inches, split it into strips half an inch thick. These being white, will be better than any others in sighting the rows through, and can be prepared in the winter or on wet days. Now take a good line, long enough to reach across the entire vineyard, and insert into it little pieces of red tape, at exactly four feet apart, the whole length. This is called the marking cord. Now, the cord and the sticks being ready and the ground squared, fasten the cord at the south-east corner, and draw it to the south-west corner; strain it tight and fasten it. Then have one or more hands to place in the sticks *exactly* at these little bits of

tape in the cord; set them upright, and, when placed, sight them through, to see if they are straight. Now take up the cord at the south-east corner, and carry it to the north-west corner; strain it tight, and place in the stakes, as before. Then proceed from the north-west corner to the north-east corner, and place the stakes as before; and thence to the south-east corner, or place of beginning. When the outside lines of stakes are set perfectly straight, and exactly four feet apart, and the whole piece perfectly square, then take up the cord at the south-east corner and place it at the second stake from that corner, and stretch it across to the second stake from the south-west corner. Now place the stakes again at the pieces of tape in the marking-cord. Now have one man at each end of the cord, to take it up and move it to the next stake, and place in the stakes, as before; and so on until all are placed. When all the stakes are set, sight them through, to see that they are in straight rows every way. It is necessary that the stakes stand in perfectly straight lines; for nothing gives more pleasure to the nice vine-dresser than to see the vines standing in their exact places; and nothing looks more unsightly than to see them planted all over the place, as though they had grown there by accident. Fig. 2 will fully illustrate



this mode of marking. The direction of the rows should be north and south and east and west, as nearly as possible, so as to give the vine the full benefit of the sun's rays in every possible direction.

PROPAGATION OF THE VINES.

Having thus described some of the best modes of preparing the soil and marking off the vineyard, I will now endeavor to explain how the vines may be propagated and multiplied.

Grape vines are propagated from seed, by buds or single eyes, cuttings, layers, grafting, inarching, and budding.

It is to be presumed that no one will attempt to plant out a vineyard from seed—the chances of getting a good one are too few. The grape vine is so liable to degenerate when raised from seeds sown promiscuously, that to get one really good one to every ninety-nine poor ones, is a very good proportion. More may be expected from half a dozen carefully hybridized seeds, than from a hundred accidentally sown.

If any one is desirous of raising new varieties from seed, he had better spend a little time in hybridization. As the young seedlings are most

ely to partake more of the constitutional character of the female parent than of the male, perhaps the best varieties to experiment upon, to produce a black variety, would be the *Isabella* or the *onecord* for the female parent, fertilized with the pollen of the *Black Hamburg*; and the *Diana* or the *Delaware*, fertilized with the *Rose Chasselas*, or a red; and the *Rebecca*, crossed with *Golden Chasselas*, for a white. These seedlings would be most likely to partake of the hardy constitution of the natives, and of the fine flavor of the exotics. As the foreign varieties will almost invariably have to be grown under glass, they will be most likely to come into bloom before the native varieties outdoors; and to ensure those to be operated upon expanding their flowers at the same time with the exotics, it will be necessary to have some of the native varieties grown in pots, that they may be moved into the cold grapery early in the spring, or protected with a temporary glass structure.

As the hybridization of the grape vine is rather nice operation, it will require some close attention and watching to catch the flower just before it expands. The corolla should then be removed, the anthers cut away, and the stigma fertilized with a pollen of the exotic variety. If, on cutting away the corolla, it is seen that the anthers have burst, the whole flower must then be cut away, as it is most likely it will have fertilized itself by its own pollen, and will frustrate the whole operation. One or two bunches on a plant, and these thinned at one-half, will be enough to attend to at a time.

**EYES.**—The native varieties are very readily multiplied by single eyes. An eye is a small portion of the one-year-old wood, having but one bud. In the month of February or March, take one-year-old, well-ripened wood, and cut it into as many pieces as there are well-ripened buds. Cut the eyes one inch above the bud, and two inches below it, as in fig. 3. Then take cutting-pans or boxes, four inches deep, and of any size to suit convenience, and put in about one inch of broken charcoal or potsherd, or anything rough and loose, for drainage, and over that a thin layer of moss, or the siftings of leaf-mould, to keep the drainage clear, and then fill to within half an inch of the top (pressing it pretty firm with the hands) with finely-sifted leaf-mould from the woods, and lake sand, if it can be had—if it not, any fine, light, rich earth, that is very porous, will do; about one-fourth sand will be the right proportion. Then press the cuttings into the soil up to the bud, in a somewhat slanting direction, and about one inch apart, keeping the bud uppermost, and just above the soil. The bud must not be buried, as it is very apt to rot. They should then be placed in a temperature of about 60° by night and 75° to 80° by day, and carefully attended to for water. The soil should be kept just moist, and they will nearly all grow. When they have rooted, they will have to be potted off singly, or planted out in the open ground if warm weather. If the weather should prove dry at the time of planting out, it will be necessary to give them some water; but when water is applied, give them a thorough soaking, that the water may soak to the

extremities of their roots. Merely wetting the surface, does as much harm as good, by causing it to bake and crack.

**CUTTINGS.**—What is commonly called a *cutting*, is a piece of the last year's wood, from one foot to eighteen or twenty inches in length, containing several buds, as seen in fig. 4. As soon as the ground is in good working order in the spring, the cuttings should be planted. Choose a rather sandy piece of ground, and stretch a line across it. Then dig a trench the depth and width of one spade, and carry this earth to the opposite end of the bed, to fill in with at finishing. Now dig across the bed again, throwing the earth up to the line, and make it level and smooth with the spade. Now set the spade perpendicular, and back up to the line and thrust it into the ground to the depth of two-thirds the length of the cutting.



FIG. 4.

Then draw the spade toward the bed, and from the line, bringing with it the soil, and leaving a perpendicular bank immediately beneath the line. Now place the cuttings in an upright position against this bank, about six inches apart, and about two-thirds their length in the ground, leaving one or two buds above ground. Now place the loose soil up to the cuttings with the spade, and tread it up to them firmly with the foot, setting the foot only once in a line, and right across the row. Now dig it all level and smooth for a distance of fifteen or eighteen inches from the row, and move the line and make another. Should the ground be rather stiff or clayey, it will be well to put into the trench, immediately upon the heels of the cuttings, about two inches of light sandy soil. This will induce them to root more easily. Decomposed vegetable mould and sand is best for this purpose, if they can be had. Should the weather prove hot and dry before the cuttings have rooted, it may be necessary to give them some water, or a shading with some light, littery straw, or both, as circumstances may suggest.

**LAYERS.**—Layering is the bringing down of a branch from an established plant, and burying it in the soil while yet connected with the mother plant. Fig. 5 will fully illustrate this.

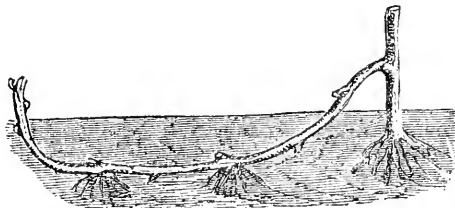


FIG. 5.

The best time for layering the grape vine, is in the latter part of June or beginning of July. Take a young branch, and bring it to the surface of the ground. Lay it where it is wanted, and peg it there, if need be. Then cover it with light, rich soil, to the depth of three inches, and the whole length of the branch, leaving the end and all the leaves and small laterals sticking out. By fall it will be well rooted all the way up the stem. It may then be taken up and divided into as many

pieces as there are buds with roots to them, and each will make a plant.

**GRAFTING, BEDDING, AND INARCHING.**—Although the grape vine may be multiplied by each of these methods, it is so much more readily propagated by eyes, cuttings, and layers, that the former methods are seldom resorted to. But it may sometimes happen that a person has an old stock of a poor variety, standing in a place where he desires it to remain, who wishes to cut it down and graft on it a better kind. If the grape vine be cut down and grafted early in the spring, or just before the buds begin to start, it is liable to bleed so profusely as to dislodge the scion. It is, therefore, better to wait until after it has begun to grow, and made shoots eight or ten inches long, and leaves as large as a silver dollar. It may then be cut down to within two inches of the ground, and the stump split with a chisel or large knife, and a scion of the desired variety pared down in the form of a wedge and inserted into the split in the stock, so that the bark



FIG. 6.

of the scion will come in contact exactly with the bark of the stock, or a union will not take place. It must now be bound tightly round with waxed cloth, so as to exclude air and water, and then earth heaped around nearly to the top of the scion, leaving one or two of the buds out. Fig. 6 will illustrate it. If waxed cloth can not be had, then bind the graft nicely

over with basswood bark or worsted yarn, and cover the whole with a lump of wet clay, as large as a duck's egg. *Inarching* and *Budding* will seldom or never be wanted for the propagation of the native varieties of the vine; therefore they are hardly worth describing here.

#### PLANTING.

There is a difference of opinion existing among planters as to whether cuttings, or one-year, two-year, or three-year-old rooted plants are the best. Those in favor of cuttings contend that they become rooted in their permanent place, where they are to grow; and that the mutilation of their bottom roots, consequent on removal, is thus avoided, which, if broken off, can never be supplied. The difficulty of getting proper cuttings, and the uncertainty of their all growing, in the Northern States, particularly with unpracticed hands, is almost a sufficient veto on planting with cuttings. In the Western and South-western States, where they have early, mild springs, and long, warm summers, cuttings may be more satisfactory; but in the Northern and North-eastern States, where the springs are late (having cold nights up to the first of June) and the summers hot and short, cuttings are not so sure.

A cutting, for planting at once in the vineyard, should be a portion of wood taken from the base of a cane of the first growth of the present season. It should be round, short-jointed, four or five buds in length, well ripened, and cut with a small portion of wood of two seasons' growth at its heel. Such cuttings, if properly managed, will rarely fail. But, few persons will like to cut their vines back so as to spoil the spurs, which should be saved for

fruiting another year, for the sake of getting a few cuttings. Cuttings of the second growth, or of pithy, unripened wood, are unsuitable. What is wanted, is an early, healthy, vigorous, and eve growth, that the vines may become well established and well ripened the first year; and how can this be attained better than by one or two-year-old well-rooted and well-ripened, healthy plants?

If it be decided to plant with cuttings, as soon as the ground is in good working order, early in the spring, place the spade perpendicularly an back up to the little marking-stick where the vine is to stand. Then drive the spade into the ground to its full depth, without disturbing the marking stick, and pull it forward, bringing with it a spadeful of earth. This leaves a little perpendicular bank, the width and depth of the spade. Now place two cuttings close up to the bank, two inches apart, one on each side of the marking-stick, as deep enough to leave one bud half an inch above ground. Now fill the hole with nice, fine earth (decomposed leaf-mold from the woods, with one fourth clean, sharp lake or river sand, is the best that can be had for the purpose of planting either the cuttings or plants in,) press it firmly up to the cuttings, and make it smooth on top. Give one good soaking with water, to settle the earth to the cuttings. As soon as bright sunny days begin to set in, it will be better to shade the cuttings by sprinkling over them a few loose straws, short grass, or hay, to protect them from the scorching rays of the sun. Should there be continued hot, dry weather, they may require a second or third watering; but when watered, give them a good soaking that will soak to their very bottoms.

Fig. 7 represents the cuttings as they appear when placed up to the little bank left by the spade. *a* shows an imperfect cutting, made from pithy and unripened wood; *b* is a good cutting, made of well-ripened, solid wood, with a piece of two-year-old wood at its base. There should always be two cuttings planted at a stake. If both grow, one must be cut away, or carefully taken away without injury to its roots, for the purpose of filling up any place where both may have died.

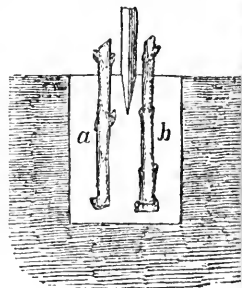


FIG. 7.

If good, healthy, one or two-year-old ready rooted vines are used, there will be one year saved at least, with the additional advantage of having them all grow alike all over the vineyard. But if the rooted vines cost more money than the cuttings, some may object to the extra expense, and think preferable to purchase the cuttings, and either plant them at once in the vineyard, as advised, or in nursery-bed, and prepare their own plants a year beforehand. So it would be, if the planter were sure that all his cuttings would grow; but as it is very difficult some seasons, for an unpracticed hand to make cuttings grow, I do not think, taking into consideration the vexation of losing some of the cuttings, and the loss of time, there would be much saved. If plants are chosen, there are none better



(perhaps none so good) than one or two-year-old plants, grown from single eyes. Their roots all issue from one base, and can be more readily spread out and nicely planted at one depth, and in less time, than those grown from layers or cuttings, whose roots issue all the way up the stem. And they would seem preferable, too, from their whole force and energy being concentrated in one bud from the beginning, to those whose substance is divided among several, as in cuttings from the nursery-bed. But as the native varieties are more commonly propagated by cuttings or layers, it may be difficult to get them from eyes; and in that case the former will require a little more care in pruning and planting, and may ultimately be just as good. Before planting, the vines must all be carefully examined; and if there be any mutilated spots, they must be carefully cut away with a sharp knife, and trimmed and pruned back to the lowest sound, plump, round bud above their *upper* roots; and those from eyes, to about *eight inches* above their roots. While this is being done, care must be taken that the roots are kept moist, by shading with wet cloths and straw, and watering, &c; for allowed to dry and shrivel, they will start unevenly, and some of them may die altogether; but carefully managed, there is no occasion to lose any of them. When ready for planting, prepare, with a spade, all the holes first—if for plants from layers or cuttings, about a foot square and a foot deep; and if for those from single eyes, a foot square and eight inches deep. Make the holes square up to the stake, so that the plant may stand right in front of it. Lay the soil out of the hole on one side of it, and on the other side about two handfuls of nice earth, as recommended for planting cuttings in. When all is ready for planting, take a few plants at a time, to be exposed to the sun and wind, and begin at one corner and plant the whole row first, and then another, to avoid trampling as much as possible. Put about two inches of the compost into the bottom of the hole; tread it level, and set in the plant; spread its roots out in their natural position, as near as may be; then fill in the rest of the compost, pressing and shaking it beneath and between the roots as much as possible; then fill the hole up level, leaving one bud just above the surface. When planted, give one good watering; and shade as advised for cuttings, if hot, dry weather.

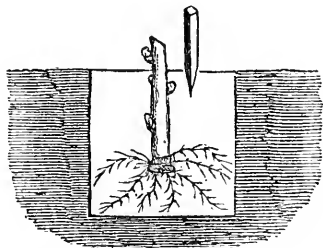


Fig. 8.

Fig. 8 represents a plant grown from a single eye, with the roots all at its base; and fig. 9 a plant grown from a cutting or layer, with its roots all up the stem.

The marking-stakes should be left in their places the first year, as a guide and protection to the

young and tender vine; for the buds are so brittle when first starting to grow, that the least touch may break them off.

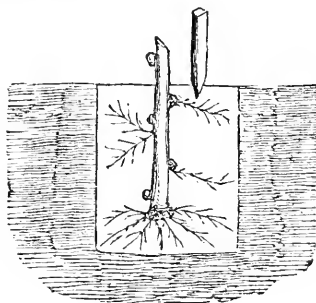


Fig. 9.

All that remains to be done, is to keep all kinds of animals out of the vineyard, and to avoid trampling and walking about as much as possible. Let the ground be stirred two or three times during the summer with the cultivator or hoe, to keep down all weeds, &c. The vines may be allowed to grow at will during the first summer; very few will ever get broken by the wind, &c. After they have grown a foot or so, and are lying on the ground, they should be trimmed to one cane, and the small laterals produced on the main cane should be pinched back to one leaf.

Rochester, N. Y., Feb'y, 1859.

JOSIAH SALTER.

**EARLY VEGETABLES.**—Many persons wishing early vegetables, sow the seed in crocks or boxes, and start their plants quite early; but their early growth is nearly lost in transplanting. Let them try the following method:

Take a flat box, and fill in an inch or two of earth; then take flat or English turnips, scrape out the inside of as many as you wish hills of tomatoes, cucumbers, cabbage, or lettuce, place them in your box, fill in and around with rich earth, and sow a few seeds in each. Keep in a warm room, and water occasionally. When you plant them, cut off the bottom of the turnip, being careful not to disturb the roots, and your vegetables will be from one to two weeks earlier than those raised in a hot-house and transplanted in the common way. Let three or four cucumber or lettuce plants grow in a hill, and but one tomato or cabbage plant. After they are set and growing well, nip off the poorest of the tomatoes and cabbages, for by pulling them up you disturb the roots of the one you wish to grow.—G. CONVERSE, *Wilkesbarre, Pa.*

**BLACK KNOT—A CURCULIO REMEDY.**—We cannot agree with you on the plum tree, as we can show you trees, worked upon the proper stock, that are thirty years old, bearing profusely every year, and have no "black wart." We have a very simple remedy for the "little Turk," *curculio*, which is to burn old chips of leather under the trees when the plum is of the size of a pea, — one application being sufficient. Plum trees should be worked on plum stocks, — not on peach, wild plum, nor suckers from old trees, as these make a sickly tree, good for nothing.—C. REAGLES & SON, *Schenectady, Nov., 1858.*



### New Advertisements this Month.

A Novelty—Volney Leonard, Springfield, Pa.  
 Wholesale Catalogue for 1859—A. Frost & Co., Rochester, N. Y.  
 Rochester Commercial Nurseries—H. E. Hooker & Co., Rochester, N. Y.  
 Wilson's Albany Strawberry—John Wilson, Albany, N. Y.  
 Rochester and Lake Avenue Commercial Nurseries—J. Donnelan & Co., Rochester, N. Y.  
 Peruvian Guano—A. Longett, New York.  
 Superphosphate of Lime, Bone Dust—A. Longett, New York.  
 Agricultural Implements—A. Longett, New York.  
 Agricultural Implements—Pease & Eggleston, Albany, N. Y.  
 Old Rochester Nurseries—Samuel Moulson, Rochester, N. Y.  
 New Illustrated Rural Manuals—Fowler and Wells, New York.  
 How to do Good and get paid for it—Fowler and Wells, N. Y.  
 Isabella and Catawba Grape Vines—R. T. Underhill, M. D., New York.  
 The Practical Horse Farrier—E. Nash, Auburn, N. Y.  
 Flower Seeds by Mail—J. M. Thorburn & Co., New York.  
 Elliott's Western Fruit Book—A. O. Moore & Co., New York.  
 American Weeds and Useful Plants, or Agricultural Botany—A. O. Moore & Co., New York.  
 Landscape Gardening—A. O. Moore & Co., New York.  
 Field and Garden Seeds—L. W. Briggs, Macedon Center, N. Y.  
 Lawton Blackberry Plants—Wm. Lawton, New York.  
 Buffalo Nurseries—D. S. Manley, Buffalo, N. Y.  
 Glorious News for Farmers—Pease & Eggleston, Albany, N. Y.  
 Short Horn Bulls—E. Marks, Camillus, N. Y.  
 Valuable Farming Lands for Sale—Alex. Oleott, Corning, N. Y.  
 Grape Vines—Hoag & Craine, Lockport, N. Y.  
 Fruit and Ornamental Trees for Spring of 1859—Ellwanger & Barry, Rochester, N. Y.  
 Apple-Pie Melon Seeds—W. H. Gardner, Sublette, Ill.  
 Baker Apple Grafts—F. A. Rockwell, Ridgefield, Conn.  
 Cherry Currants—Chas. F. Erhard, Ravenswood, Long Island.  
 Drain and Roof Tile Machines—F. M. Mattice, Buffalo, N. Y.

**APRIL PREMIUMS.**—Our friends will not forget that we have offered over \$200 in cash premiums to be awarded for the greatest number of subscribers sent in by the 15th of April (see February number, page 71). Very few of our agents are competing for these premiums. They will undoubtedly be awarded to very small clubs. There is yet abundance of time to get subscribers. As we stereotype the *Farmer* and *Rural Annual*, we can supply all the back numbers. The *Farmer* is not a newspaper, and the back numbers are as interesting and useful now as when first issued. Those of our readers who have paid 50 cents for the *Farmer*, can have four more copies, sent to any address, for \$1.50, or seven copies for \$2.50, together with a *Rural Annual* to the person getting up the club. Additions can be made to clubs at any time, for 27½ cents each.

**A HINT TO ADVERTISERS.**—A correspondent writes: "I have a suggestion to make to those enterprising men who advertise agricultural implements, &c., in your paper. Tell us what your price is. I am inclined to buy the 'Young America Corn Sheller,' if I do not have to 'shell out' too much to buy it. How much?" [We believe the price is \$10. We hope our advertisers will act on the above suggestion.]

**ADVERTISEMENTS.**—We have more advertisements in the *Farmer* this month than we desire. Still, they are all of interest to our readers. We exclude patent medicines and all other deceptive advertisements. It is our design to make every department of the paper interesting and useful. On this account, we must again request our advertising friends to make their advertisements as short as possible. Our terms, perhaps, are too low; but if our friends will be brief we shall not increase our terms present, though they are now the same as when we had but one-third our present circulation.

**THE RURAL ANNUAL.**—Every reader of the *Genee Farmer* should have the *Rural Annual*. We will send prepaid to any address on the receipt of 25 cents in postage stamps. Any of our agents who have got up a club of eight subscribers can have eight copies of the *Rural Annual* for \$1.00, sent prepaid by mail to any address. Everyone getting up a club of eight subscribers for the *Farmer* at our lowest club rates of 37½ cents each, is entitled to the *Rural Annual*. If any have not received it, we will send it immediately when notified of the fact.

**CIRCULATION OF THE GENESEE FARMER.**—Thanks to the disinterested efforts of our numerous friends who have acted as agents for the *Genee Farmer*, our circulation this year far exceeds our most sanguine expectations. We have already worked off thirty thousand copies of the February number, and shall have to print another edition in a short time. This unprecedented success will stimulate us to still greater efforts to improve the *Farmer*. We shall spare no labor or expense to make it worthy of the most liberal patronage.

**CARELESS POSTING.**—The records of the Dead Letter Office show that there must be a great amount of ignorance or carelessness in regard to posting letters, and is probable that the latter preponderates. A careful business man pays the utmost attention to preparing letters for the mail, and observes the rule of always looking up the address of each one before depositing in the post office. During the year which terminated on the 30th of September last, there were found 12,102 letters which contain money, amounting in the aggregate to \$61,239.

**THE GENESEE FARMER FOSTERS A LOVE FOR AGRICULTURE.**—A farmer observed, the other day, that his boys had rather disliked the business of farming; but when he took a number of the *Genee Farmer* home to examine, the boys read it with interest, and observed that they would do better if he would subscribe for it. He did so; and says the boys now take more interest in farming, and are highly delighted in reading the *Farmer*. I think many other farmers might do likewise, with the same advantage.—J. T. SERGEANT, Sand Brook, Hunterdon Co., N. J.

**MISTAKES.**—We are always willing to correct mistakes. If any of our subscribers do not receive their papers, we hope they will inform us at once, when we will most cheerfully send them.

We have received many excellent communications which we are obliged to leave out this month. We trust our friends will continue to favor us with their experience.

THERE were 312,000 tons of Peruvian guano imported into Great Britain last year. This is a larger amount than in any previous year.

**TRIAL OF REAPERS IN BELGIUM.**—The Central Society of Agriculture of Belgium proposes to hold an international trial of reaping machines at Brussels, during the present year. Three thousand francs have been voted to be distributed in one or two prizes and to go toward the payment of all kinds of expenses connected with the carriage of the machines.

R. W. SAWTELL, Esq., of Woodstock, C. W., writes: "Our winter is mild but unhealthy, the extremes of cold & heat being so sudden. On the 10th of January, the thermometer ranged as low as 40° below zero in some parts, and three days after, 54° above—a variation of 94° almost enough to kill a horse."

THE GENESEE FARMER, a monthly of thirty-two pages, published by JOSEPH HARRIS, at Rochester, N. Y., is the best, and probably the cheapest and best, agricultural publication in the country. It is standard authority with farmers, comes from the very garden of the Western world, and its columns are filled with precisely such practical matters and original suggestions as every real farmer needs to possess. It is only half a dollar a year. Specimens sent free on application. Now is the time to subscribe, with the new volume, which commenced this month. It is really more valuable as a farmer's manual than most of the two-dollar papers in the country.—*Easton Times, Bath, Me.*

### Inquiries and Answers.

**TREATMENT OF SANDY SOILS.**—I have purchased twenty-acre of soil of which, for the most part, is a sandy loam overlying a subsoil of almost pure sand, and is valuable for nearly every purpose, but especially for gardening. A small portion, however—some two acres,—the former proprietor considered nearly barren, and has laid it out for several years. I desire to plant this piece of grapes in the spring, thinking it adapted to that purpose; and before doing so, I wish to prepare it in a manner best calculated to answer my purpose. The question is, how all I manage? Trenching, in my opinion, is useless, as the subsoil is too open and porous already—a leachy sand. Would a good coating of lime—say fifty bushels—spread the surface, be of any real benefit to the soil or vines? Would digging large holes, two feet deep and six or eight feet wide, and filling them with a rich compost, ensure a good growth and bountiful yield? or what other method would you recommend as a proper cultivation for grapes? What compost would you recommend as the most suitable for out-door culture of vines, and the proper proportion of the different ingredients? Your answer will much oblige—H. L., *Drummondville, C. W.*

It is always less trouble to ask questions than to answer them; but as we know our correspondent is an intelligent inquirer desirous of information, we venture a few suggestions.

Judging from your location and our knowledge of the soil, we should fear the two acres is somewhat springy—as for the most of the year too much wet to be warm and productive, and possibly has large patches of quicksand. The first step will be to provide ditches or underdrains, three feet or more below the surface, to carry off surplus water. If the sand contains too little mold or soil, measures should be taken to supply the deficiency in the cheapest and most effectual manner. If the whole two acres could be top-dressed with clay soil several inches deep, and allowed to freeze through the winter, it would become broken up so as readily to incorporate with the sand. We do not see why it is not practicable to ameliorate sandy soils by the use of clay as are clay soils by the use of sand. A farmer friend of ours, on the shore of Lake Erie, west of Buffalo, has changed the character of some of his stiff clay lands by the use of beach sand, and expresses it as

his opinion that for this use a load of sand is worth as much as a load of barn-yard manure. We would recommend to our Canadian correspondent, if practicable, a reversal of this process. If applied at once, it would become quite soft by spring, when we should recommend trenching the whole plot at least two spades deep, leaving the clay soil at the bottom; or, what would be better, mixing it through the whole.

When a sandy soil is broken up and worked as deep as we recommend, little danger of leaching is to be apprehended. This is more liable to occur, if at all, in a soil that is not often stirred, though very little danger is to be apprehended from this source. The effect of passing water through sandy loam or other soils, is to deprive it of its ammonia and vegetable matter held in solution, leaving it pure and palatable. This matter left in the soil is ready to be taken up by the roots of plants, as needed; and if good drains are laid to carry off the surplus water, the soil is rather benefited than injured by the process of filtration. It is not necessary to pursue this matter in detail at this time.

Lime is used as an ameliorator of the soil in so many different cases, and for such a variety of purposes, that it is not easy to give any definite rule for its application. Applied in a caustic state, it acts on the vegetable matter in the soil, rendering it more soluble—a preparation for its assimilation as food of plants. Applied to a loose, sandy soil, the rain will wash it down among the particles of sand, where, acting as a solvent of the silica, it prepares it to enter into the structure of plants. So of clays. They often contain all the necessary constituents of plants, held so firmly together by their affinities that plants can not obtain their support. The application of quick-lime, breaking up these affinities, enables the soil to yield life-giving food to the crop. If lime were to be applied to the soil in question, it should be plowed, the lime sown broadcast, and a hoed crop—corn or beans—planted and often hoed, that the whole may become incorporated. This crop should be succeeded by such treatment of the land as will best prepare it for the use designed.

In addition to the lime, we should advise a fair dressing of ground bones, which may be had at Buffalo, and are an excellent fertilizer for vines.

In the place of digging holes and filling them up with compost, as proposed, we should trench and enrich the whole to some extent; and after the vines had been planted and commenced growing well, top-dress the whole soil with compost, ground bones, or well-decayed barn-yard manure.

We are not aware of any rule for making compost heaps. Barn-yard manure, leaves, decaying vegetable matter, swamp muck, gypsum—all in indefinite quantities—mixed and commingled until it is well decomposed, makes a good compost for such purposes.

**APPLE TREE BORER.**—(H. H. D., Willoughby, C. W.) The worm to which you refer is unquestionably the Apple Tree Borer. They are sometimes in trees sent out from nurseries, and often appear in localities where it is difficult to account for their presence.

The Borer, in its winged state, deposits its eggs upon the bark, near the root of the tree. Sometimes they are deposited in the first fork. Each egg hatches a maggot, which eats its way directly downward in the bark. By

scratching off the outer coat, its course can be traced, and its location found by a blackish spot about as large as a wheat kernel, by cutting into which the worm will be exposed to view.

Alkaline washes are destructive to insects, their eggs and larvae, one of the most common of which is good soft soap. Some cultivators put a handful of the soap in the fork of the tree. Downing recommends coating the tree with a paint made of soap, sulphur, and tobacco water. Dr. FRENCH recommends puncturing the bark at the upper end of the burrow and pouring in hot water from a vessel having a small spout, repeating the water at intervals until it oozes out at the bottom of the hole. A heat of 150 deg. (somewhat below the boiling point) will kill the worm if the water reaches it in any considerable quantity.

**CORN vs. RYE AS FOOD FOR HOGS.**—I wish to know the comparative difference between a bushel of corn and a bushel of rye, to be ground and fed to fattening hogs and cattle, the rye being the cheapest in this vicinity.—P. W. HALL, *Loraine Co., Ohio.*

We know of no experiments bearing on this point. The composition of dry corn and rye, according to JOHNSTON, is as follows:

	Corn.	Rye
Starch, &c.....	71.6	78.0
Protein compounds.....	12.3	12.5
Fatty matter.....	9.0	8.5
Husk.....	5.9	
Mineral matter, } .....	1.2	6.0
	100.0	100.0

The amount of protein or *flesh-forming* compounds is nearly identical in both corn and rye. Rye contains the most starch, and corn the most fatty matter. Whether oil is more fattening than starch, is a disputed point. Taking the starch and fatty matter together, there is very little difference between corn and rye in the amount of heat or fat-forming compounds. So far as these analyses indicate, there is very little difference in the value of corn and rye as food. Rye is said to be easier of digestion than corn. *Morton's Cyclopedia*, an excellent authority, says "rye is inferior to wheat as a bread-corn, to barley as food for hogs, or for the use of maltsters or distillers, or oats as food for horses."

We shall be glad to hear from those who have had experience on this subject.

**THE RELATIVE VALUE OF LIQUID AND SOLID EXCREMENTS.**—(J. S.) A man passes about 95 lbs. of feces and 1,094 lbs. of liquid in the course of a year. The former contains 1.2 lbs. of nitrogen; the latter, 10.8 lbs; so that the liquid is worth about nine times as much as the solid excrements. But, from this statement, many persons appear to have got an erroneous impression. We have heard it publicly asserted that a *given weight* of urine is nine times as valuable as the dung. This is not the case. One hundred pounds of urine contains no more nitrogen and other food of plants than one hundred pounds of dung. The dry, solid matter of the urine, is exceedingly valuable—very much more so than that of the dung; but it is mixed with so much water as greatly to reduce its strength. It is, of course, of great importance to preserve all the liquid on a farm, inasmuch as by far the greater proportion of valuable fertilizing matter is found in it; but when we talk of purchasing the liquid, we must remember that, from the great quantity of water united with it, a ton of urine is worth no more than a ton of good dung.

**MARSH WILLOWS.**—(J. L., Clay, N. Y.) The usual method of subduing these willows is to burn the grass in the marsh early in the spring, following this with a scythe or brush-hook, cutting all the willows left, and piling them to be burned some future day. Sow with red top and mow the same season, cutting off any young twigs of willow that have sprouted, which sheep will eat as well as the hay.

When there is not grass enough to burn well and the brush are thick, it will be best to cut them during the winter and spring, and burn as soon as dry enough. Sow on red top, or timothy if the land is not too wet, and pasture the piece. If sprouts come up, run over them with a brush-scythe the latter part of the season. Clip the off in this way a few times, and they generally run out. The Red and Yellow are the worst.

It will assist in destroying them to make good ditch along the sides of the field, which not only drain the land, but, if made broad, serve as a fence. The muck thrown out makes good material for compost, or may be applied as a top-dressing after being frosted one winter.

If willows can not be subdued in this way, it will be profitable to set up a basket-factory, and thus turn the to good account.

**PROPAGATING PEACH TREES.**—I wish to inquire if peach trees have ever been successfully propagated by layering as recommended in the *Patent Office Report* for 1856, p. 353 and 359. Any directions for it would be gladly received. Would not trees thus obtained probably be more vigorous than seedlings? This is certainly the case with the apple and the pear, although with some other trees apparently makes but little difference (a).

I also wish to inquire particularly if peach trees at Rochester and Utica are ever affected with the yellows (b).

Which of the late-ripening varieties are found to be the most profitable? (c)

Is *Hyslop's Cling* cultivated with you? If so, what do you think of it? *Elliot's Fruit Book* recommends highly as a substitute for *Heath Cling* where that do not ripen well (d).—H., *Leominster, Mass.*

(a) Peach trees may undoubtedly be propagated in the manner mentioned above, but it would certainly be unadvisable to adopt it as a practice. It may be a means of furnishing amusement but not profit.

(b) Not to our knowledge.

(c) *Crawford's Late, Red Cheek Melocoton, and Oldman on Free*, are among the best and most profitable late ripening varieties.

(d) *Hyslop's Cling* is not cultivated in this vicinity, as we are not acquainted with it.

**INCrustATIONS ON STEAM BOILERS.**—(P. R., Harperburg, C. W.) It has always been difficult to prevent or remove these incrustations, which always occur when hard water, or water containing lime, is evaporated. In the common tea-kettle they may be partially prevented by keeping an oyster shell in the kettle, for which the precipitated lime has a greater affinity than for the metal of the kettle. This is not practicable in boilers.

Recently, a patent has been granted in England, which is represented as being very efficient for removing the incrustations. The method is to put a piece of India rubber, about half a pound, in a boiler of 100 horse-power where it is allowed to remain continually, small quantities being added occasionally, so as to keep the water a light brownish color. This is said not only to prevent, but speedily to remove in a few hours all incrustations formed. It is simple and easily tried.

**OSAGE ORANGE.**—Will you inform me if Osage Orange ants, four years from seed, will live if transplanted with the next spring? Also, if Buckthorn and English Hawthorn will answer to plant in where the Osage Orange has been killed off, the last two years, a foot or more below cutting, and sprouted out near the top of the ground. My hedge has been planted five years next spring, and no success yet. It is quite full and wide enough at base, but I can not get it more than two or three feet high.—R. B. Thomas, C. W.

The Osage Orange is very tenacious of life, and would probably grow if transplanted as you propose; but unless it has been pruned so as to make it throw out branches near the bottom, it would be of little use in the hedge.

Can not say how the Buckthorn or Hawthorn would answer to replace those killed; but their habit of growth so much slower than the Osage Orange, that they would probably be of little value. It is generally supposed that the extreme heat of summer in this climate renders the Hawthorn too uncertain for a hedge plant.

Summer clipping of the branches is recommended to remedy winter-killing. Cut back early in July, after which a new growth will come forward and be killed off; at that part below the July clipping will probably mature sufficiently to stand the winter. If you have a hedge wide enough and three feet high in five years, it ought to be satisfactory; and the summer growth should be sufficient to turn any kind of stock.

**DESTRUCTION OF WIRE-WORMS.**—(L. B. HANFORD.) Any have been the devices and applications to rid the soil of these pests, but with very indifferent success. Arsenic, lime, unleached ashes, &c., have been sown with temporary benefit; but we are not aware that any of these applications have destroyed the worms effectually. A crop of buckwheat, which they do not relish, has been effectual for a time in starving them out, or, what is more probable, inducing them to migrate to more congenial fields. J. C. of Amherst Island, C. W., gives the following experiment in checking their ravages in a field of barley, on a black loam with a clay subsoil:

"The land had previously been meadow, followed by barley, when I perceived the barley was being cut off in patches, much of it turning yellow and languishing. I sowed broadcast on the land fresh lime and salt, in equal proportions. The good effects were soon perceptible—the grain assumed a healthy appearance, and, as far as I could perceive, no more was cut down, and the field yielded a good crop."

Had Mr. G. stated the quantity sown per acre, his experiment would have been more satisfactory.

Can not others add the result of their experience upon this subject.

**FEEDING CLOVER HAY.**—(ANDREW FRIEDLE, Blairsville, Pa.) We should think, from the description given of your hay, it had been hurt by being put into the barn before it was well cured. You think it is cured too dry, and neither cattle nor horses eat it well. Our recommendation would be to cut it short with a hay-cutter, moisten it with water as you feed it, and sprinkle on each mess, while damp, a small measure of Indian meal, shorts, or other ground feed. Farmers complain that clover hay gives their horses a cough, or the heaves. All danger of this difficulty may be obviated by feeding it as here indicated.

**CLOVER SEED OUT ALL WINTER.**—(M. HASKINS.) Your clover seed, which you were unable to harvest, will not be injured by the frost. It will be good, if you can gather it.

**LICE ON CALVES.**—(M.) Feed your cattle well, and keep them clean, and they will not be troubled with lice. If they are, there a dozen methods of destroying them. The easiest, perhaps, is to wash them with a decoction of tobacco. Some fumigate with tobacco, by burning it under the belly and covering the animal with a blanket. Another way is to apply oil or grease along the back, shoulders, around the eyes, and other parts of the body. Mercurial ointment is very effectual, but requires to be used with caution. We have known the tobacco water make the animal sick when too strong. Better apply a weak solution two or three times, than run the risk of impairing the health of the animal by too strong a dose at once.

If calves are troubled with lice, give them a little sulphur in their milk. This will generally prove effectual. Be sure that the pen is dry, well ventilated, but not too light, and supplied with plenty of clean straw.

**SEVERAL INQUIRIES.**—There are many things about farming of which I am ignorant; and it is frequently the case that what one wishes to know, many others are also desirous of learning.

My horse-barn has a cellar under it, where, beside keeping my wagons, plows, harrows, etc., etc., I also keep my calves and colts through the winter. Of late, I have practiced spreading my horse manure where the calves leave their droppings, so as to have the manure well mixed. This prevents the horse manure from burning. Can you, or some of your readers, tell me whether it is better to spread the manure daily, cold, or let it ferment slightly so as to steam a little?

There is another thing I would like to know. I have four horse-stalls, with troughs to convey the urine into two large iron-bound oil-casks which stand in the cellar. What materials shall I mix with the urine, and how can I make the most of it? I have practiced putting in leached and unleached ashes, plaster, hen dung, lime, and salt; and putting about a gill into each bill of corn, when planting, and have received great benefit from it. I have to be careful and not drop it directly on the corn. How much of this is wrong, and what would be better? Will some one tell?

One thing more. For some years I have been in the habit of going into my corn field, before cutting up my corn, and gathering the first ripe corn for seed, braiding it up, and keeping it out in the sun on pleasant days, until dry enough to put away in a tight chest where mice can not get at it. This, I have discovered, makes it early, and I have no trouble with poor seed corn; but the ears gradually become smaller every year. Can this be prevented?—A. TIFFANY, Gibson, Ia.

**RAISING MULES.**—Considerable has been said about Mules & Horses, in which we have been interested. An impression prevails that mares will not breed colts after having foaled mules. It has deterred many from raising mules who would otherwise have done so. Is there any truth in the theory? Will some one answer?—W.

#### Notices of Books, Pamphlets, &c.

Our columns are so crowded, this month, that we can give only the titles of the new books recently received.

**THE LAND AND THE BOOK;** or Biblical Illustrations drawn from the Manners and Customs, the Scenes and Scenery, of the Holy Land. By W. M. THOMPSON, D. D. twenty-five years a Missionary of the A. B. C. F. M. in Syria and Palestine. In two volumes, with Maps, Engravings, &c. New York: HARPER & Bros. 1559. For sale by D. M. DEWEY, of this city.

**CORNELLE'S GRAMMAR-SCHOOL GEOGRAPHY;** forming a Part of a Systematic Series of School Geographies. Embracing an extended course, and adapted to pupils of the higher classes in Public and Private Schools. By S. S. CORWELL. New York: D. APPLETON & Co. For sale by Wm. ALLING, of this city.

**THE COMEDIES OF TERENCE.** Literally Translated into English Prose, with Notes. By HENRY THOMAS RILEY, B. A., late Scholar of Clare Hall, Cambridge. To which is added the Blank Verse Translation of GEORGE COLMAN. New York: HARPER & Bros. 1859. For sale by D. M. DEWEY, of this city.

**HOWARD AND HIS TEACHER, THE SISTERS INFLUENCE**, and other stories. By Mrs. MADELINE LESLIE, author of "Cora and the Doctor," "Courtesies of Wedded Life," "Household Angel," &c., &c. Boston: SHEPARD, CLARK, & BROWN. For sale by WM. ALLING, of this city.

**WHAT WILL HE DO WITH IT?** By PARTRISSE CAXTON. A Novel. By Sir E. BELWER LYTTON, Bart., author of "My Novel," and Varieties of English Life, "The Caxtons," "Pelham," "Night and Morning," "The Last of the Barons," &c. New York: HARPER & BROS. 1859.

**SYLVAN HOLTS DAUGHTER.** By HOLME LEE, author of "Kathie Brande," "Gilbert Messenger," "Thony Hall," &c. &c. New York: HARPER & BROS. 1859. For sale by D. M. DEWEY, of this city.

**ERI: or, Little by Little.** A Tale of Boston School. By FREDERICK W. FARRER, Fellow of Trinity College, Cambridge. New York: RIDD & CARLETON. Price \$1. For sale by D. M. DEWEY, of this city.

**THE AFTERNOON OF UNMARRIED LIFE.** A companion to "A Woman's Thoughts about Women." New York: RIDD & CARLETON. Price \$1. For sale by D. M. DEWEY, of this city.

**DOBA DEANE, or the East India Uncle; and MAGGIE MILLER, or Old Hagar's Secret.** By Mrs. MARY J. HOLMES, author of "Lena Rivers," &c. New York: C. M. SAXTON. 1859.

**MOUNT VERNON:** A letter to the Children of America. By the author of "Rural Hours," &c. New York: D. APPLETON & Co. 1859. For sale by D. M. DEWEY, of this city.

**OUR CHARLEY, and What to do with Him.** By Mrs. H. B. STOWE. Boston: PHILLIPS, SIMPSON, & Co. For sale by D. M. DEWEY, of this city.

**SOUTHWOLD.** A Novel. By Mrs. LILLIE DEVEREUX UMSTED. New York: RIDD & CARLETON. Price \$1. For sale by D. M. DEWEY, of this city.

**ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS FOR 1859.** Albany: LUTHER TUCKER & SON. 1859. Price 25 cents.

**TRYING TO BE USEFUL.** By Mrs. MADRINE LESLIE. Boston: SHEPARD, CLARK, & BROWN. 1859. For sale by WM. ALLING, of this city.

**THE JUVENILE ALMANAC FOR 1849.** Boston: SHEPARD, CLARK, & BROWN. For sale by WM. ALLING, of this city.

**THE LADIES' ALMANAC FOR 1859.** Boston: SHEPARD, CLARK, & BROWN. For sale by WM. ALLING, of this city.

**BUILT'S GARDEN ALMANAC AND MANUAL FOR 1859.** By R. BRIST, Philadelphia, Pa.

## REVIEW OF THE MARKETS.

GENESEE FARMER OFFICE,  
ROCHESTER, N. Y., FEBRUARY 21, 1859.

The present aspect of the market is one of more than usual interest. Previous low prices had induced a speculative feeling, which was soon manifest in a rapid advance. As usual, on such occasions, matters were run somewhat to an opposite extreme. The advance, which was most marked in the low and high grades, was equal to one dollar a barrel in three weeks; in medium grades it was not so great. That prices had previously fallen too low, does not admit of a reasonable doubt; that the re-action was of too strong and rapid a character, is scarcely less a matter of doubt; that the last crop, in this country, was below an average, may be regarded as certain; that speculation has had much to do in producing the present state of the market is equally apparent. At current prices, a foreign demand is out of the question, as in England and Continental Europe they are lower than here. The home demand, therefore, is all on which to depend for support. This may be sufficient, speculative and real, to sustain existing rates until the opening of spring, especially if the anxiety in Europe should not subside. If that should manifest itself in a more decided form, a further advance may take place; otherwise, a decline will most likely follow the opening of navigation. The prospect of the future crop will then have its influence; but it is yet too soon to form an opinion on that point.

**FLOUR AND GRAIN.**—The market for Flour and Wheat is very sensitive. An advance brings out increased supplies, and these produce a retrograde movement in prices. If speculators

should realize to any extent, a material decline would follow. In coarse grain, the market is more steady and healthy, and with the exception of Corn and Oats, has a slight upward tendency.

**PROVISIONS.**—The market generally firm and tending upward. A speculative demand is apparent in Beef and Pork arising, perhaps, from a supposed deficiency in the general stock or an apprehension of trouble abroad. In either case doubtful.

**WOOL.**—The market is universally firm. Here, we think, it holds its own. Speculators are anxious to make contracts for the next clip. Farmers, look well to your interest in this matter. The practice of selling anything before it is ready for market, is to say the least, of doubtful policy. We think the quotations for this article, especially the high grades, are decidedly too low.

### ROCHESTER MARKET.—Feb'y 21.

**FLOUR.**—To the trade—extra and double extra, \$6.50@87; extra State, \$5.50; superfine State, \$4.75@4.25; market firm.

**GRAIN.**—White winter wheat, \$1.60@1.70; red do, \$1.30@1.40; spring, 90c@1.10 according to quality; market firm, with little doing. Barley firm at 75c. Corn, 75c@80c. Oats, 50c@55c by weight. Buckwheat, 44c.

**SEEDS.**—Clover, \$5.75@6. Timothy, \$2.25@3. Red to \$1.50@3.

**PROVISIONS.**—Dressed hogs, 7½c@8c; Beef, 5½c@6½c; Mutton, 6c@5½c to the trade. At retail—Beef, 7c@11c; Mutton 6c@8c; Pork, 10c. Hams, 11c@12c. Shoulders, 9c@10c. Lard, 18c. Butter, 20c@22c. Eggs, 16c@18c.

**CATTLE.**—Live weight, 4½c@5c per lb. Sheep, \$3.50@4. per head.

### NEW YORK MARKET.—Feb'y 18.

**FLOUR.**—Active; demand of a speculative character. Superfine State, \$5.25@5.50; extra do, \$5.00@6.10; Michigan, Indiana, Ohio, and Iowa superfine, \$5.40@5.60; extra do, \$6.00@7.80; Ohio round-hoop, \$6.40@6.50. Southern firm; Baltimore \$5.90@6.75; Brandywine, \$6.40@7.25; Petersburg city at Richmond city, \$6.75. Gallego and Haxall Canadian, \$6.50@7.25 for extra. Eye flour quiet at \$3.75@4.10 for the range. Corn meal unchanged; Jersey, \$3.65@3.75; Brandywine, \$4.2

**GRAIN.**—Wheat dull; winter Western, \$1.30; red Southern \$1.35@1.40; white Canada, \$1.27; white Michigan, \$1.47@1.5 red Indiana, \$1.40. Rye, 53c@57c. Oats, 50c@54c for Jersey Delaware, and Pennsylvania; 54c@59c for State; 61c@64c Canadian and Western. Corn dull; yellow Jersey and Southern 80c@82c; white do, 80c@83c; Western mixed, 81c@86c.

**SEEDS.**—Clover, 11c@11½c. Timothy—mowed, \$2.00@2.1 reaped, \$2.25@2.75 per bushel. Red top, per five-bushels at \$3.50@4.75.

**PROVISIONS.**—Pork steady; new mess, \$18; old do, \$17.5 prime, \$13.25@13.50. Beef—country mess, \$7.50@9; count prime, \$6.50@7; Western re-packed, \$8.75@11; extra mess \$11.50@12; common qualities dull and heavy, extra grades firm prime mess quiet at \$16@19. Beef hams, \$34@17.50. Dressed hogs dull at 8½c@9c. Hams, 5½c@9½c. Shoulders, 6½c@7 Lard dull at 11½c@12c for City and Western. Butter—Ohio, 14c@18c; State new, 16c@27c; Orange Co., 25c@25c. Cheese fair to prime, 5½c@11½c.

**WOOL.**—Saxony fleeces, 53c@55c; full-blood Merino, 47c@50 ½ to ¾ do, 42c@46; ½ do 38c@40c; extra pulled, 41c@44 superfine do, 37c@40c; No. 1, pulled, 30c@34c; Cal. fine u washed, 22c@27c; do common unwashed, 10c@17c.

**CATTLE.**—Tendency upward. First quality, 10½c@11½ medium, 9½c@10c; ordinary, 7½c@8½c; extra good, 12½c@13½c per lb. net weight. Sheep, \$3@3.29 per head for the range.

### PHILADELPHIA MARKET.—Feb'y 14.

**FLOUR.**—\$5.75@6 for extra. Eye Flour, \$4@4.25. Co Meal, \$3.62.

**GRAIN.**—Red Wheat, \$1.37@1.48; White, \$1.45@1.55. R scarce at 8c. Yellow corn, 80c@82c for dry lots. Oats, 51c@5 for Pennsylvania. Barley, 58c@37c.

**SEEDS.**—Clover, \$6.75@7.25. Timothy, \$2.12. Flax, \$1.75. **WOOL.**—Stock light. 42c@65c per lb.

**CATTLE.**—An upward tendency. \$7.50@11 per 100 lbs. 1 good to prime; extra quality, \$12. Sheep advanced in price. Sales at \$3@3.6 per head, according to quality.

**Feb'y 17.**—Brenstuffs firmer but without activity. Price Wheat scarce and wanted. Provisions quiet; Mess Pork, \$18. Lard lower, selling at 12½c@13c.

### BUFFALO MARKET.—Feb'y 17.

**FLOUR.**—Market active; superfine, \$5@5.50; extra, \$5.50@6.75 the range.

**GRAIN.**—Wheat—holders firm, above the views of buyers Ohio red winter, \$1.30; white Illinois, \$1.50; white Kentucky \$1.60@1.70. Corn firm at 81c@83c for new. Oats nominal 60c. Barley—Western, 60c@65c; State, 75c@76c.

**SEEDS.**—Clover, \$6.50@6.75. Timothy, \$2.25@2.75.

**PROVISIONS.**—Pork—mess, \$16.50@17.50; prime, \$12.50@13. Lard, 11½c. Hams—green, 8c. Shoulders, 6½c. Smoke

**CHICAGO MARKET.—Feb'y 16.**

LOUR—Winter red and white, \$5.75 to \$5.90; extra spring, 9; superfine do, \$3.75. Rye Flour, \$5.  
 RAIN—Wheat—receipts heavy, but market buoyant; No. 1 winter, \$1.26 to \$1.27; No. 2 red, \$1.14 to \$1.15; Spring, 88c according to quality. Corn—shelled, 63c to 65c per 60 lbs. s, 53c. Rye, 90c. Barley, 50c to \$1, for medium to prime.

**CINCINNATI MARKET.—Feb'y 16.**

LOUR—A speculative feeling manifest. Superfine, \$5.50 to 6; extra, \$5.15 to \$6.  
 RAIN—Wheat—white, \$1.25 to \$1.35 for fair to strictly prime; \$1.15 to \$1.25; closing firm. Corn in fair demand, with an up tendency; fair mixed, 80c; choice white, 82c to 85c. Rye at 95c to 97c. Barley dull at 70c to 75c for prime fair.  
 ROYSTONS—Dull and declining. Mess Pork, \$15 to \$18.50. ea—sides, 9 1/2c; clear, 11c. Shoulders, 7 1/2c. Hams, 11c to 11 1/2c.

**TORONTO MARKET.—Feb'y 16.**

LOUR—Stock low. Superfine, \$6 to \$6.25; fancy, \$6.50; ex- \$6.75 to \$7.  
 RAIN—Wheat steady; good shipping parcels, \$1.50 to \$1.60; poor and medium, \$1.35 to \$1.45; deliveries light; spring wheat \$1.40 to \$1.49. Barley active at 50c to 55c, rye, 70c to 75c. Oats at 60c. Peas in good demand at 55c to 90c.  
 ROYSTONS—Pork—prime hogs, \$6.50. Mess Pork, \$15 to 16—of—hind quarters, \$5 per 100 lbs. Butter, 20c.  
 CATTLE—\$5 to \$6 per 100 lbs., deducting one-third for shrink—sheep, \$4.50 to \$5 each. Calves, \$5.

**LONDON MARKET.—January 24.**

consequence of increased supplies, the late advance has been English wheat, \$1.10 to \$1.45; American, \$1.25 to \$1.45. rican flour, \$4.60 to \$5.55 for sour and sweet. Barley, 90c to 5. Oats, 70c to 95c.  
 FEEDS—Red clover, 12c per lb.; white do, 15c to 18c. Linseed at \$1.95 per bush. for sowing and \$1.70 for crushing.  
 WOOL—Firm, with a prospect of higher rates. Prices range \$30 to 45c per lb.

**LIVERPOOL MARKET.—January 24.**

LOUR—Western canal, \$4.50 to \$5.25; Philadelphia and Ohio, \$5 to \$6; sour, \$4.30 to \$4.30. Corn meal, \$3.65 to \$3.90.  
 RAIN—White wheat, \$1.65 to \$1.90; red do, \$1.40 to \$1.60 per bu. Yellow corn, 56c to 58c; white do, \$1 to \$1.02; mixed, 54c per bush. of 60 lbs.  
 FEEDS—Red clover, 12c to 13c per lb. Linseed, \$1.50 to \$1.70. WOOL—Stock light and holders very firm. 36c per lb.

**BRIGHTON CATTLE MARKET.—Feb'y 17.**

market, 1230 Beeves, 200 Stores, 2000 Sheep and Lambs, 120 he.  
 RICES—Market Beef—Extra, \$8.00 to \$8.25; First quality, 5; Second, \$6.75; Third, \$5.00. Milch Cows—\$30 to \$40; imon, \$19 to \$20. Veal Calves—\$3 to \$5. Yearlings—none. b Years old—\$20 to \$24. Three Years old—\$24 to \$31. Hides 1/2c to 3/4c per lb. Calf Skins—13c to 14c per lb. Tallow—7 1/2c to 8c. Sheep and Lambs—\$1.75 to \$2.00; extra, \$3.00 to \$6.00. Pelt 1.50 to \$1.75. Swine—Pigs, 6 1/2c; retail, 6 1/2c to 7 1/2c.

**ADVERTISEMENTS,**

secure insertion in the FARMER, must be received as early as the 10th of the previous month, and be of such a character as to be of interest to farmers. TERMS—Two Dollars for every hundred words, each insertion, PAYABLE IN ADVANCE.

**APPLE-PIE MELONS**—39 cents per dozen seeds. March—H. W. H. GARDNER, Sublette, Lee Co., Ill.

**AYER APPLE GRAFTS**—By mail, post-paid, 36 cents per dozen. Send stamps. F. A. ROCKWELL, Ridgefield, Ct. \*

**NOVELTY—THE MEXICAN COSHAW**—This new mammoth vegetable is perfectly adapted to the Northern States. It is unequalled for its edible qualities, and makes delicious pies. Price of seeds, 25 cents per package, sent to any address postpaid. Dress VOLNEY LEONARD, Springfield, Bradford Co., Pa. 1\*

**VALUABLE FARMING LANDS FOR SALE**—A portion of the splendid farming lands formerly belonging to the Hon. B. Dickinson, situated in the town of Hornby, Steuben Co., N. comprising 2000 acres, is now offered for sale. Parties desiring any part of this highly cultivated land, may have it in such quantities as they may desire, by applying to the agent at the farm.—2t ALEXANDER OLCOTT, Corning, N. Y.

**DRAIN AND ROOF TILE MACHINES**—The Subscriber is Patentee and Manufacturer of the best Machines extant making Drain and Roof Tile, Hollow and Solid Brick, &c. Machine grinds the clay, moulds it into tile, brick, &c., and evers them upon the drying boards, at the same operation, by use of another power. For further particulars, address, March, 1859.—1t F. M. MATTICE, Buffalo, N. Y.

**CHERRY CURRANTS**—The undersigned, whose genuine Cherry Currants have lately attracted so much attention, will send to all who will apply for it, a circular giving much information about the cultivation of this excellent fruit, and how to make Currant Wine. Also, prices of plants and seed. It CHARLES F. EHRHARD, Ravenswood, Long Island.

**AGRICULTURAL IMPLEMENTS**—A large assortment, at manufacturer's prices, consisting of Endless Chain Horse-Powers and Threshers, Excelsior Fan Mill, Hay and Straw Cutters, Churns, Corn Shellers, Seed Sowers, Harrows, Cultivators, Road Scrapers, Iron and Wood Beam Plows, &c. &c. Send for a catalogue. A. LONGETT, March, 1859.—3t 34 Cliff street, New York.



**10,000 SOLD—THE PRACTICAL HORSE FARRIER**. Price 50 cents. Revised Edition, containing the treatment and cure of Diseases, the whole of KARY'S ART, with illustrated instructions, 100 valuable receipts, &c., &c., sent free with 20 seeds of the HUBBARD SQUASH, on receipt of eighteen postage stamps. E. NASH, Publisher, Auburn, N. Y. March, 1859.—1t\*

**WHOLESALE CATALOGUE FOR SPRING OF 1859.**

A. FROST & CO, Rochester, N. Y., Proprietors of the Genesee Valley Nurseries, have just published their Wholesale List No. 4, for the spring of 1859. The attention of Nurserymen who wish to obtain young Nursery Stock for planting, is specially solicited. Also, of those who desire to make extensive purchases of Trees and Plants for immediate ornament or fruits, for orchards and gardens. This Catalogue is sent to all applicants when a cent postage stamp is enclosed. For more full and complete information, the Proprietors refer to the following additional Catalogues, which are sent, gratis, by mail, to those who enclose a one cent postage stamp for each:  
 No. 1. Descriptive Catalogue of Fruits.  
 No. 2. Descriptive Catalogue of Ornamental Trees, Shrubs, Roses, &c., &c.  
 No. 3. Descriptive Catalogue of Dahlias, Verbenas, Green-House Plants, &c. March, 1859.—1t.

**FARMERS! READ! READ! READ!**

This Glorious News!

MR. G. PIERPONT, of Rockford, Illinois, purchased one of Share's Coultter Harrow Pulverizer and Grain Covers, with which he covered 90 acres of wheat on his farm, by merely going over the field once after it was sown. He also covered or harrowed in 15 acres with the common or Scotch Harrow, (and worked over two or three times), on the same farm, to convince himself of the difference between the two machines. The yield, after harvesting the grain, was, on an average, three bushels more per acre from the land on which he used Share's Harrow than that on which he worked the common Harrow, thereby saving (by pulverizing with our Harrow instead of scratching the top of the land and packing it with the Scotch machine) say 270 bushels of wheat, which, at the present price, (\$1.40 per bushel), is \$378, or the cost of 25 machines. Will not this fact induce farmers to purchase this new and improved implement, which will make their labor easy and cheap? They are manufactured only by the subscribers, to whom if orders are sent they will be promptly attended to; and the sooner the better, as the demand for them is constantly increasing. Address for a catalogue. The weight of the machine is 200 lbs. Price \$15 and freight. PEASE & EGGLESTON, Albany, N. Y. March, 1859.—1t

**SEEDS! SEEDS!!**

FIELD, GARDEN, AND FLOWER SEEDS!

WE are now fully supplied with one of the largest and most complete stocks of Garden, Flower, and Field Seeds, ever offered to the Western public. Our stock has been made up with much care from the best seed gardens of America and Europe. A large share are home-grown seeds, being grown under our own inspection, and which we can recommend as true to name and of the best quality.

Among our assortment of Seeds may be found over 150 VARIETIES OF FLOWER SEEDS, 800 do GARDEN SEEDS, HUNGARIAN GRASS SEED, and CHINESE SUGAR CANE AND IMPHEE SEED, &c., &c.

From a long acquaintance with the trade, we feel confident no one can offer better inducements to those desiring seeds. Those who design to emigrate to Kansas and Pike's Peak, would do well to take with them a box of fresh Garden Seeds. We also keep constantly on hand a full assortment of

**Implements and Machines**

Suited to the Field, Garden, Orchard, and Household. We are fully prepared to supply the trade on the most liberal terms. Full Catalogues furnished gratis on application: if by mail, enclose a stamp. Address H. D. EMEY & CO., 204 Lake street, Chicago, Ill. March, 1859.—2t







[SIBERIAN ARBOR VITAE]

ROCHESTER

COMMERCIAL NURSERIES.

H. E. HOOKER & Co.,

Proprietors of these old and well-established Nurseries, would call the attention of Amateur Planters, Nurserymen, Dealers in Trees, to their large and well-assorted stock for spring and autumn of 1859.

Special care is taken not to send out anything which will not test with absolute certainty, and purchasers may rely on receiving perfect satisfaction.

Among the items cultivated upon the Nursery Grounds, in large quantities, will be found APPLES, on free growing stocks, for Orchards, two to four years old.

APPLES, on Paradise and Douceain stocks, for Dwarfs, making beautiful trees for the garden.

PEARS, on their own stocks, two to three years from the bud.

PEARS, on Quince, A No. 1 trees, two years, very thrifty. Also, grafted trees, with fruit buds.

CHERRIES, on Mazzard stocks for Standards and Mahaleb Dwarfs, very fine.

PEACHES, one to two years from the bud.

PLUMS, on Plum stocks.

RANGE QUINCE—a supply of very fine plants.

NECTARINES, APRICOTS, &c.

GRAPE VINES—Always on hand a large stock of all the Native and Foreign hardy varieties.

SMALL FRUITS, including a very extensive assortment of CURRANTS, GOOSEBERRIES, STRAWBERRIES, RASPBERRIES, BLACKBERRIES, &c.

RHUBARB, ASPARAGUS, &c.

IN THE ORNAMENTAL DEPARTMENT

Intended to be found all the DECIDUOUS ORNAMENTAL TREES, of the most desirable kinds; EVERGREENS of the best varieties; HARDY ORNAMENTAL SHRUBS, ROSES, &c. HEDGE PLANTS of all kinds, including

The American Arbor Vitae,

in which forms, in a short time, and with very great certainty, one of the MOST BEAUTIFUL SCREENS. A large supply of fine plants, low.

STOCKS FOR NURSERYMEN,

in cheap as well as articles, including very fine Angers and Fontenay stocks.

For a specialty, the subscribers would call particular attention to our stock of

The Hooker Strawberry,

to which they are anxious to disseminate and introduce wherever this strawberry is appreciated, convinced as they are of its intrinsic excellence.

At the last Annual Meeting of the Genesee Valley Horticultural Society, this variety received twelve votes (being the whole number cast) as a variety best adapted for general cultivation, while no other variety had more than seven votes; and it has repeatedly received like flattering testimonials.

Among strong points—EXQUISITE FLAVOR, GREAT BEAUTY OF SIZE, and PRODUCTIVENESS, combine to render it, no other Strawberry can claim to be, one in every respect to the wants of all cultivators.

The fruit is of a beautiful mahogany color even to the core, and is very vigorous and hardy, and the flowers perfect (a great merit).

Strong, healthy plants, true to name, at \$2 per 100, \$15 per 1000.

Catalogues furnished gratis.

Rochester, N. Y., March, 1859.

H. E. HOOKER & CO.

SAMUEL MOULSON,  
Of the Old Rochester Nurseries,  
AT ROCHESTER, N. Y.,

OFFERS for sale for spring of 1859, the usual assortment of Hardy Nursery Items, well grown and healthy, comprising

- APPLES, Standard and Dwarf.
- PEARS, do do
- CHERRIES, do do
- PLUMS, PEACHES, APRICOTS.
- GRAPES, Foreign and Native, including the most desirable of the new native sorts.
- BLACKBERRIES, in three varieties.
- STRAWBERRIES.
- GOOSEBERRIES, including a fine stock of the native variety Houghton's Seedling.
- CURRANTS.
- NUTS, in many varieties, including Dwarf European Walnuts, Prolific Chestnuts, Filberts, &c.

STOCKS FOR NURSERYMEN,

Of my own growing, (except the Pear,) as under, viz:

- 100,000 Quince Stocks;
- 40,000 Cherry;
- 150,000 Apple;
- 50,000 Pear.

A retail list of the prices and quantities of each item offered, as well as a wholesale trade list, will be forwarded to any applicant enclosing a stamp. March, 1859.—1t.

ROCHESTER AND LAKE AVENUE  
COMMERCIAL NURSERIES,  
ROCHESTER, N. Y.

THE Proprietors of the above old establishment offer for the Spring trade a large assortment of the following, at wholesale and retail at VERY REDUCED PRICES:

- APPLES, Standard and Dwarf.
- PEARS, do do
- CHERRIES, do do
- PLUMS, PEACHES, APRICOTS, NECTARINES, &c. &c.
- ROSES, ORNAMENTAL TREES, SHRUBS, and EVERGREENS.

HERBACEOUS PLANTS.—Among these will be found a very choice assortment of Paeonias, including twenty-five varieties of our own seedlings, unsurpassed by any European varieties.

GREEN-HOUSE and BEDDING-OUT PLANTS.—The latter will be found a very distinct and well-selected assortment.

DAHLIAS, &c.

MYATT'S VICTORIA Rhubarb and the true GIANT Asparagus, in large or small quantities.

Also, TOMATO PLANTS in pots or transplanted.

Persons ordering from a distance, may rely on having what they may order carefully packed.

March, 1859.—1t

J. DONNELLAN & CO.

FARMERS!

KNOWLEDGE IS POWER. LABOR COSTS MONEY.

Save your Money, make Machinery, and do your Work.

ONE MAN WITH MIND will do more work with HORSE and MACHINE, than TEN MEN by HAND LABOR, and do it better, increasing your crops fifty per cent, and save the price of the machine in two days' work.

- The latest labor-saving machines are
- Shares' Patent Covering and Hoing Machines,..... \$10
- do do Cultivating and Hilling Machines,..... 10
- do do Colter Harrow and Grain Covering Machines, 15

And they are second only to the plow. Where they are used, farmers will not be without them upon any consideration; and our advice to the farmers of this country is to buy these Machines as soon as possible. Where five or more club together and order these Machines, we will make a deduction of \$1 each on the Harrow and Grain Coverer, and 50 cents each on the other Machines. Send for a circular to PEASE & EGGLESTON,

Only Manufacturers, Albany, N. Y.

Responsible Agents wanted. March, 1859.—1t

GRAPES BY MAIL.—Diana, Rebecca, Northern Muscadine Concord, Hartford Prolific, King, Tokalon, Child's Superb, and forty-six other sorts of hardy native grape vines for sale.

Well-rooted plants can be prepared for planting, and sent by mail, carefully packed in oiled silk, and postage paid, on receipt of one dollar each. Delaware and Logan vines at three dollars each. Address C. P. BISSELL & SALTER.

Feb. 1, 1859.—4t.

Rochester, N. Y.

PERUVIAN GUANO.—No. 1 Peruvian Guano, Government brand and weight, direct from Peruvian agents, in quantities to suit purchasers, at the lowest market price.

March, 1859.—3t

A. LONGETT, 34 Cliff St, New York

**BUFFALO NURSERIES.**

[ESTABLISHED IN 1825.]

THE firm of Manley and Mason having been dissolved, and the Greenhouses and Grounds on Ferry street vacated, the business of these Nurseries will be continued at the old place on Utica street, where our Office, Greenhouses, and other buildings, have been erected.

Our Stock embraces nearly everything desirable, both in the Fruit and Ornamental Departments, but we would call particular attention to the

Standard Pear trees, 3 & 4 yrs;	Col. Wilder Raspberry;
Dwarf Cherry trees;	Catawissa
Plum trees (own stock);	Wilson's Albany Strawberry;
Harford Prolific Grape;	and other new varieties.
Concord	Roses and other Ornamental
Ebececa	Shrubs;
Delaware	Norway Spruce, 1 ft. to 8 ft.;
All other HOUSE AND HARDY	Balsam Fir, " "
GRAPES, in usual variety;	Scotch Pine, " "
Lawson Blackberry;	Austrian Pine;
Deecheater	American Arbor Vitae;
Drunkle's Orange Raspberry;	Hemlock for Hedges.

Office and Grounds on Utica street, Buffalo, N. Y.  
 March, 1859.—2t Address D. S. MANLEY.

**American Weeds and Useful Plants:**

OR  
**AGRICULTURAL BOTANY,**

By W. DARLINGTON, M. D., West Chester, Pa.  
 With additions by Geo. Thurber, New York,

A History and Description of all Plants injurious or important to the American Farmer and Gardener; with nearly

THREE HUNDRED ILLUSTRATIONS.

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Which now infest our farms have, with few exceptions, been introduced from abroad; and being at first unnoticed, have spread from farm to farm, until

IT NOW COSTS THE FARMERS OF AMERICA  
 MILLIONS OF DOLLARS

Every year for the destruction of these foreigners, or in the injury done to their crops.

Every Farmer should guard his Grounds from the  
 FIRST APPROACH OF HIS ENEMIES.

As a class-book for Agricultural Schools and Colleges, and a Hand-book for the Farmer, and for all public and private Libraries, this book is the most valuable addition yet made to our already large list of Agricultural Books.

Price ..... \$1.50.

Sent by mail, postage paid, on receipt of price.

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March, 1859.—2t

**ELLIOTT'S**

**WESTERN FRUIT BOOK.**

A NEW EDITION OF THIS WORK,  
 THOROUGHLY REVISED.

Embracing all the new and valuable Fruits, with the latest improvements in their cultivation, up to January, 1859, especially adapted to the wants of

**WESTERN FRUIT GROWERS.**

FULL OF EXCELLENT ILLUSTRATIONS.

BY  
 F. R. ELLIOTT, Pomologist,  
 Late of Cleveland, Ohio, now of St. Louis, Missouri.

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 No. 308 Broadway, New York.

March, 1859.—2t

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Now Ready.

SENT POST-PAID ON RECEIPT OF THE PRICE.  
 NEW ILLUSTRATED

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These volumes are devoted to a popular exposition of the most important branches of Rural Economy and Rural Art; thus promoting public taste, enhancing domestic comfort, and diminishing the expenses and increasing the profits of Rural Life and Industry. They are adapted to all sections—Southern as well as Northern interests being faithfully represented therein. The series comprises

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A Pocket Manual of Rural Architecture; or, How to build House Barns, and other Out-Buildings, with many Original Designs.  
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Bound in one large, handsome, gilt volume, may be had for \$1. It forms of itself a COMPLETE LIBRARY OF RURAL AFFAIRS, and should have a place on the book-shelf of every resident of the country. Sent prepaid by FIRST MAIL. Address

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This elegant work on PRACTICAL LANDSCAPE GARDENING, comprises A. J. DOWNING'S great work, and new and valuable Treatise by

**HENRY WINTHROP SARGENT,**

Giving the progress of Rural Art in the United States to the present time; descriptions of AMERICAN PLACES,

**PRIVATE RESIDENCES,**

CENTRAL PARK, N. Y., LLEWELLYN PARK, N. J.,

With a full account of the newer

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Presenting also, in a tabular view, the experience of cultivators in different parts of the Union, with the hardy and half-hardy Evergreens.

The Illustrations consist of

SEVEN SUPERB STEEL PLATE ENGRAVINGS,

Besides numerous engravings, on wood and stone, of the best AMERICAN RESIDENCES AND PARKS,

With portraits of many new or remarkable Trees and Shrubs.

Price ..... \$3.50.

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A. O. MOORE & CO.,  
 Agricultural Book Publishers,  
 140 Fulton street, New York.

March, 1859.—2t

**SPRING GARDEN SEEDS.**

J. M. THORBURN & CO.,  
15 JOHN STREET, NEW YORK,

I HAVE now in store their entirely new stock of SEEDS, comprising VEGETABLE, FIELD, HERB, FLOWER and TREE SEEDS, warranted fresh and true to name. The superior quality of the following we particularly recommend, all of which are required early:

ROAD WINDSOR BRANS, per quart,	cts.	20
EXTRA EARLY AND BLOOD TURNIP BEET, each, per oz.,	10	40
TRIPLE AND WHITE CAPE BROCCOLI, " "	40	20
EARLY WINNINGSTADT AND OXBREAST CABBAGE, each, per oz.,	20	25
EARLY AND GIANT WHITE SOLID CELERY,	25	50
SIZE-FIGURE AND OTHER FRAME CUCUMBERS, per pkt.,	50	20
PROVED NEW YORK PERLE EGG PLANT, per oz.,	20	20
EARLY WHITE VIENNA KOHLRABI, " "	20	10
EARLY CURED SILEZIA LETTUCE, " "	10	30
EXTRA CURED PARSLEY, " "	30	20
EXTRA EARLY DANIEL O'ROURKE PEAS, per quart,	20	30
" " SANGSTER'S No. 1 " " "	30	70
" " BURLINGTON " " "	30	25
" " TOM THUMB " " "	25	90
ARBKARD'S CHAMPION OF ENGLAND " " "	90	75
WOLFEN AND EUGENIE " each, " "	75	40
OSG CATWENNE AND SUGAR PEPPER, " per oz.,	40	50
EARLY SCARLET TURNIP AND FRAME RADISH, each, per oz.,	10	50
ROUND SPINACH, per lb.,	50	25
EARLY RED, SMOOTH, AND MAMMOTH TOMATO, each, per oz.,	25	100
ORWAY SPRUCE AND EUROPEAN SILVER FIR, " per lb.,	100	25
SEEDS OF CYPRUS SEED, per quart,	30	25
RED CEDAR, " " "	25	800
JACK AUSTRIAN AND PITCH PINE, each, per lb.,	800	150
NOTCH FIR, " " "	150	800
CHINESE ARBOR VITAE, " " "	800	75
YELLOW AND HONEY LOCUST, " " "	75	150
AGE ORANGE, per quart,	150	200
KENTUCKY COFFEE TREE, per quart,	200	75
ARGILLA LUTEA (a very rare tree), per oz.,	75	250
APPLE SEED, per bushel, \$9: per quart,	250	25
BAR AND QUINCE SEED, each, per lb.,	25	90
BIRCH SEED, per quart,	90	75
BURNING SEED, per lb.,	75	50
BEST WHITE CLOVER, per lb.,	50	300
BUNCH MIXED LAWN GRASS (extra), per bushel,	300	300
BIENNIAL RYE " " "	300	150
BUCKWHEAT " " "	150	175
KENTUCKY BLUE " " "	175	
EARLY POTATOES, six varieties, from \$1.50 to \$2.50 per bushel.		
OSGODORA BATATAS, or Chinese Potatoes, fine roots, \$1.25 per doz.		

The following CATALOGUES will be sent to all desiring them, enclosing for each or any one of them a one cent stamp:  
 CATALOGUE OF FLOWER SEEDS.  
 CATALOGUE OF VEGETABLE AND AGRICULTURAL SEEDS.  
 CATALOGUE OF TREE AND SHRUB SEEDS.  
 Also, Trade Lists of the above, for Seed Merchants.  
 J. M. THORBURN & CO.,  
 Growers and Importers of Seeds.  
 Feb. 1, 1859.—2t. 15 John St., New York.

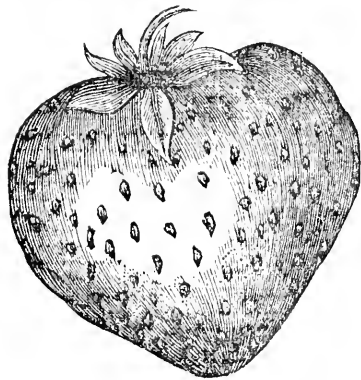
**"EVERY BODY SHOULD HAVE A COPY."**

THE  
**Rural Annual and Horticultural Directory**  
FOR 1859.

THIS work was started in 1856, by the publisher of the *Genesee Farmer*. Its great success affords conclusive evidence, not only of its intrinsic merit, but of its adaptability to the wants of the rural population. A new volume, prepared with great care and replete with new and valuable matter, is issued each year. The fourth volume, for 1859, has appeared, and is a book which cannot be too highly recommended—alike beautiful, interesting, and useful. The articles are all written for its pages by men of experience. It is illustrated with seventy-five appropriate and beautiful engravings.

Among its contents may be mentioned able treatises on Under-draining Orchards and Gardens, on the Fruits of the Ohio Valley, on Fruit Culture in the West, on the Cultivation of Fruit Trees in Pots under Glass, on Training Wall and Espalier Trees, on the Cultivation of Bulbous Plants, on the Management of Ducks, Geese, and Swans, on British Breeds of Cattle, on the Cultivation of Ruta Bagas, &c., &c., and a List of Fruits recommended by the American Pomological Society at its last session.

The work will be found invaluable to the Fruit Grower, and useful to every one interested in Rural affairs. It is furnished at the low price of Twenty-five Cents,—while it contains as much matter as many dollar books. *Every one who owns a rod of ground should have it.* It is sent pre-paid by mail to any address on the receipt of twenty-five cents in coin or postage stamps. Address JOSEPH HARRIS, Publisher and Proprietor of the *Genesee Farmer and Rural Annual*, Rochester, N. Y. The back numbers, for 1856, 1857, and 1858, can be furnished at twenty-five cents each, postage paid.



**THE HOOKER STRAWBERRY**

MAY be obtained pure, and in any desired quantity, from the grounds where it originated. It has only to be known to be appreciated. Its advantages are perfect hardiness, flowers perfect, and great productivity. Berry of the highest color and largest size, and, *best of all, most exquisite flavor.*  
 Price, \$2 per hundred, \$15 per thousand.  
 Order for spring planting, if only a few for trial, of  
 H. E. HOOKER & CO.,  
 Feb. 1, 1859.—3t Commercial Nurseries, Rochester, N. Y.

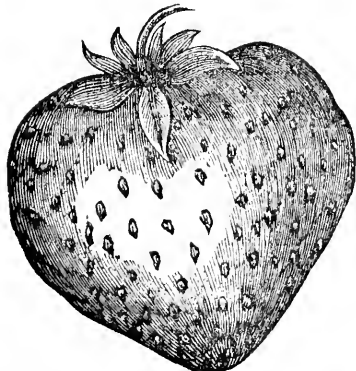
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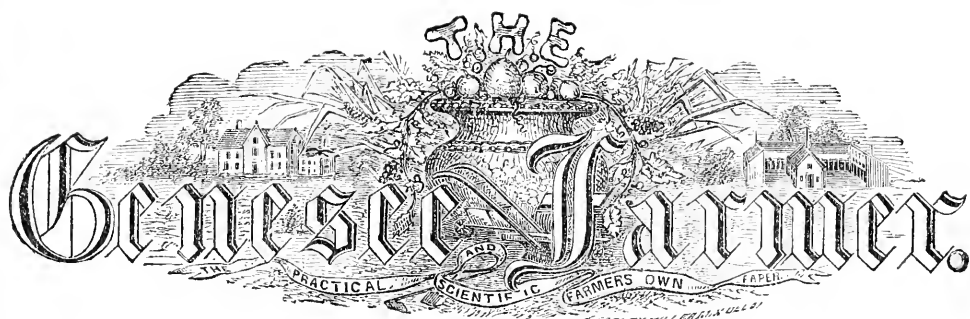
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THE  
Genesee Farmer  
PRACTICAL AND SCIENTIFIC FARMERS OWN PAPER

VOL. XX, SECOND SERIES.

ROCHESTER, N. Y., APRIL, 1859.

No. 4.

### HASTY HINTS ON SPRING WORK.

CLOVER SEED ON WINTER WHEAT may be sown any time this month. Frost does not hurt it, unless it has germinated. It may be sown on the snow. Indeed, some suppose there is an advantage in so doing—the snow, as it melts, washing the seed into the ground. Unless the soil and the weather are very dry, however, there is little danger that the seed will not germinate. The wheat plants afford sufficient shade and moisture.

Last year, the weather was remarkably warm early in the spring, followed by protracted rain and cold. Much of the clover seed sown early had started, and the young plants perished. To avoid such failure, some of our best farmers sow part of the seed say the first week in April, and again about the 20th. This is double labor of sowing, but it lessens the risk of failure; and when the second sowing is crosswise the first, it secures a more even distribution of the seed.

It is well to sow a bushel of plaster per acre, for the benefit of the young clover plants. Many good farmers in Western New York think it is better to sow the plaster on the wheat at the time of sowing the clover, than to sow it on the clover the next spring. Some, however, think the plaster has a tendency to retard the ripening of the wheat; and if this is the case, of course the practice can not be recommended, as the liability to injury from the midge is largely augmented by any delay in the ripening processes. Whether plaster really has this effect or not, we can not tell. In Mr. LAWES' experiments, alkaline salts in connection with ammonia had a tendency to increase the quantity of straw without an increase of grain; *i. e.*, alkalies and ammonia gave no more grain, *but more straw*, than the same quantity of ammonia without alkalies. It is not improbable that plaster might have the same effect.

Since the advent of the midge, and the decreased quantity of land sown to wheat, clover is sown more extensively with spring grains. Barley is

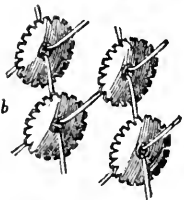
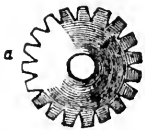
undoubtedly the best spring crop for this purpose. In England, nearly all the clover is sown with barley. The land is made as fine and mellow as possible, and the clover seed is generally sown after the barley has been harrowed in and the work completed, except rolling, which is done after the barley is up. If the land is at all cloddy, it is better to roll before the clover is sown. There is much more clover seed lost from burying it too deep than from not covering it at all. Several years ago, we recollect seeing the results of some careful experiments, made by Mr. STERLING, of Scotland, on sowing clover seed at different depths. More seeds germinated when covered very slightly (if we recollect aright, the eighth of an inch,) than at any greater depth—the decrease being in proportion to the depth. Those sown on the surface gave a less favorable result than those slightly covered, but better than any sown at a greater depth;—*i. e.*, those covered the eighth of an inch did best; those sown on the surface, nearly as well; those covered one-fourth of an inch, not quite so well as those on the surface; those covered half an inch, still worse; and so on, till at two inches they did not germinate at all.

As a general rule, clover does not succeed so well sown with oats as with barley, spring wheat, or rye, though we have known several instances where a good set of clover has been obtained when seeded with oats. With this crop, it would undoubtedly be safer to sow a little more seed.

For pasture, and when it is intended to plow up the land at the end of one or two years, we should sow nothing but clover. From four to six quarts, or from eight to twelve pounds, is the usual quantity in such cases. For mowing, six pounds of medium clover, and four and a half pounds of timothy seed, is the usual quantity, varying less or more according to the condition of the soil. We are in favor of thick seeding, and would much rather sow more than less. English farmers, as a rule, sow half as much again clover and grass seeds

per acre as we do, and a greater variety. They find their account in so doing. We have known experienced English farmers sow as much as 20 lbs. per acre of red clover, trefoil, and white Dutch, in addition to rye-grass. Our land is so well adapted to clover and grass, that such thick seeding is unnecessary here; but we are not sure if it would not sometimes be advantageous to sow more seed than we do.

There are few implements more needed on American farms than a light pair of harrows for covering small seeds. The roller answers the purpose to some extent; but if the soil is at all damp, and dry weather ensues, a hard crust forms on the surface, through which it is difficult for the seeds to penetrate. An implement which should combine the operation of roller and harrow, would be an improvement, for this purpose, upon either. The late Mr. SMITH, of Deanston, invented an implement which is designed to accomplish this result. It is called the *web-harrow*. It consists of an iron chain web, connected by discs or quoits of iron which, lying obliquely upon their sides when in operation, roll around, thus tearing and abrading



WEB-HARROW.

the surface of the ground, and grinding the smaller clods, so as to expose and disturb the surface sufficiently to cover the small seeds strewn upon it. The serrated form of the disc is shown at *a* in the accompanying figure, where the mode in which these discs bind the whole framework together is also exhibited at *b*. It is by the rubbing of the sides of the discs against the land, as they revolve, that they are especially useful, more than by the action of their edges, though that is also efficient to some extent. The price of this harrow in England is about \$25, covering 25 square feet of ground. The common brush-harrow—a framework of wood interlaced with brush—forms a good substitute for the expensive implement of Mr. SMITH. It merely scratches the surface, and so far gives the seeds a very shallow covering; but it wants the weight which makes the web-harrow to compress as well as abrade the surface, both of which conduce to its efficiency.

**BARLEY.**—Since the uncertainty of the wheat crop, the cultivation of barley is attracting more attention. Our short, dry, hot summers, are not

as well adapted for barley as for wheat. Our best samples of wheat are heavier, finer, drier, and



FIG. 1.

had been summer-fallowed for wheat, but which could not be got ready till too late to sow the wheat. It was sown to barley the next spring, and a magnificent crop was the result. As it is found that the wheat-midge attacks the barley, it is important to get it early; and the warmest land, other things being equal, will give the best result.

The common two-rowed barley (fig. 1) is one of the earliest and best varieties for medium soils. The *Chevalier* (fig. 2) is the most popular malting barley in Great Britain. It is heavier and thinner skinned than the common two-rowed barley, and, though it succeeds best on light soils, will do better than the former on clayey soil. The common four or six-rowed barley (fig. 3) is thought by some to yield better than the two-rowed; and though the sample is not quite as good, buyers make very little difference in the price. In England, on the other hand, where, on account of the

more farinaceous than the English; while our barley is decidedly inferior to that grown in the cool, long summers of the British Isles. Barley delights in a loose, warm, quick soil. Its roots spread but little—not half as far or deep as the roots of wheat. (See article on this subject in the last volume of the *Genessee Farmer*, page 270.) Hence the soil should be rich, and as loose as possible. It is probably owing to this fact that superphosphate of lime (which seems to develop the formation of roots) has a better effect on barley than on wheat. A clayey soil will produce good barley, if it can be made sufficiently light and porous. The best crop of barley we ever saw, was on a heavy clay soil that



FIG. 2.



heavy duty, it is desirable to get the very best samples for malting purposes, the two-rowed kinds are generally preferred. In Ireland, the six-rowed is sown as a winter crop.

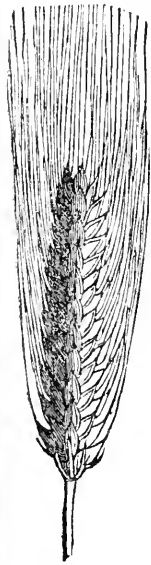


FIG. 3.

We must again express the belief that farmers are somewhat disposed to be too sparing of seed. We think two and a half bushels of barley per acre none too much when sown broadcast, or from two to two and a quarter when drilled. Of course, the earlier barley can be sown after the soil is in good working condition, the better.

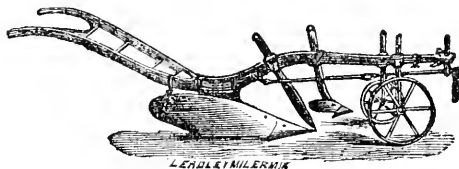
**OATS.**—This crop should be attended to as soon as the soil is in good working order. Good crops of oats are frequently obtained when sown late, but it is generally better to sow early—say immediately after you are through sowing barley. Oats do much better than barley either on heavy clays or on low, mucky land.

From one and a half bushels on the latter to two and a half bushels on the former soil is about the usual quantity of seed sown.

**PEAS.**—In this section, and in others where the pea-bug prevails, this crop is not considered profitable. We believe, however, that peas might be grown with advantage on all wheat farms, for the purpose of feeding hogs early in the fall, before the bug does them much injury. That such a practice would enrich the land, there can be no doubt. They do well on an inverted sod, and are adapted to nearly all soils; but a strong wheat soil, well pulverized, suits them best. For feeding to hogs, the earlier they can be sown, the better. Sown late—say the 10th of June—they sometimes escape the bug. Two bushels per acre are usually sown. One or two bushels of plaster per acre will usually prove useful on peas.

**SPRING WHEAT.**—This crop has not given much satisfaction in this section, on dry upland that is suited to the growth of winter wheat. On land too low for winter wheat, and sown quite late—say middle of May—good crops in some instances have been grown, the midge doing little damage. The *Fife* is one of the best varieties for such land. The *Canada Club* is among the best kinds on dry upland, and should be sown early. Some farmers think it is not well to plow land too deep for spring wheat, and good crops have been obtained by

merely cultivating it without plowing. We think spring wheat requires a more friable and finer-tilled soil than winter wheat. From one and a half to two bushels is the usual quantity of seed.



HOWARD'S PRIZE PLOW.

**PLOWING.**—A word on this important operation is all that our space will allow.

Land should never be worked when it is wet. Subsequent cultivation will never correct the injury done land by plowing it when it is wet. *We plow too wide.* Our springs are so short, that it is desirable to plow as much land in a day as possible. But still it is bad policy to flop over such wide furrows. One of the objects of plowing is to pulverize the soil. This can be better done with narrow furrows than with wide flat ones. The best Scotch and English farmers consider that the *depth* and *width* of the furrow should bear a constant proportion—that the furrow should be rectilinear—and that, when raised, the exposed surfaces should be of equal breadth on either side of the furrow. We annex a cut of what is undoubtedly the best, the lightest draft, and most efficient English plow. A furrow seven inches deep by ten inches wide, with a lap of three inches, leaves seven inches on each side the furrow, and forms an admirable seed-bed when harrowed down.

**HOW THICK SHALL WE SOW OATS?**—An experiment made on the State Farm at Westborough, Mass., to determine the best quantity of oats to sow per acre, resulted as follows: Two bushels of seed per acre gave 26½ bushels; three bushels, 40 bushels per acre; four bushels, 35½; and five bushels, 42 bushels per acre. Before the general introduction of underdraining, and other improved methods of cultivation, five bushels of oats per acre was the usual quantity sown in England. Now, three to four bushels are sown. In this section, two bushels are considered sufficient; and in the Western States, one and a half bushels. Probably we sow too little.

**CUTTING POTATOES—ONE EYE IN A SET.**—A correspondent of the *Country Gentleman*, records his testimony in favor of cutting potatoes in very small pieces, with one eye to each piece, for planting. He has tried it on a small scale with success. I have tried the same experiment with a favorable result.—JOHN BRADFIELD, *Rochester*

## CROPS WHICH ENRICH THE SOIL.

ONE of the great needs of American agriculture is the introduction and extensive cultivation of such plants as enrich rather than impoverish the soil. So far as ascertained, the leguminous plants—such as peas, beans, and clover—belong to this class. So also do turnips and probably other cruciferous plants, when not raised for seed. On the other hand, the ceralia—including wheat, barley, oats, rye, maize, sugar cane, and the grasses proper, such as timothy, red-top, rye-grass, ect.,—impoverish the soil. They all have starchy seeds and glassy stems. They take from the soil, from rains, dews, and the atmosphere, more ammonia than they contain when grown. On the other hand, the leguminous plants, turnips, etc., retain the ammonia; and when the plants are plowed in, or consumed on the land by animals, they increase the supply of ammonia in the soil.

All crops grown for feeding animals on a wheat farm, or for plowing under as a manure, should belong to the latter class, as much as possible. The time is come, in this section and in the older States, when the great aim of the farmer must be to enrich the soil. In determining which crop to raise for the purpose of feeding on the farm, we must not merely ask the simple question what crop will afford the most nutritious matter, but which will be ultimately the most profitable, taking into consideration its effect on the soil, the amount of nutritious food, and the value of the manure made by its consumption on the farm.

Where the object is to enrich the farm, it is a great waste of vegetable force to grow barley, oats, rye, corn, and the grasses, for the purpose of feeding animals on the farm. We should rather grow plants of a lower organization—plants which require less of that kind of food best suited to the growth of plants used as food for man. All will admit that to grow wheat to be fed to animals, for the purpose of enriching the soil as the primary object, would be a wasteful practice; and we believe the growth of the plants named, for this object, is wasteful also, though perhaps in a less degree.

If we can direct the attention of farmers to this subject, we believe many useful plants will soon be introduced which are now little known or cultivated in this country. For this purpose we have procured engravings of some of the most useful plants which experience indicates as belonging to that class of crops which enrich the soil.

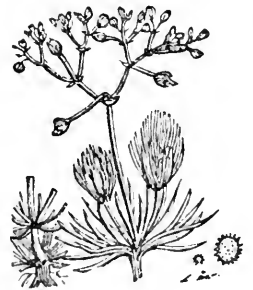
**WHITE LUPINE.**—This plant has been used in Southern Europe for plowing in as a manure, since

the days of COLUMELLA. We have frequently alluded to it as preëminently worthy of trial on the poor sandy soils of the Atlantic slope, especially where the climate is mild. It derives its name from *lupus*, a wolf, in allusion to its voracious qualities. It strikes its tap-roots deep in the soil, and it will flourish where many other plants would starve. It is of very rapid growth, produces a large amount of vegetable matter, and draws from the subsoil a large quantity of alkalis. It is rarely or never injured by drouth or insects, and is admirably adapted for enriching unfruitful sandy soils; while its strong stems and roots open and ameliorate, as well as enrich, heavy tenaceous clays. M. VILMORIN, of Paris, says it is sown in that vicinity about the middle of April, after all danger from frost is past. He says "the green manure yielded by this plant is excellent. The seeds, soaked in water, form a good cattle food, and the young plant is readily eaten by sheep." White lupins are now quoted in the large seedsmen's lists of England and France, and we hope they will be introduced into this country.



WHITE LUPINE.

**SPURRY** (*Spergula arvensis*).—No plant has been more lauded for enriching sandy soils than spurry. VOX VOGT states that by its use the "worst shifting sands may be made to yield remunerative crops of rye—the green manuring every other year not only nourishes sufficiently the alternate crops of rye, but gradually enriches the soil—and that it increases the effect of any other manure that may subsequently be put on." He adds, also, that "spurry produces often as much improvement if eaten off by cattle as if plowed in; and that, when fed upon this plant, either green or in the state of hay, cows not only give more milk, but of a richer quality." The best seed comes from Riga. It can be sown any time during the spring or summer.



SPURRY.

It is often sown after wheat or potatoes, and plowed in the following spring. It is sown broadcast at the rate of 15 lbs. per acre. It grows with great rapidity, and two or three crops may be obtained in a season. Spurry and the white lupine are both annuals.

**BIRD'S-FOOT TREFOIL** (*Lotus corniculatus*) is a prostrate perennial, common on open grassy pastures and dry places. It is a leguminous plant,



BIRD'S-FOOT TREFOIL.

equally nutritious as clover, and is instantly eaten down whenever cattle have access to it. It is one of the commonly-cultivated "artificial grasses" of England, and is always recommended as worthy a place in all mixtures for permanent pastures, and especially for lawns, orchards, and shady places.



MEDICAGO LUPULINA.

**MEDICAGO LUPULINA** is another leguminous plant, a fibrous-rooted perennial, very common in dry pastures, especially if of good loamy quality, where it forms, with other plants, a thick sward. The pods are short, black, twisted, and arrayed in oblong heads, as shown in the annexed engraving. It is not equal in nutritious qualities, perhaps, to

red clover, but is valuable on dry, poor soils, where, however, it is apt to run out in a few years.

**LUCERNE** (*Medicago sativa*).—This is a well-known plant, which has been more or less cultivated in this country for many years. It requires very rich land, and deep and thorough cultivation. It should be planted in rows, and hand-hoed or forked between, several times during the first and second years. It does not attain its maximum productiveness till the third year. On these accounts, it is not likely to be very generally introduced into a country where land is cheap and labor dear. In the neighborhood of large cities, however, it is a useful crop, especially for feeding to milch cows in summer. It can be cut three times a year, yielding a good crop each time, if the soil is sufficiently rich.



LUCERNE.

**VETCH** OR **TARE** (*Vicia sativa*).—In England this is an exceedingly valuable plant, especially on heavy soils. It can be sown in the fall or in the spring—the latter generally yielding the heaviest crop, though the former is the earliest. Vetches are principally used as a green food for horses. An acre of good vetches, fed in the yard or stable, will keep more horses than six acres of the best pasturage. They succeed best in a wet season, and on this account are not likely to do well in this country, though we have seen them in Canada, and have been informed that they succeed well and are very useful. A good "smothering" crop of vetches, cut before they go to seed, are nearly as good to precede wheat as a summer-fallow. *Morton's Cyclopaedia of Agriculture* says: "Sheep fatten faster upon this (green vetches) than on any other herbage, which occasions its constant use by ram-breeders. Horses improve more rapidly upon it than on clover or grasses. Horned cattle thrive surprisingly upon



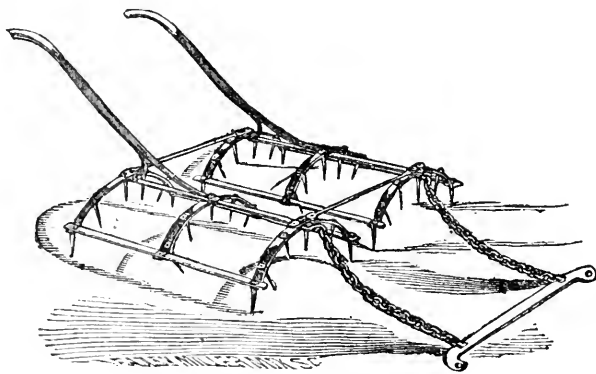
VETCH.

this fodder. Cows yield more butter from the tare than from any other provender; and pigs voraciously consume and prosper on it without farinaeous food." We can endorse this opinion from our own experience.

Mr. LAWES' experiments on vetches, extending over many years, prove that, like peas and beans and clover, vetches are an enriching rather than an impoverishing crop.

### HARROWING POTATOES.

IF potatoes are harrowed just before the shoots are coming through the ground, the after labor of hoeing is greatly reduced. The harrowing also breaks the crust of the soil, and the shoot can penetrate through the ground more readily. It has also another advantage: it removes a portion of the soil from above the plant, and thus the plant receives, during the first stages of its growth, when the soil is cold, the more direct influence of the sun. We present an engraving of a harrow used in England for this purpose. It is made in two parts, each being convex, and about two feet wide, connected by a bar across them, which admits of their



POTATO HARROW.

separation to a greater or smaller distance, so as to fit the width of drill; and it is drawn by one horse, which walks between the drills on which it operates.

**WASHING HORSES' LEGS.**—Sir GEORGE SEEPHENS says: "Whenever it is necessary to wash horses' legs, do it in the morning. To deluge the legs with water the moment the horse enters the yard, heated with exercise, is, to my mind, as unnatural and absurd as to jump into a shower-bath after playing for an hour at cricket. My plan is a rubbing down with straw and dry brush, and the next morning wash as clean as soap and water can make them. Pick and wash the soles as soon as the horse comes in."

### UNRIPE CORN FOR SEED.

IN the April number of the *Genesee Farmer* for last year, we alluded to the fact that the eyes from the extremity of the potato start earlier, and are said to produce earlier crops, than those from the root end. At all events, potato-growers for market, in some parts of England, have for many years adopted a practice based on this idea. They cut the potato into sets as shown in the annexed engraving. The sets nearest the extremity of the potato (*a*) produce the earliest crop, and are planted by themselves, in warm places, for this purpose. The sets at the root end (*d*) are planted for a late crop, and those in the middle of the potato (*b*, *c*) are planted for an intermediate crop. The root end is usually thrown aside for the pigs.



We rather hesitatingly gave the following explanation of the fact at the time:

"It has been supposed that the reason why the eyes from the point of the potato are more easily excited into growth, is owing to their being more perfectly matured; but this is impossible, as they are the youngest eyes. It seems to us more likely that the cause lies in the fact that the extremity of the potato is not so ripe as the root end—that, in other words, they are not so perfectly organized, and are consequently less able to resist the decomposing influences of light, air, and moisture. 'That which thou sowest is not quickened unless it die.' The organized matter of a plant must be decomposed (or die) before it can reproduce itself. The youngest eyes, being less perfectly organized, would decay soonest and grow earlier and with greater vigor."

We recur again to the subject in order to adduce a very important fact (if it be a fact) confirming this view. In the *Transactions of the La Moille Farmers' Club*, published in the *Prairie Farmer*, President McKEY said "that corn gathered before fully ripened, and hung up to dry in the house, germinated sooner, and was more forward through the season, than if left to ripen in the field."

**WHEEL vs. SWING PLOWS.**—A Scottish correspondent of the *London Agricultural Gazette* concludes, from a number of trials with the dynamometer on plows with and without wheels, that the wheel plows are of *one-third lighter draught than the swing plows.*

EXPERIMENT WITH POTATOES.

THE *New York Observer* publishes the results of some experiments on potatoes by O. S. CUMINGS, Esq., of Springdale Farm, near Trenton Falls, N. Y. With the *Observer*, we regret that the experiments were on too small a scale, but the results are nevertheless interesting and worthy of record. They agree in the main with our own experiments. (See *Genesee Farmer* for April, 1858.)

Each experiment consisted of seven hills. Soil a gravelly loam, which had received a light dressing of rotten manure before plowing. Seed, one large whole potato in each hill. Planted June 5, 1858. Variety, *Rough Purple Chili*. The result was as follows:

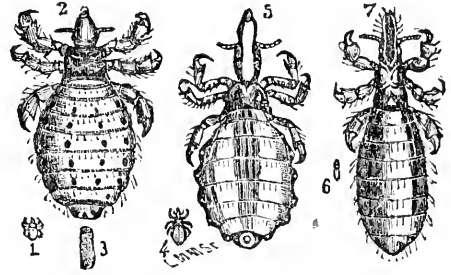
Description of Manure.	No. potatoes produced.	Weight of produce.	Remarks.
No manure .....	27	7 3 lbs. oz.	1 rotten.
One table-spoonful of guano, under hill,.....	70	16	Sound.
Two table-spoonfuls bonedust on the potato in hill,.....	68	13	Sound.
One table-spoonful sulphate of ammonia in hill,.....	56	15	2 rotten.
A large handful of salt, lime, and ashes, in hill,.....	39	8 4	Sound.
Two table-spoonfuls of superphosphate of lime on potato in hill,.....	52	12	3 rotten.
A handful of hen-manure and muck (one part manure to two of muck) on potato in hill,.....	70	13 8	Sound.

Mr. CUMINGS also made some experiments on the same soil, with large and small potatoes as seed, cut and uncut. They were on the same space of land (seven hills). The following are the results:

Small potatoes, one in each hill,.....	87 potatoes—	4 lbs. 3 oz.;	sound.
Large potatoes, one in each hill,.....	53	12 " 12 "	" "
Small potatoes, cut in two, two pieces in each hill,.....	44	7 " 8 "	" "
Large potatoes, cut in two, two pieces in each hill,.....	111	15 " 8 "	1 rotten.

PACAS IN AUSTRALIA. — CHARLES LEDGER, an English merchant who has been engaged in the Alpaca wool business for some years in Peru, has succeeded in importing 280 alpacas into Australia. The *Australian Gazette* says:

"The animals, at the departure of the mail, were quietly grazing near the city (Sydney), apparently well contented with the change of climate and scene which they have experienced."



LICE ON CATTLE, SWINE, AND CALVES.

THE true ox-lice, (*Haematopinus eurysternus*), fig. 1—2 the same magnified—is flat, and of a chestnut color, with an oval head, a dirty white body, with two rows of spots down the back. It has two short horns and six stout legs; the shanks toothed, the claws strong, tipped with black.—(3, one of the eggs or nits magnified.)

The swine-lice (*H. suis*), fig. 4—5, magnified—is of a rust color; the head is very long, the trunk broader; body dirty white. The eggs are oblong, of a yellowish-white, and sha-greened.

The calves' louse (*H. vituli*), fig. 6—7, magnified—is a narrower species; of a chestnut color, excepting the body, which is dirty white, with two rows of oblong spots; the head is oval, but elongated, with short horns.

We have repeatedly published methods of destroying these troublesome parasites; but if the animals are kept clean and well fed, they will seldom be troubled.

HUNGARIAN GRASS. — This grass has attracted a large share of attention at the West, where it has supplied, to a great extent, the place of timothy grass, which it is difficult to grow on account of its winter-killing. It is nearly or quite identical with the common millet, *Setaria Germanica*, growing perhaps not quite as large-stawed and a trifle smaller seed, or about the same as millet on rather poor soil, sowed quite thick. That it is valuable as a forage plant, all know who have ever grown the millet to any extent; and to the farmers at the West it has been a great boon, from its quick and luxuriant growth. It is an annual, thriving best on warm, rich, sandy soil, and may safely be calculated to yield from two to three tons of cured hay which horses or cattle prefer to the best timothy. To be obtained in the best form for hay, it should be cut as soon as the seeds on the tops of the stalks begin to turn, and before the bulk of them are ripe. We commend it, either as Hungarian grass or millet, to the attention of farmers, not for making their fortunes, but as an excellent auxiliary as food for farm stock. This is the testimony of farmers in Monroe county, N. Y., who have grown it, and have no seed to sell, either as millet, Hungarian grass, or "Honey Blade grass."

## THE BEST DOCTOR FOR ANIMALS.

"We have seen a great deal of doctoring for sick animals,—some successful, and a great deal of it unsuccessful,—and we have long since come to the conclusion that the most skillful physician we have ever met with is Doctor Nurse. If an animal, (as well as human being,) is not carefully taken care of,—nursed,—all the medicine in the world can do but little good. And, on the other hand, *with* good nursing, medicine is generally unnecessary.—Our own observations lead to the opinion that in at least nine cases out of ten, as commonly administered, medicine does more harm than good.

An eminent New York Physician said that taking medicine was always a choice of evils—that being poisons in nearly all instances, they necessarily did harm to the system, and were never to be employed unless there was a strong probability that they would benefit more than injure. This is not the rule adopted in doctoring horses, by most horse-jockies, and others having care of these animals, if we might judge from the way in which gunpowder, salts, red pepper, turpentine, whiskey, corrosive sublimate, and other violent remedies, are administered at hap-hazard, increasing in nearly all cases the violence of the disease. It may be laid down as a general rule, that it is much safer to give too little than too much medicine; and that none should be given unless we know distinctly how it is to operate, and what it is for.

Some years ago, a valuable horse caught cold, and was troubled with a cough so severe that he might be heard half a mile, and which appeared to be rapidly reducing his flesh. We had an abundance of prescriptions from neighbors of all kinds of frightful medicines, enough to have killed him had he been in perfect state of health. We concluded to discard all, and to place him under the attention of Dr. Nurse. Great care was taken never to work him to perspiration—he was blanketed whenever the weather was chilly—he was fed regularly and moderately on *succulent* food, all such food partaking of the character of expectorants, and favoring a free discharge from the lungs—and all his other wants were observed as well as we were able to, and promptly supplied. In six weeks he was perfectly well. Had some nostrum been employed, it might have injured him and prevented recovery; or if it had not, Dr. Nurse might not have been called in; but if he had, and the medicine had not greatly retarded his recovery, and he had got well in six months, it would unquestionably have been regarded as an extraordinary cure. At another time, a valuable mare, eleven years old, was badly sweened by hard work—the worst case of sweeney we ever met with. It was generally regarded as a hopeless case—but various remedies were proposed and offered, costing from \$20 down to \$3. We concluded that our friend Dr. Nurse should be again called to the exclusion of all these fellows, and the consequence is that with simple careful moderate treatment, the animal is well and the sweeney filled up.

The majority of sick horses get well; every owner tries some remedy; and that particular medicine that he happened to be using at the time, gets all the credit—although, as a general thing, it retarded more or less his recovery.

We must make one exception in the general re-

jection of medicines—there is one, which if given moderately, can scarcely ever injure, and may do much good. This is *powdered charcoal*—a powerful antiseptic, and absorbent of bad matter, while, unlike most other medicines, it does not irritate—a most important advantage. A clear illustration of this advantage recently occurred in the case of a fine calf five months old, which had become bloated by eating too many apples, blown down by a violent gale. Its sides became extended by wind to an almost incredible size; a solution of saleratus was poured down its throat repeatedly, and as often thrown out violently on account of its irritating action on the throat of the young animal. It continued for eighteen hours with little or no improvement, when a large tablespoonful of powdered charcoal mixed with half a pint of water was given. The dose was swallowed without any difficulty, and in four hours the calf appeared to be perfectly well. Charcoal may be given in nearly all cases of derangement of the digestion, whether with men or beasts, with great advantage. One-half to a teaspoonful is a full dose for a man, and as much for an animal as his food exceeds that of a man.

We do not mean to say that there are not other medicines that do not occasionally prove eminently useful; but unless they can be given understandingly,—with a full comprehension of their mode of action, and with an undoubted knowledge of the exact nature of the disease,—and their use sanctioned by very clear and distinct previous success,—it would be much safer to discard them. — *Country Gentleman.*

## BREEDS OF CATTLE IN ENGLAND.

From statistics published in the last *Journal* of the *Royal Agricultural Society*, we learn that the cattle exhibited at the Metropolitan Market, in London, consisted of the following breeds:

Shorthorns.....	33.00	per cent
Herefords.....	9.25	"
Devons.....	5.00	"
Loughorns.....	1.00	"
Crosses.....	16.00	"
Highlanders.....	2.00	"
Polled Scots.....	4.00	"
Ayrshire.....	0.25	"
Irish Crosses.....	8.00	"
Welsh runts.....	1.50	"
Irish.....	9.00	"
Bremen, Toning, Dutch and German.....	9.50	"
Spanish and Portugese.....	1.50	"
	100.00	"

"The above table shows that the Shorthorned breed of beasts now stands at the head of the list of stock, for what may be termed general consumption. They have gone on progressing at a wonderful rate since the commencement of the present century, and they are now to be found in almost every county in England, as well as in Ireland and Scotland. We may further observe that half-bred beasts, between the Scots and Short-horns, have considerably increased within the last twenty years. The changes in the various breeds in this period have been remarkable. Whilst the Short-horns and crosses have increased, the Herefords, Devons, Loughorns, and polled beasts have declined considerably. The same may be said of Welsh runts; but we find a great increase in Irish crosses, no doubt with the short-horned breed imported from this country."

## JANUARY NUMBER OF THE GENESEE FARMER.

**MESSRS. EDITORS.**—I send a few ideas suggested on reading the January number of the *Genesee Farmer*. Make what disposition you please of them; it will not be material with me.

**MAKING ROADS.**—Where stone is not easy to be procured, brush is excellent to put into muddy roads. Place it thick across the road, and cover with dirt. It forms a drain for the water, prevents the wheels from going down any farther than the brush, and when covered a foot with dirt will last many years.

**KEEPING TURNIPS.**—A correspondent in the *Prairie Farmer* says: "Put them into a barrel and cover with a sod."

**RAISING PUMPKINS.**—Your correspondent must allow me to differ with him on the propriety of raising corn and pumpkins. Corn likes hot weather, as is demonstrated by their raising larger crops in the Middle than in the Northern States. The pumpkin vines shade the ground, and thereby retard the growth, as well as absorbing the nourishment that the corn would otherwise get. They are in the way in working the corn. I believe more than the value of the pumpkins is subtracted from the value of the corn crop. In this State, we raise them in great perfection on the prairie sod the first season after breaking. An acre of land cultivated entirely in pumpkins will yield an immense quantity; and I think this method preferable to planting among corn.

The crop is a valuable one—have made excellent beef with no other feed but pumpkins and hay. The pumpkins should be cut up and fed in a clean trough. Had two hogs, one of which I intended to fatten, and the other to keep through the winter. As soon as pumpkins were ripe enough to gather, I shut them apart. Fed one on corn all he could eat, with an occasional pumpkin for sauce, slops of the house, milk, &c. The other I fed entirely on pumpkins. I should have said at the commencement that they were both of an age, and size very nearly alike. In December I killed the one fed on corn, which weighed about 300 lbs; the other was as heavy, but not quite so fat. I then concluded to fat the last one, and fed him on corn and pumpkins all he would eat. In about a month he was very fat, and weighed nearly a hundred more than the first. This experiment convinced me that pumpkins were good feed for hogs, and that corn and pumpkins fed together were much better than corn alone.

**THE BEST MODE OF RAISING TOBACCO PLANTS.**—Let them alone. I have used the weed twenty years with great injury to both body and mind.—Shall use it no more, except to kill insects.

**MANAGEMENT OF BEES.**—The main cause of the loss of bees during the winter, is lack of ventilation in the top of the hives. They will endure any amount of cold, if kept dry.

**FARM BOOK.**—The satisfaction derived therefrom more than pays for the trouble.

**SHOULD THE SUCKERS BE REMOVED FROM CORN?**—Our corn does not sucker. The most economical way to harvest corn is to husk it on the hill. Drive the wagon astride the middle of five rows, husk and throw into the wagon-box. It saves all the labor of handling the stalks, and the

time during fall or winter, and they will feed the stalks down much closer than when fed in the yard, as is the ordinary practice.

**LIMA BEANS.**—I raise these beans with good success without poles. Let them grow as they will. Plant on the poorest soil we have on the prairies, without manure. S. W. ARNOLD.

*Courtland, De Kalb Co., Ill., 2d Mo., 1859.*

## QUARTERLY MEMORANDA FROM "DOWN EAST."

**EDS. FARMER:**—To-day ushers in the month of March, 1859; and a beginning it is, with a vengeance—mercury down to zero, and the wind blowing a "regular norther," causing the snow to act very uncomfortable and restless. We feel to exclaim with the poet:

"The stormy March has come at last,  
With winds, and clouds, and changing skies,"

etc., but then we comfort ourselves with the old saying, that if March

"Comes in like a Lion,  
'Twill go out like a Lamb."

We have experienced a cold winter, the thermometer at one time marking 28° below zero.—Sledding commenced the middle of November, and continued almost without interruption to the present, when we have two feet of snow.

The grass fields have had a good covering all winter, and can not fail to produce early feed if it continues this month—a "consummation devoutly to be wished," as five or six months feeding stock makes clean bays and scaffolds.

We consumed a greater quantity of hay this winter than in former years, owing to the increased amount of stock kept. This State exports annually considerable quantities of hay, but the farmers are beginning to understand that their land, although naturally strong, can not bear continual cropping without an adequate return, and, as a natural consequence, more attention is paid to stock raising and the dairy, whereby the land receives an equivalent for the stock taken from it. Apropos of *strong* land, it is told of a person who was looking over the lands of a farmer, (which land, by the way, was rather strong,) who was praising it by alluding to the cropping it would bear without manuring, winding up with the exclamation, "It is strong land—*very strong* land." "No doubt of it, no doubt of it," said the examiner. "It *must* be strong land to bear up such a confounded load of rocks."

Jack Frost laid an embargo on our harbors part of the winter. Some of them are free from ice at present.

The following is the market price of some products here at present:—Apples, fresh, \$1.00 per bushel; do. dry, 8 and 10 cents per pound; Butter, 20 cents per pound; Barley, \$1.00 per bushel; Corn, \$1.00 per bushel; Hay, pressed, \$10 and \$12 per ton; do. loose, \$15 per ton; Oats, 43 and 45 cents per bushel; Potatoes, 42 and 50 cents; Wheat, none in the market. GEO. E. BRACKETT.

*Belfast, Me., March 1, 1859.*

**GAPES IN CHICKENS.**—Make a pill of equal parts soap, rhubarb, and assafoetida, and give once an



## IMPROVING OUR HIGHWAYS.

THE article on roads in the January number I like much. Years ago we tried small stones, putting those on top that would break easiest to the size and shape of a goose egg, taking special pains where the wheels run, but it was too rough. They would not pound as well as lime stone. We find we can gravel eight inches deep and draw a mile for one dollar per rod, and thus make a road A No. 1. We sometimes turnpike one year, and early the next summer put on from five to eight inches of gravel. We lay our roads well up, first making them as narrow and rounding as we can comfortably use; and allow no water to stand at the sides. The best road I ever saw is the one running through Weedport to Auburn—a blue hard gravel on top of plank. The company tried taking out plank and putting in gravel, but thought best to let the plank remain. Plank roads—say what you will of them—have given the country some idea of what a good road may do for us, and we are not contented now with a poor one.

If our experiment in plank roads induce the improvement I hope for, it will yet be better than money spent at the tavern—though what could induce us to show so much folly I can not tell.

HANNIBAL.

CHINESE SUGAR CANE.—The Chinese or African Sugar Cane can be raised in Canada West as easily as Indian Corn. Notwithstanding the unfavorable season last year, I raised a vigorous crop of the African Variety, from nine to twelve feet high. It was carefully housed with the intention of trying to make at least molasses, but the difficulty of getting a suitable pressing machine, unless at great expense, prevented me from testing its saccharine qualities. I shall raise a quantity this year with this view, hoping that a cheap and effective machine may be introduced by the fall, or that others will join me in purchasing one from your locality. As a forage plant I think it must prove a valuable acquisition. Mine was fed to cows in the stable, uncut, and not a particle could be found in the manure in a short time after being fed.

Plant early. It will bear considerable frost in the spring, but the late sown will suffer from slightest frost in the fall; being in full vigor. The sudden check prevents the stalk from curing and it mildews immediately.—R. W. S. Woodstock, C. W.

CURE FOR MURRAIN IN CATTLE.—Having been for many years a reader of your valuable paper, and having derived much useful information therefrom, I wish to ask you to reprint a recipe, for the benefit of your numerous readers who were unacquainted with its columns in 1841. The recipe I first found in the June number in the year 1841; and have since tried it and know it to be good. Give 1½ ounce pearlsh, (saleratus,) dissolved in two quarts of iron water (from blacksmith's troughs.) If not better in five hours, give one-half ounce more in one quart of water. The water should be warm. Give no drink but warm water for two days. Give warm mash to eat. To prevent murrain, give a small quantity—say a teaspoonful—saltpetre and sulphur occasionally.—J. H., Clurence, N. Y.

## BUTTER-MAKING.

OUR January number contained a prize essay on butter-making, and we now offer our readers a portion of one of the essays submitted, containing some details of a practice not common among American dairy-women, but which, to some extent, especially during winter, will be found very serviceable. It is as follows:

Strain the milk into tin vessels, and let it stand for twenty-four hours; then set it on a moderately-heated stove until the milk heaves a little; after which, set it away for twenty-four hours more. Then skim off the cream into a common cream-crock, which makes the best kind of a churn. It would be well to keep the cream-crock in a warm place—say in the kitchen—not too closely covered. When you churn, take a potato-masher, or something similar, (which should be first dipped into boiling water and then into cold, to prevent the butter from sticking to it, also anything that is used in working the butter,) and turn the cream around with it until the butter comes. In warm weather, the time taken in churning is usually from two to five minutes; but in cold weather it takes longer, especially if the cream gets frozen, which it should not. In doing it thus, you not only save a deal of hard labor, but the milk will keep more than as long again by being scalded; besides, the cream is delicious on stewed fruits, pies, or as a substitute for butter. Just try it. The cream is fit for churning as soon as it is skimmed off, and the butter is much sweeter if made before the cream sours.

Morgantown, Wellington Co., C. W.

E. C.

This method is nearly the same as that practiced in Devonshire, England, of which county our correspondent has been a resident. With them the milk is strained into tin or earthen pans holding ten to twelve quarts, and allowed to stand *twelve* hours. The pans are then heated until a thick scum rises to the surface, and until air-bubbles will appear in parting the scum. The milk is then cooled, the cream removed, and is ready for churning, which may be done in a few moments, as stated by our correspondent. Thus is made the celebrated *clouted cream* of Devonshire, well known all over England.

Every one knows how much cream adds to the good qualities of coffee, though not every housewife knows that when she gets a quart or two of milk it should be put in a tin pan and placed upon the stove until heated as before described. Set this away until cool, and cream enough will be furnished for a family of half a dozen persons to use, in connection with the milk from which it was taken, scalded and used hot.

We have no doubt that for butter-making in winter, the method detailed by our correspondent would answer a good purpose; but for summer practice in large dairies, it would be too much labor for the additional benefit.

## SPRING MANAGEMENT OF BEES.

Among the many prominent instinctive laws given to the bees by their Creator, we find that their love of liberty is so great that they had rather die of suffocation from the heat generated by themselves, than to submit to involuntary confinement. To confine them in a warm room, or in a hive out of doors, during weather which is suitable for them to be out, submits them to a very severe punishment, as the open air at such times is their greatest delight.

I have at one time fitted up, and at considerable expense tested thoroughly the practical working of keeping bees in houses according to the most approved theories, and during about eight years of continual experiments, by close observations I have arrived at these conclusions, viz:

Where a number of swarms of bees are collected together in a thoroughly enclosed room, made warm and close by being thoroughly protected from the surrounding cold, that the natural process of generating heat from the body of each bee constantly going on, causes the temperature of the room to be raised to the required heat for hatching, in advance of the same corresponding change in the seasons out of doors; and the result is, that too early in the season the queen is induced to deposit her eggs, the process of hatching them is accomplished, and the whole brood so hatched immediately starves to death, as the weather is not warm enough, nor the season forward enough, so that the working bees can get out, or if out, cannot procure the food which nature has intended to provide at a little later date, for their young. As a parallel case the muller of the apple-tree worm lays her eggs in a branch on a twig in the latter part of summer. By a law of nature, they hatch out the following spring, just at a time when the tender leaves are putting out on the same limb that the worms occupy, and these leaves furnish them with their natural food; and nature has so ordained that these two processes shall go on hand in hand, one dependent on the other. Now, take the same limb containing the eggs, and hang it up in a warm room early in the season. The eggs will hatch out, but the leaves on the limb do not put forth, but have withered and dried up; consequently the worms must die, because no nourishment has been provided for them. And so it is exactly in the case of bees confined in rooms, in most cases. Artificial heat may hatch the eggs, but it can not at the same time produce the necessary change in vegetation to support them.

Look to your bees and hives immediately. See that they are not cracked or split by dampness collected on the inside during the past winter. If so, mend them by screwing, (not nailing) on cletes, &c. If any holes have been bored, to ventilate the hive, (which, by the way, is wrong,) close them all up, and render the hive as near air-tight as possible, by closing all openings except the usual passage-way left for the bees at the bottom of all hives. The bees will make corresponding repairs inside. If your hives are made of single inch boards, I would recommend thatching them with straw, about three inches thick, by beginning at the bottom of the hive and bending the ends over on the top, so that the hive will be completely enveloped in straw. Then, with a pair of shears,

cut away the straw, so that it will be no obstruction to the bees in going in or out of the hive. I think no one who once tries thatching will omit it in future. The hive is now prepared for hatching and raising the young brood. Bees require about the same heat, (90°, or more,) and about the same time which is required to hatch a brood of chickens, and the heat also requires to be a steady heat; and the hive once warmed sufficiently by the bodily warmth of the bees, the young bees will hatch, and the straw on the outside prevents their being chilled or killed by sudden changes, or cold nights or days. This straw should be removed from the hive when apple-trees are in bloom.

Prepare yourselves with suitable hives for the new swarms; see that they are made in a workmanlike manner, and so constructed to meet the instinctive wants of the bee, as far as possible. The kind of hives which I have been led to consider the best, is made of two thicknesses of boards, with a chamber for boxes above. E. KIRBY.

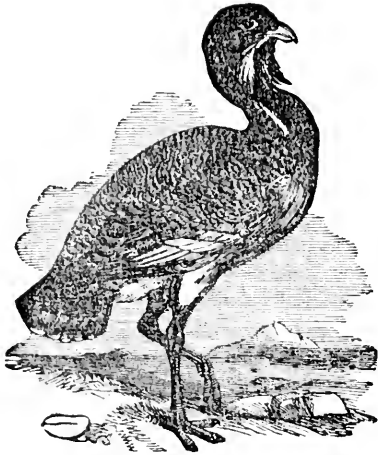
*East Henrietta, N. Y., March 1st, 1850.*

FACILITIES FOR GROWING CATTLE AT THE WEST.—The facilities afforded for this business, by even the settled prairie States, have to be seen to be appreciated—thoroughly examined to be known. All the groves and waste lands are covered with grass, and much in extent of these will remain without fence for the next generation; so that the advantages to be derived from pasturage are to be had free of expense. Winter fodder costs but the securing of it, and sheds for the protection of cattle are made of waste wheat straw, now burned in large quantities; so that the obstacles in the way of growing cattle in this vicinity are very trifling. From my farm westward for many miles, Ill. C. R. R. and speculators' lands (which will not soon be sold) connect, affording range for a vast herd, while Rock Slough furnishes water. Upon these lands, thus far, wild hay as well as pasturage is to be had in abundance. Individuals wishing to enter the business, can do well with time and capital in Illinois.—W. H. GARDNER, near Amboy City, Ill.

FEEDING HORSES.—I believe all that has been said in favor of cut straw and ground feed for horses, yet there may be many people who have more hay and roots than grain, as is the case with myself.

I desired my horses to winter on hay and carrots, and, notwithstanding they were inclined to a cough immediately after they were taken from the pasture, I commenced wetting their hay in advance of feeding. I would pitch down a quantity and sprinkle on water, then shake it up well, put in a close pile, and feed from it, and be sure that when I fed the last that was wet, I prepared more for future feeding. Thus far, with wet hay and carrots, I am satisfied that horses that are not being worked hard, may winter well, even with a cough to begin with. I have tried both cut straw and ground feed, and the hay and carrot feed. For freezing weather I prefer the latter.—L. Beach, Marcellus.

Corn should never follow buckwheat. Potatoes are the best crop to precede corn, grass the next, corn itself next, and, last of all, buckwheat. \*



THE GREAT BUSTARD.

THE Bustard is the largest land bird that is a native of Europe. It was once much more common than it is now, but the increased cultivation of the country, and the extreme delicacy of its flesh, have greatly thinned the species, so that the time may come when it may be doubted whether so large a bird was ever had there. It is probable, long before this, that the Bustard would have been extirpated, but for its peculiar manner of feeding. It inhabits the open and extensive plain, where its food lies in abundance, and where every invader may be seen at a distance.

The Bustard, according to PLUTARCH, was found in Libya, in the environs of Alexandria, in Syria, in Greece, in Spain, in France, the plains of Poitou and Champagne. They are now and then seen in England, and the extensive downs of Salisbury Plain, in the heaths of Sussex and Cambridgeshire, the Dorsetshire uplands, and as far as East Lothian in Scotland. In those extensive plains where there is no woods to screen the sportsman, no hedges to creep along, the Bustards enjoy an indolent security. Their food is composed of the berries that grow among the heath, and the large earth worms that appear in great quantities on the downs before sunrise, in summer. They also eat green wheat, the tops of turnips, and other vegetables; and have even been known to devour frogs, mice, and young birds. It is in vain that the fowler creeps forward to approach them; they have always sentinels placed at proper eminences, which are ever on the watch, and warn the flock of the smallest appearance of danger. All, therefore, that is left for the sportsman, is the comfortless view of their distant security. He may wish, but they are in safety.

It sometimes happens that these birds, though they are seldom shot by the gun, are run down by greyhounds. As they are voracious and greedy, they often sacrifice their safety to their appetites, and feed themselves so very fat, that they are unable to fly without preparation. When the greyhound, therefore, comes within a certain distance, the Bustard runs off, flapping its wings and endeavoring to gather air under them to rise; in the meantime the enemy approaches nearer till it is too late for the bird even to think of obtaining

safety by flight; for, just at the rise, there is always time lost, and of this the bird is sensible; it, therefore, continues on the foot until it is taken.

As there are few places where they can at once find proper food and security, so they generally continue near their old haunts, seldom wandering above twenty or thirty miles from home. As their food is replete with moistures, it enables them to live upon those dry plains where there are scarcely any springs of water, a long time without drinking. Besides this, nature has given the males an admirable magazine for their security against thirst. This is a pouch, the entrance of which lies immediately under the tongue, and capable of holding near seven quarts of water. This is probably filled upon proper occasions, to supply the hen when sitting, or the young before they can fly. The Bustard makes use of its reservoir to defend itself against birds of prey; which it affects by ejecting the water with such violence as often to arrest the progress of its enemy.

The weight of this bird varies considerably.—Some have been found of not more than ten pounds, others have been found of twenty-seven, and even thirty. The female is not more than half the size of the males. The Bustard is distinguished from the Ostrich and Cassowary by its wings, which, although disproportioned to the size of its body, yet serve to elevate in the air, and enable it to fly, though with some difficulty; they are generally about four feet from tip to tip, one to the other.

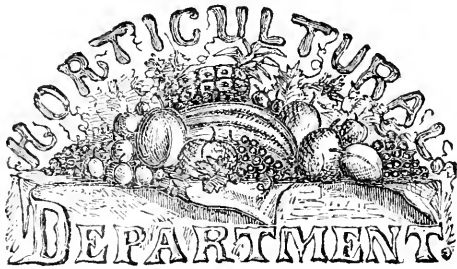
The Bustard is not known in America. Besides the delicacy of its flesh, the quills were once valuable, as they made excellent pens, but they are still more valued by anglers, who use them for floats; for as they are spotted with black, the notion is that these black spots appear as flies to the fish, which they rather allure than drive away by their appearance.

C. N. BEMENT.

*Springville, March, 1859.*

AN EASY WAY TO CULTIVATE POTATOES.—Prepare the ground well; and if not a strong turf the ground may be furrowed very shallow. Drop the potatoes any desired distance apart you please, cover them with a plow, making a sharp ridge.—You will disturb some of the end hills by turning around; but with a little more seed and a hoe that evil may be remedied. The potatoes will be covered rather deep; but some days after planting take a common log chain, hook each end of the chain around a good bunch of timber brush, and hitch your team to a centre link of the chain, putting a spreader into the chain in order to carry the front end of the brush in each furrow, letting the brushy parts lap over each other; lay a short board across, and you may ride at ease, and see your ground swept as clean as you could desire. After the potatoes have begun to break ground, repeat the same operation, and you will be pleased to see all the small weeds brushed out of the hills. The remainder must be done by hoe and cultivator.—L. BEACH, *Romulus, N. Y.*

WITHOUT animals to use the oxygen, and return the carbon to the atmosphere, plants could not live. Without plants to use the carbon, and return the oxygen to the atmosphere, animals could not live.



### HORTICULTURAL NOTES FOR THE MONTH.

If the weather continues as fine as it is at present (March 16,) nearly all the early garden crops will have been planted before this number reaches our readers. Early peas, onions, carrots, cabbages, cauliflowers, lettuce, radishes, celery, &c., will have been sown on the warmest soil in the garden. If not, they should be sown immediately, or at least as soon as the ground is in working condition, but not till then. If not already done, a few early potatoes should be planted immediately. By keeping them in a warm place for a few days before planting, they will start earlier. Peas, if possible, should be planted in a single row, as they then get more light and heat, and produce earlier and more abundantly. If this cannot be done, plant in rows four feet apart; or five feet, with a row of early cauliflowers or cabbage between them. Some English gardeners plant peas in hills from three to five feet apart, according to the variety, five or six peas to each hill. They are poled like beans. The amount of seed necessary depends on the variety; the early dwarf kinds require about 30 peas to each lineal foot; dwarf marrowfats, 24; tall marrowfats and all of similar habit, 12. The small sized peas should be planted  $2\frac{1}{2}$  inches deep; the large sized  $3\frac{1}{2}$  inches. Do not tread them in, especially if the soil is at all wet or heavy.—*Early Kent*, *Champion of England*, and *Knight's Dwarf Marrow*, sown at the same time, will ripen in succession. The *Champion of England* is a delicious pea, and very productive.

**LIMA BEANS.**—Plant on warm, dry soil, in hills four feet apart. The soil should be as rich as possible. Stick a pole about ten feet long in each hill, and plant five or six beans around it. This is better than poling when the beans are up, as the operation is apt to disturb the plants. Three plants in a hill are sufficient. If cold, wet weather comes, and the plants die, plant again immediately.

**STRING BEANS** are sown in drills like peas. They should have a warm soil and a sunny situation. One pint of beans will plant a row fifty feet long.

If more than one row is needed, make the rows two feet deep.

**ONIONS AND CARROTS** should be sown in rows one foot apart. The former delight in rather a heavy loam; the latter in loose, deep, rich soil. The *Early Short-horn* is the best carrot for table use. It may be eaten when quite young, and should consequently be sown thick, and thinned out as wanted.

**PARSNIPS AND BEETS.**—Sow in rows two feet apart, and thin out ten to twelve inches in the rows.

**CABBAGE AND CAULIFLOWERS.**—Sow on a warm border or gentle hot-bed. Sow thick, so as to have plenty for the fly and enough for yourself, and thin out and transplant if too thick. They are always better for transplanting before finally setting out. The same remarks apply to celery and tomatoes.

**RASPBERRY CANES**, if they have been covered, should be taken out and tied to stakes. The canes should be shortened back, leaving them from two to four feet long, according to strength.

**ASPARAGUS BEDS** should be slightly forked over and manured.

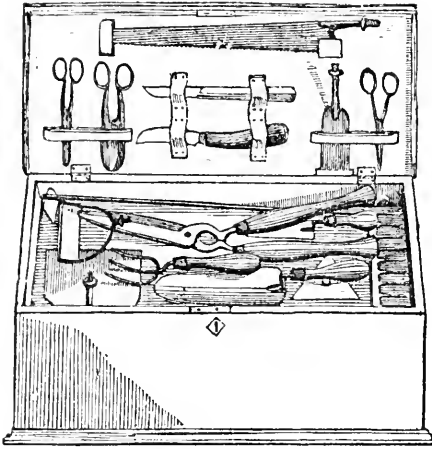
**THE HOT-BED** will require careful attention this month. If too cold, some fresh, warm horse-dung should be placed round it. The cucumber vines should be pegged down, cutting out all but the strong and fruitful vines. These should be trained so as to cover all the space—say from twelve to fifteen inches apart. As soon as the fruit is set, and begins to smell, the vines should be pinched off two leaves above the fruit. By the time the first cucumbers are ready to cut, the vines will have pushed out again and formed new fruit, which will grow rapidly as soon as the other is removed. Unless the vine is very strong, not more than one cucumber should be left on at a time.

The celery, tomatoes, egg-plants, &c., sown in boxes in the hot-bed, should be removed to a cold frame, or if the weather is very warm, to a sunny border. In transplanting, care should be taken to disturb the roots as little as possible. They should have a gentle watering, if necessary, with water of a temperature of above  $60^{\circ}$ . They should be set out in rows four or five inches apart, and remain here till the ground is ready for their final setting out.

To insure a good vegetable garden, the soil can not be too rich. Rapid growth is desirable. It is better to manure in the fall; but if this has been neglected, the ground should now be spaded and heavily manured with rich, well-rotted dung, and be careful to *thoroughly incorporate* it with the soil.

**USEFUL TOOLS.**

As the gardener and horticulturist must soon begin active operations, we offer some illustrations and brief notes of tools appropriate to the season.



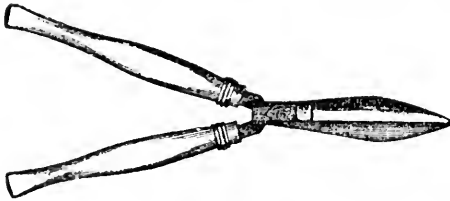
A HORTICULTURAL TOOL-CHEST

contains most of the small implements used in pruning, grafting, budding, transplanting, etc., and which, if kept near the workman, saves time and ensures successful operations.



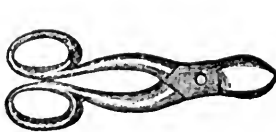
A BILL-HOOK

is useful for cutting up bushes, sprouts, briars, etc., and lopping off branches that can not be so well reached by the saw, which should always be the main implement in pruning. For trimming hedges



TRIMMING SHEARS.

and occasionally pruning thorny bushes, use is made of a pair of stout shears with long handles;



PRUNING SCISSORS.



BORDER KNIFE.

while for dressing rose and other small bushes, especially for ladies' use, we have smaller scissors

adapted to that purpose. For cutting true and smooth the grassy borders of lawns, walks, etc., use is made of a border knife, to which is affixed a handle similar to that of a hoe. When the trunks of trees become rough and mossy, they may be rendered smooth and ornamental by using the



TREE SCRAPER

followed by washing with strong soap suds or weak lye, freeing them from insects, and making them more healthy.

**TRANSACTIONS OF THE MASSACHUSETTS HORTICULTURAL SOCIETY FOR 1858.**

This volume, issued at the close of each year, always contains a fund of valuable and reliable horticultural information. The present volume, for which we are indebted to Dr. EBEN WIGHT, is especially replete with interesting matter, and we propose to make a few extracts from it for the benefit of our readers who have not access to it. The Report of the Committee on Flowers, which is unusually attractive, we shall refer to in a future number, and for the present pass over it and briefly notice a few points in the Report of the Committee on Fruits:

"STRAWBERRIES.—The first strawberries of the season, grown in the open air, were a box of *Early Virginias*, shown on the 12th of June, the exhibitor stating that he picked ripe berries from his vines on the 6th; and the second was a box of a new seedling, called *Page's Seedling*, exhibited on June 19th. *Page's Seedling* is a handsome strawberry, of good size, conical form, and dark color. It is good flavored, but seemed rather soft in the flesh. As it is so early a variety, it may prove desirable. \* \* \* \* Among the newer varieties may be mentioned *Leopold*, a very large crimson strawberry, of a coxcomb shape; *Marquis La Tour Mauburg*, large, dark colored; *Trollope's Victoria*, also large and fine, but of a color rather too pale; *River's seedling Eliza*, a large, coxcomb-shaped, crimson berry; *Blake's Incomparable*, a crimson; and *Adair*, a good sized scarlet variety.

"As no opportunity was afforded the Committee to test, in a satisfactory manner, the different varieties, the expression of any opinion with respect to their flavor is purposely withheld, as such, not carefully and deliberately formed, might give an erroneous impression. It may not be amiss, however, to say, that scarcely any of the foreign varieties of the strawberry have continued, for any long period, to give satisfactory results. They seem more tender than the American varieties—more liable to be burnt by the sun in summer, and injured by the cold in winter; besides that, they are all, or nearly all, staminate or perfect in their flowers; and unless more care and attention is paid than can usually be bestowed on their cultivation,

they become unproductive. The great size of their berries, their beauty and flavor, may render some of the foreign varieties desirable for the garden of the amateur; but it is believed that they will in no case be found adapted to the purposes of those who desire to produce this fruit on an extended scale; and while such results as are now had can be obtained from the cultivation of American varieties, it is hardly worth while to resort to foreign sources for any additional supply.

"Of the long-established and well-known favorite sorts of this fruit, no remarks are necessary, unless it be to say that the *Jenny Lind*, having now been subjected to the test of a somewhat extended and general cultivation, seems to justify the encomiums that were bestowed on it at its first appearance. It was then said that it seemed to be an improvement on the *Virginia Scarlet*, to which it bore a resemblance, and was well adapted to be a fertilizer to some of the pistillate sorts—a belief now confirmed by subsequent experience."

"CURRANTS.—For a long time the *Red and White Dutch* were the only currants cultivated, and seedlings raised from them, with a view to improvement, did not seem essentially to vary in character from their progenitors. Some years since, *May's Victoria* was produced, and it was at that time expected that it would prove to be a decided improvement. It has not, however, answered the expectations that were formed; for, except that the bunches are much longer, it does not exhibit any superiority. Subsequently, the *Red and White Gondoin* and *Fertile de Paillex* were originated, and these, particularly the two first, proved to be an improvement on the old red and white varieties. Within the last year or two, several new varieties of foreign origin have been introduced, that, it now seems probable, will, from their superiority, supersede the old sorts. Among such are the *Fertile d'Angers*, *La Caucase*, *La Versaillaise*, *Macrocarpa*, the *Champagne*, *Hatif de Bertin*, and *Blanc Transparente*, though this last may prove to be the same as the *White Grape*. Several of these varieties have been exhibited the past year in considerable quantities, and, by their beauty and the great size of both bunches and berries, attracted much attention. Some berries of the *Versaillaise* were found, on measuring them, to be two inches in circumference. Several of these new currants are fully equal in size to the *Cherry*, a variety too acid for the dessert, and at the same time are sweeter and richer than the old kinds. Among those that may be safely, it is believed, recommended, are the three first named in the above list."

"BLACKBERRIES.—The exhibition of blackberries, the past year, has been confined to the *Dorchester* and the *Lawton* or *New Rochelle*. Indeed, these are the only ones at present known that are worthy of cultivation. The show of this fruit the past year was very fine. In size and beauty, the berries of both varieties that were exhibited were probably never surpassed. Twenty-five berries of the *Lawton* weighed six and one-sixteenth ounces; while twenty-five berries of the *Dorchester* weighed five and eleven-sixteenths ounces. Still larger berries of the *Dorchester* were, however, subsequently exhibited, though not weighed. Cultivators in this vicinity esteem the *Dorchester* decidedly superior to the *Lawton*: it is much sweeter, and therefore

more generally acceptable; besides, that while the *Dorchester*, upon being gathered, retains its deep, lustrous black color, the *Lawton* soon becomes of a deep reddish brown or bronze color, and therefore less saleable. Notwithstanding this, the *Lawton*, when thoroughly ripe, is, though rather acid, a rich, high-flavored berry, and it is thought has hardly had justice done to it. It bears to the *Dorchester* a relation somewhat similar to that borne by the fruit of the common trailing bramble to the highbush blackberry. Both are valuable varieties, and leave scarcely anything further to be desired in this species of fruit."

"GRAPES.—During the last few years, no fruit, unless it be the pear, has excited so much interest as the grape; and confident expectation has been indulged that from seedlings, now being extensively raised, some new varieties would be produced, that, free from the defects of the native grape, should be of fine quality, hardy, and sufficiently early to attain maturity under ordinary circumstances in the open air in Massachusetts. Although this expectation has not as yet been fully realized, still, this is no cause for discouragement, especially in view of what has already been obtained in the *Diana* and *Delaware*, both a near approach to the requirements of cultivators. The great desideratum seems to be a grape of good size, suited to the dessert, that shall perfectly ripen its fruit during our short summer, that which some varieties of those not yet fully tested may prove to be. There are already good grapes, if they could be produced perfectly ripe, as the *Isabella*, *Catawba*, &c. Indeed, both these sorts, when thoroughly ripened, leave, so far as quality is concerned, but little more to be desired; but it is to be questioned, whether even the first, certainly not the last, ever, unless under the most exceptional circumstances, thoroughly ripens its fruit in the open air in New England. Should this opinion seem rash or ill-founded, let but a comparison be made between these varieties, when grown at the South, or here in a grape-house, perfectly ripe, and the ripest and best specimens that can be obtained grown in the open air, and the inferiority of the latter will be at once manifest. And this same remark, it is believed, is also applicable to the *Concord*, a somewhat earlier variety than the *Isabella*, but which it is thought will prove to be better adapted to a more southern latitude than to this, where it originated. The *Hartford Prolific* has lately received warm commendations from some sources, and seems to answer this requirement of earliness; ripe grapes, of this sort, grown in Hartford, having been tested this year on the 14th September; but its earliness is its chief recommendation; it is tolerably sweet, but is not wholly free from the peculiar flavor, as well as the hard pulp of the native varieties, and therefore hardly suited to the table. Besides that there is this objection to it: the berries, when ripe, fall from the vine at a slight touch."

"Of all the grapes recently introduced, there is none, that for size, beauty, and flavor, is superior to the *Union Village*, if there is any that equal it, unless one, to be presently noticed, shall hereafter prove an exception. The only misgiving that is felt with respect to this variety, is that it may not be sufficiently early to arrive at perfect maturity when raised in the open air. It is, however, about

eight days earlier than the *Isabella*. This grape has only been fruited in this vicinity by Mr. E. A. BRACKETT, of Winchester, if, indeed, any one here but Mr. BRACKETT, and those who have received vines from him, have the true variety, as vines received from Ohio, two years since, with every guarantee to their correctness that could be desired, have not proved to be so."

"With the information upon this subject at present possessed, if called upon to recommend grapes, that, taking all circumstances into the account, may be considered as best adapted to out-door cultivation in Massachusetts, but little hesitation would be felt in naming the *Diana* and the *Delaware*. The *Diana* is too well known to call for any remarks concerning it, and with the *Delaware* cultivators are somewhat acquainted, as, although of recent introduction here, various opportunities for testing its qualities have been afforded. The *Delaware* has been received from Delaware, Ohio, but is probably a native of one of the Middle States. It is, although until recently but little known, not a new grape; for, if statements of in every way a reliable character can be depended on, the *Delaware* was, more than thirty years ago, in the possession of Mr. PREVOST, of New Jersey. Mr. CAMPBELL, of Ohio, writes that he this year 'picked ripe specimens from a fair southern exposure on the 15th of August.'"

"It has been said above, that it was believed that the *Union Village* had no superior unless with one exception. The exception intended is a new seedling, raised from it by Mr. BRACKETT. It fruited this year for the first time, with berries larger than those of the *Union Village*, that were pronounced by those who tasted them to be of superior flavor. It is believed to be a grape of great promise."

"APPLES.—At some of the weekly exhibitions there was a fine display of apples; among them, in October, the following that had not been before noticed: the *Boxford*, a large yellow apple, nearly covered with stripes and blotches of red, remarkably tender and very pleasant flavor; and the *Polliard*, probably a local name. This last was more beautiful than the *Maiden's Blush*, which it resembled in its color, with a very white flesh of a very agreeable subacid flavor. Both these varieties made a very favorable impression.

"At the annual exhibition, the display of apples was very fine, and there were some varieties of recent origin or of late introduction; as the *Ohio Nonpareil*, a yellow apple, with red in the sun, of medium size, now, it is supposed, raised for the first time in this vicinity. This apple is held in high estimation in Ohio, but, so far as can be judged from a single trial, not too much so. It has been pronounced by some, whose opinions are usually deemed authority, to be identical with the *Cogswell*, but it is believed that this opinion has been expressed under some misapprehension with respect to the varieties, and that they are not the same, the two varieties differing, it is said, in both wood and leaf. The *John's Sweet*, a New Hampshire apple of good size, mostly covered with stripes and blotches of red, a profuse bearer; and the *Ledge*, now fruited for the first time in this vicinity, were also upon the tables. The *Ledge*, when it was first exhibited some ten years since from

Portsmouth, attracted much observation, and was commended by the then Fruit Committee as promising to be of great value as a late-keeping sweet variety. Grafts then obtained seem to be coming into bearing, and it is to be hoped that it will justify the encomiums that have been bestowed on it.—*Smith's Cider* was also exhibited for the first time. The specimens were of medium size, yellow color, with blotches and stripes of red. This is a Pennsylvania apple, and is extensively cultivated in the Middle States and at the West. It may be that it is peculiarly valuable as a cider apple, but if, by that appellation, it is intended to designate a fruit valuable to manufacture into cider only, it is certainly a misnomer, for it is a fine table fruit. It is a most abundant bearer and of vigorous growth.

"These four last-named varieties were exhibited by Dr. WIGG, who has paid great attention to the cultivation of the apple, and are strongly recommended by him as well worthy the notice of growers of this fruit. Specimens of the *Washington*, which excited so much interest at its first exhibition three years since, were also shown by him, and also by Messrs. HERBERT, FOSTER and EVERS, and the *Northern Spy* and *Bottle Greening* from the garden of the late Capt. LOVETT."

"PEARS.—There have been some new pears and some of recent introduction exhibited the past year. Of such, a portion at least seem to call for more than this passing notice. Among them the following may be specified:"

\* \* \* \* \*

"*Alexandrina*, a new pear, introduced by Messrs HOVEY, resembling somewhat in form and appearance the *Fondante de Noel*, a very handsome fruit of medium size, melting, juicy, sweet, and pleasant, though of not very decided flavor. Ripe in Oct.

"*Madam Eliza*, though it has before fruited, was exhibited, it is believed, this year for the first time by Col. WILDER. It is a large pear, of pyriform shape, green color, melting and juicy, with somewhat of the rose flavor.

"*Neuf Maison*, from Mr. WALKER. There has been some confusion about this variety, it having, so far as is known, proved heretofore, upon fruiting, to be synonymous with some other. This was a smooth, green pear, of medium size, with a large, straight stem, and an open calyx in a shallow basin, presumed to be correct. It was not tasted, but Mr. W. says it is of good quality.

"*Beurré Antoinette*, now first exhibited, is of medium size, with a yellowish-green skin, long stem, flesh greenish-white, tender, juicy, and of very pleasant flavor. Ripe middle of October.

"*Bergamotte Gaudry*, a very pleasant, melting, juicy fruit, of a slight bergamotte flavor, has some stony concretions about the seeds; of medium size; color yellow, but nearly covered with stripes and blotches of russet.

"*Doyenné du Comice*, not new, but worthy of notice, as it proves to be a very melting, juicy, fine pear, that is believed to be worthy of an extended cultivation. It is peculiarly well adapted to the quince stock.

"*Beurré Mauzion*, of medium size, short stout stem, of a russet color, thin skin, melting, juicy, of a spirited pleasant flavor. Season early in October.

"*Souvenir d'Esperin* is a long pear, above medium size, with a thin yellow skin nearly covered



russet; flesh melting, juicy, of a pleasant sub-flavor, but rather lacks sweetness and richness. At one of the weekly exhibitions of the Society, on October 23, a dish of the *Beurré Bachelier* was exhibited by Mr. H. CURTIS. These specimens were large, perfectly fair and smooth, and very handsome, and are thought deserving of mention, because the fruit of this variety is generally knotted and warty, as showing what may be expected of it even in skillful hands or a suitable situation.

*De Tongres.*—As considerable interest has been excited respecting this pear, it may not be amiss to state, as a matter of record, that, though not excited, it has fruited the past year and been seen by some of the Committee. The specimens seen were of good size, but not equal in that respect, or beauty, to the colored representations of it; they were of a spirited, brisk flavor, somewhat like that of the *Beurré d'Arenberg*."

CULTIVATION OF THE GRAPE.—No. 3.

TREATMENT OF THE VINES THE SECOND YEAR.

PRESUMING the young vines to have been carefully tended during the first summer's growth, they will at the end of the season have produced strong canes three to six feet in length, and will present somewhat the appearance of fig. 10. The winter is the time to prune, and in mild seasons the month of February will be the best period; but

in severe weather, it had better be deferred until it becomes a little milder. But when put off late, the vines are apt to bleed a great deal; and though the bleeding may not be so injurious as many persons suppose, it can not do any good, and may as well be avoided as much as possible. In pruning this year, the vines must be cut down to the lowest good, and plump bud, within two or three inches of the ground, as represented in fig. 11. Set the edge of the knife at the back of the bud, and at one inch above it, take it off at one clean cut.

If the vineyard has been planted with cuttings, at a stake, wherever both have grown one will be taken away—either cut away with a knife, or carefully dug away without injury to the other. Always leave the best vine; and those which are taken up will do to fill vacancies where others may have died. Many persons perform this operation in the month of October; but as we sometimes have very severe winters, I think it had better be deferred till spring, to avoid winter heaviness of the newly-planted vines. It should, however, be performed as early in the spring as the weather will admit—when the ground is good working order; but not in very wet or cold, windy or frosty weather.

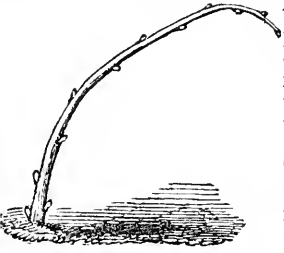


FIG. 10.



FIG. 11.

As soon as the weeds begin to grow, the soil will want stirring, either with the cultivator or hoe, so as to kill the weeds, and stir the soil around the plants. This operation should be repeated as soon as the weeds begin to show themselves again. When the weather begins to set in hot and dry, if a little mulching of littersy manure, or short grass, leaves, or anything that will keep the ground partially shaded and moist, be applied around the young vine, it will be of great service.



FIG. 12.

The vines may be allowed to grow at will this summer, without stakes, and trained to one cane. During the summer, small lateral shoots will be produced from the axil of each large leaf on the main cane, which must be cut back to one leaf when it has grown two or three leaves in length. The object of this is to concentrate the sap in the main cane, instead of its being wasted in the laterals, that it may be as strong and well-ripened as possible.

Fig. 12 shows a section of a main cane, and the small line on the lateral where it is to be cut off.

TREATMENT OF THE VINES THE THIRD YEAR.

In February of the third year, the vines are again pruned down to the lowest good bud, within four or six inches of the ground, as represented in fig. 13. If the vineyard has been planted with rooted plants, a few grapes may be had this year, but not more than two or three bunches to a vine; but if it has been made with cuttings, no fruit may be allowed until the fourth year.

The vines must now be supplied with stakes, and preparations made for whatever mode of training is to be adopted. Some planters train their vines to one stake, some to two, others to three, and others again to four. Where only one stake is used—which, perhaps, is the best, where vines are planted only four feet apart each way—the stake is set immediately at the head of the vine, and on the north side of it, as in fig. 14. Where two stakes are used, they are set out as represented in fig. 15. Where the ground is strong, and the



FIG. 13.



FIG. 14.

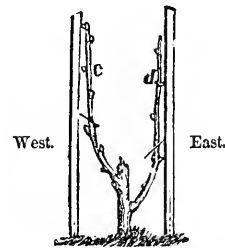
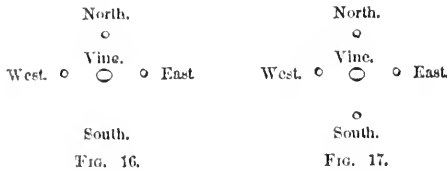


FIG. 15.

vines planted five feet apart, or four by five, the stakes should be set one foot from the vine, east and west. They will then cast less shade early in

the morning than when set north and south. Where three stakes are used, they are set as represented in fig. 16; where four are used, as in fig. 17.



Where one stake is used, only two canes must be allowed to grow this (the third) summer, which will, at the end of the season, look like fig. 14; if two stakes be adopted, like fig. 15.

The summer pruning will consist in rubbing out all superfluous shoots, pinching in the laterals, as in fig. 12, and keeping the canes carefully tied to the stakes. It is a good practice to pinch in the leading cane when it has grown four feet in length, or when it begins to turn brown at the bottom. This throws back the sap into the lower buds, and strengthens and assists their swelling and ripening for bearing fruit the next year. Keep the vineyard nicely cultivated and all clear of weeds, and avoid all unnecessary walking and trampling about.

#### TREATMENT OF THE VINES THE FOURTH YEAR.

This season the vines will be in good bearing condition, and must be pruned accordingly. It is best, however, not to train them to bows until the fifth year, as they would be likely to show more fruit than the vine could sustain without exhausting it too much for the year following. In February of this season, cane *a*, in fig. 14, is cut back to the small line drawn across it, leaving it about four or five buds, or twelve to fifteen inches, in length. From the buds on this spur, the fruit-bearing shoots will be produced. Cane *b* is cut down to the lowest good bud; the small line drawn across it indicates the place where it is to be cut.

During the present summer, while the spur *a* is bearing fruit, a spur from cane *b* is trained up for fruiting in the year following—say in 1859, for fruiting in 1860. In fig. 15, the canes *c* and *d* are cut down to three or four buds, or eight or ten inches, in length, that the two together may not bear much more fruit this season than the longer one in fig. 14.

During this summer, two canes are taken up from each spur, in fig. 15, and allowed to bear fruit. The cane starting from the upper bud is to form the bow for fruiting in the fifth season; and the other is to cut back to form a spur, from which a cane is taken during the fifth season to form the bow for fruiting during the sixth season. This is called the renewal system, and is the one generally approved of. The bearing cane is cut down annually after having borne fruit, and its place is annually supplied with a new cane.

In the fall of the fourth year, the vine will have the appearance of fig. 18; and in the spring of the fifth year, after being trimmed and tied to the stakes, that of fig. 19. The two small branches, *a*, *a*, below the spurs in fig. 18, must be pruned back to where the line indicates; but a new shoot must be carefully preserved from year to year, in case of accident to either of the other canes. The bow

should be from five to eight buds in length, according to the strength of the vine. Great care and nice judgment are required in bending the bow

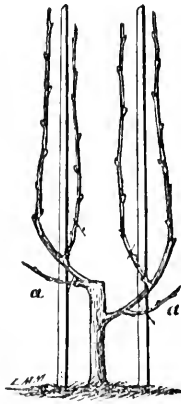


FIG. 15.

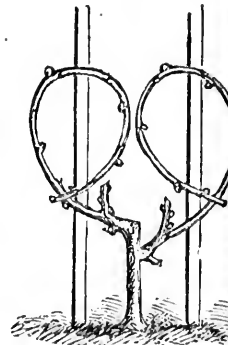


FIG. 19.

They should be made in the mornings, in cloudy, moist weather; for when the wood is dry it is more brittle. The bows should be round as possible, and all sharp bends carefully avoided, to prevent fracturing the canes, as, without this caution, much injury may be done. The object of making the bows is to equalize the flow of sap in all the buds, that the lower buds start with equal vigor with the upper ones; otherwise, if the canes were left straight, the whole of the sap would be driven into the upper buds to the great detriment of those upon the lower of the cane.

**SUMMER TREATMENT.**—The summer treatment of the vines will consist in carefully securing the young shoots when they are about a foot in length. The junction of the young and old wood is so weak just at this time, that, if not secured, a sudden storm may cause great injury, by breaking them off. Wherever more than one shoot starts from one bud, all superfluous shoots must be rubbed off, leaving but one shoot, and that the best. When the shoots are all carefully secured they must be pinched back to two leaves above the highest bunch of grapes; and all the laterals produced upon these shoots, as well as the future cane, for fruiting next year, must be pinched in to one leaf; and this future fruiting may be stopped, by pinching out its leader, when it has grown four feet in length, or when it begins to turn brown at the bottom.

This summer pinching, if judiciously performed, is of great benefit to the vines. It throws back the sap into the young and swelling fruit and the lower part of the vine, instead of its being expended in weak and straggling branches. There is still some age enough left to shade the fruit, and to elicit the sap round about the bunches, keep the vines healthy, and thoroughly ripen its wood. My practice is to leave two leaves above the bunch, where the leaves are large and healthy; and three or four where small and weak: for I have always observed that one good, broad, and healthy leaf, is worth more in ripening up a cluster of grapes than a dozen small and weakly ones.

**SETTING THE STAKES.**—The stakes should be of good, lasting wood, such as oak, ash, hickory, or, chestnut, &c. They should be about two inches thick, and five feet six inches long, to be driven eighteen inches into the ground, which will be four feet out. The best way of setting them, is to punch a hole with a round, sharp-pointed bar, of about the thickness of the stake; set the stake in the hole, and drive it home with a mallet. Be careful that they are set in their exact position, and upright, that they may come in perfectly straight rows every way.

Every spring the stakes must be examined, to see that they are sound, and not heaved out of position by the winter's freezing. If any are found to be rotten, they must be replaced by new ones, or, if decayed, the sound end being put in the ground. In France, about Fontainebleau, the vines are trained in the fall, and all the stakes are pulled up and carried under cover, or piled in little stacks in the vineyard, and re-set in the spring. They stick the stakes in the ground, something in the form of a sawbuck, and then pile a number of stakes on each side of the position that a stick of wood is placed to be used; but I forget how to describe it exactly. They must preserve them much longer than if they were left in the ground altogether. In France, the stakes are usually done with a small white rush; in this country, with a willow twig, which is twisted rather than tied. The small yellow willow is the best, and it is well to have a small patch of them growing for the use of every vineyard. Fifty plants, in three years old, will produce ties enough for an acre of vines. They should be planted in wet soil, 4 feet apart each way, and headed down every spring.

#### WHAT VARIETIES OF GRAPES TO PLANT.

The *Catawba* and *Isabella* are so generally well known, that it is useless to make any remarks of them. But of some of the newest kinds which have been well tried and brought into notice in the last ten years, it may be well to give a brief description, for the benefit of those who are not yet familiar with these as yet scarce, but most delicious and luscious of our hardy grapes.

With your leave, Messrs. Editors, as my list must be a beginning, as well as any other list, and as the *Delaware* is universally conceded to be at the head of every native collection, I shall begin with that variety.

The *Delaware* has been mostly disseminated by THOMSON, of Delaware, Ohio; hence its name. I will give a memorandum which I made while trying some beautiful *Delawares* sent us by Mr. Thomson, early last September. "The size is small to medium, one bunch shouldered. Bunch compact, three and a half inches long, one and one-fourths diameter; berry, one-half to five-eighths of an inch diameter; form round; quality best, tasting like fine flavored sugar, and dissolving completely in the mouth, leaving a lusciousness on the palate; seeds, one to two; color, dark purple or chocolate; time of ripening first of September, have been gathered ripe as early as fifteenth of August, 1858. One of the *hardest* vines we have.

**ROGAN.**—The best *earliest* grape, having been gathered ripe tenth of August, 1858. Bunch, size of shape of a medium *Isabella*; color, black; quality very good; quite as hardy as the *Delaware*.

**DIANA.**—Second in quality to but one, and that the *Delaware*. Perfectly hardy, strong and free grower, and one of the freest and earliest bearers that I know of. Begins to ripen a few scattering berries the middle of September, which are sweet as soon as colored; keeps improving till middle of October, if allowed to hang so late. A fully ripe *Diana* is perfectly luscious and cloying, leaving the lips, after eating a bunch, slightly sticky, as though we had been tasting syrup. It is destined to be as good a wine grape for New York as the *Catawba* for Ohio. Hangs well on the vine, and also on the bunch after being gathered, and is a good keeper; color, when fully ripe, dark amber.

**CONCORD.**—When well grown, the largest and finest looking, both in bunch and berry; hardest black grape we have. Time of ripening, a fortnight earlier than the *Isabella*, and more hardy than that variety; quality, sweet and very good, with a little native aroma. Is being extensively planted, both for fruit and wine, and is growing in favor every year.

**NORTHERN MUSCADINE.**—Very hardy; moderate grower; good bearer, and is principally valuable for its early ripening quality. Time of ripening, middle of September, and has a good deal of that peculiar native aroma, of which some people are very fond, and others are not. Must be gathered as soon as ripe, or the berries are liable to fall from the bunch; color, dark red.

**TO KALON.**—The *To Kalon* is one of the finest grapes. When well ripened it is perfectly sweet and luscious, with a very agreeable aroma. Flesh very delicate and tender, the seeds leaving it as freely as from any foreign variety. Berries an inch in diameter; bunch large; color, dark amber, inclining to black; quite hardy; strong grower with peculiarly beautiful foliage, and moderate bearer.

**UNION VILLAGE.**—The *Union Village* is everywhere spoken of as being a splendid grape, as large as the *Black Hamburg*. The fruit I have not yet seen, but the vine is a fine grower.

**REBECCA.**—This is a beautiful *white* grape.—Bunch very compact; berry slightly oval, with a delicate bloom; flesh delicate, sweet and juicy; very good. The vine is a delicate grower the first year, but afterwards moderately strong.

**GOLDEN CLINTON.**—This a seedling from the common *Clinton*; perfectly hardy; free grower; and a great bearer. Ripe fifteenth of September; skin thin; flesh very sweet and juicy, with no pulp. A nice white grape.

**KING.**—Very hardy; free grower; an abundant bearer; the fruit of one vine having sold in one year for \$15, at the rate of 12½ cents per pound. Bunch and berry small to medium; berry, round; color, black; skin rather thick, which makes it a good keeper. I have a bunch by me now, (16th of March,) which was cut from the vine the 2d of last September, and is pretty fair raisins; flesh of some consistence; good; time of ripening, last week in August. Its best qualities are, it is extremely early, hardy, and a great bearer.

Rochester, N. Y., March, 1859. JOSIAH SALTER.

THOUGH rapid growth is desirable in succulent vegetables, this is not the case with most flowering shrubs, which form bushy, and therefore handsomer plants, when grown slowly.

## GRAFTING THE GRAPE VINE.

How does Mr. *SALTER* retard his grape scions for grafting after the leaf has started, as recommended by him in the March number of the *Farmer*?

It could be done in an ice-house, probably. In fact, I do not see how else. Or does he graft without retarding the scions?

Mr. *SAMUEL MILLER*, of Lebanon, Pa., recommends in the February number of the *Cincinnati*, grafting the vine at the earliest possible period that the ground can be worked in the spring, and says he has been successful that way, but never in a single instance in the other.

Mr. *WARREN*, a successful vine-grower and wine-maker of York, Livingston Co., New York, now practices early grafting, as he informs me, although he formerly recommended late grafting and retarding the scions for that purpose.

Several years ago, desiring to substitute other sorts for some large *Clinton* vines, I attempted to graft them, unsuccessfully, late in the spring; but want of skill and experience were sufficient causes of failure in my case.

Many farmers have abundance of wild vines on their premises, which, if they could be successfully grafted with superior sorts, would greatly facilitate the growth of scions as it would seem, and Mr. *MILLER* asserts that grape grafts have sometimes grown twenty feet the first season, and are sure to bear a crop the next. His method is to cut off the vine some two inches below the ground, split and graft in the usual way, one bud or two to a graft, use no cement, but draw the earth around up to the end of the graft; then cover with leaves or rubbish to prevent the ground from freezing and lifting it out."

Mr. *WARREN*'s method, (kindly furnished me by him for insertion in your paper,) is slightly different, although he says "it is very simple, and if done in season you will not lose one in twenty. Very early in the spring," he says, "as soon as the frost is out of the ground, before the sap in the vine begins to circulate, I dig the earth away from the body of the vine as low as the roots will allow, saw off and split the stub as I would in grafting an apple, insert the cutting like a wedge, have the bark match the same as with any thing else. I pare the cavity before inserting the scion. You want to make a very nice joint. For a scion I use a cutting of last year's growth, with three or four buds. After the scion or scions are inserted, I bring the earth firmly around the graft, leaving the top bud of the scion just at the surface, so that if this graft does not grow the cutting will."

Mr. *MILLER*'s reputation as a horticulturist seems to give weight to his opinion, fortified as it is by Mr. *WARREN*'s. Having tried it again very rudely this spring, I have endeavored to induce some of my neighbors to do so also; but one or two parties are collecting all the spare grape-cuttings in this vicinity so closely to plant, that it is difficult to get many scions to experiment with.

In grafting old grape-vines, where the stock is large below the surface, why would it not be preferable to graft several portions of the upper stock, and then bury them to the proper depth, and treat it otherwise as in root grafting? It seems to me

it would, and a portion of my experiment that form.

About the use of wax or cement, which *MILLER* especially eschews, but which Mr. *S* recommends, I should be glad to hear *WARREN*'s views through your columns, and grafting the stock above ground and then burying  
*Scottsville, N. Y., March 10, 1859.*

*MESSRS. EDITORS*:—In your March number notice a valuable article on the "culture of grape" from Mr. *Salter*; and under the heading grafting he advises the operator to make use of "waxed cloth, basswood bark or worsted yarn he will use copper wire, drawn tight and twisted with the pinchers, he will probably never use of any other course of tying. The best however, is to go to the woods and select pieces of the roots of the wild grape vine, saw the pieces of six or eight inches in length, and grafting tie as above recommended, and plant spent hot-bed, or some other good location. A number of roots will start above the tie, and several feet the first year, when, on removal original root may be sawed off just below the I have seen a single graft throw out roots nine to thirteen feet the first season. E.

*Dedham, Mass., 1859.*

## CUCUMBERS, MELONS, &amp;c.

*EDS. GENESSEE FARMER*.—My garden is arranged for the plow, cultivator, horse-hoe, &c.; every furrow drilled to run north and south. My method of raising cucumbers, melons, squashes, &c., is as follows: Plant the seeds in inverted sward and close together in the hot-bed, water every evening until the plants are four or five inches high. I choose a rich and sunny part of the garden plow out furrows a foot deep, and five to eight feet apart, as the habits of vines may require. draw in unfermented manure from the barn—wheeled from the horse and cow stable during the preceding winter—and fill the furrows full; then cover with the plow and level the ground with the rake, leaving the soil six inches deep from the manure. I then take the sward from the hot-bed and cut into pieces, leaving three or four inches in each piece, and place them four feet apart from the centre of each ridge, for cucumbers, melons and bush squash; six feet for melons, and eight feet for marrows and squashes. Each hill is then covered with a box made of half-inch lumber for the sides and a pane of glass or oiled cotton laid over the top. This is the safest remedy for the melon and ensures an early and rapid growth of the plant. They require ventilation during the summer and the boxes must be removed entirely when the weather will permit. Tepid water is used freely for a week or two, unless there are showers; then the glass is removed to admit rain when necessary. I use the one-horse cultivator once or twice a week to keep down the weeds and pulverize the soil between the ridges, and a hand hoe to loosen the soil around the plants. When the vines are vigorous I thin them frequently, cutting out the tops of the fastest runners so as to equalize them, and induce early bearing. With the same treatment, last year, I raised cucumbers very

hense quantities. During the drouth, persons complaining of their vines turning yellow, bearing no fruit, although they watered them evening. I never watered mine after the first weeks from transplanting, and the vines never yellow till "Jack Frost" blew his withering over them. I had two rows, eight rods from which I cut four bushels per week for weeks, after which I gathered upwards of thousand gherkins for pickling. The vines quite full when the frost came and destroyed. Nearly all writers are in favor of well-mannure for cucumbers and melons; but I succeeded best with unfermented manure, as described above.

R. W. S.

Stocks, C. W.

**RUST ON APPLES.**

At the last meeting of the British Pomological Society, J. G. GRAHAM, Esq., read a paper giving a full and complete account of the microscopic results of examinations of the diseased spots on apples. As the disease is quite common in this country, the following extract from Mr. G.'s paper will be read with interest.

In my first examination of the Apples you sent me, consisting of *Margil*, *Summer Nonpareil*, *Nonpareil*, *Spanish Pearmain*, *Byson* and *Golden Drop* — all affected in the same manner with indented discolored spots — I was of opinion that the injury was caused by the presence of the mycelium of some mildew, which was not developed, and the rind of the fruit in too hard and tough a state to admit the fructifying threads of the mildew to penetrate through it. In order to ascertain this point, I adopted the same method which I applied when I first observed Tobacco to be spotted like diseased Potatoes — viz., I thrust my finger nail through the skin, and thus exposed the mildew, if it were there, to come out. — In twenty-four hours the same result was obtained as that which was destroying the *Potato tubers infestans*,) was visible on that part of the fruit in full fructification.

In regard to the Apples, the process was the same; and, as they were very dry, no mildew was observed until I put them in a damp place, soon

The first is of a gelatinous color; the latter is at first white then grey, and lastly dirty green. I ought also to state that when I first received the Apples, I carefully examined the tissue beneath the spots, under the microscope, and found the mycelium of the mildew traversing the cells in all directions; and, as is usual in all such cases, the parts thus infested had become brown, being in fact killed by it; some suppose by feeding on and exhausting their proper juices. I am also of opinion, that the threads of these mildews are very short-lived, and, dying amongst the cells, communicate decay to them.

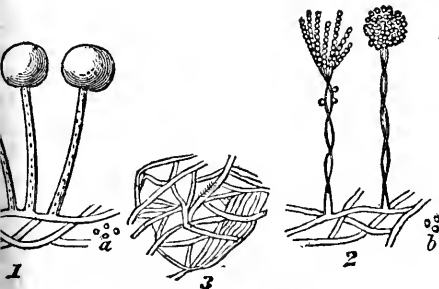
"I should also mention, that at the time I made the incision in the spots, I also picked out small portions of the Apples where there were no spots; and on these parts no mildew whatever has appeared up to the present time. I can, therefore, but draw the conclusion, that the spots are caused by the mycelium, or spawn, of the mildew above mentioned.



**IMPATIENS JERDONII.**

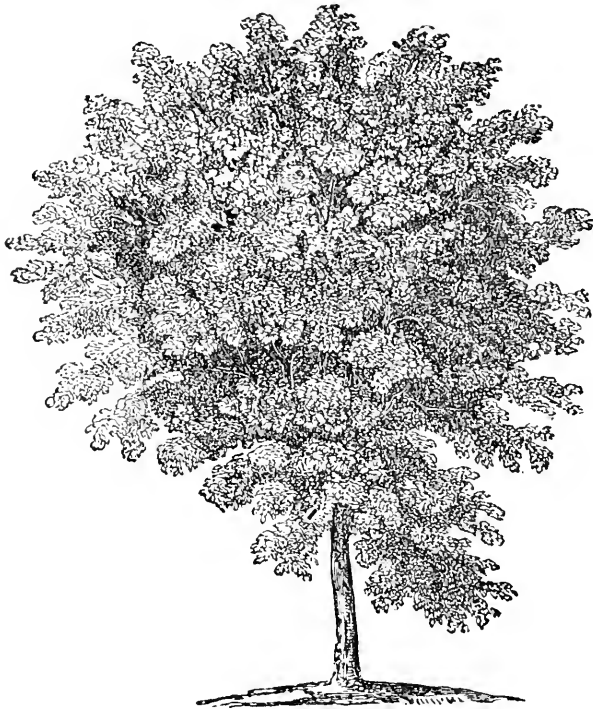
THE Balsams, to which the present species belongs, affect shady, damp localities, and the decayed mould of large forests in both hemispheres; they are annual and perennial plants, with cylindrical stalks and branches, smooth, frequently swollen at their articulations, and filled with a very abundant watery juice; the leaves are alternate or opposite, nearly always dentated, and unprovided with leaf scales.

The common Balsam, introduced into Europe at the beginning of the sixteenth century, has served as a type of this family.



1. *Mucor mucedo*. a. Its spores.  
2. *Aspergillus glaucus*. b. Its spores.  
3. Mycelium of the mildews.

of which two species sprung up — viz., *Mucor mucedo*, and *Aspergillus glaucus*, both very common moulds, of which I give you figures.



THE BLACK WALNUT—JUGLANS NIGRA.

Like the *Tropeolæ* (Capucines,) which resemble them, the Balsams present us with a remarkable variety in the color of their flowers, and the species under consideration exhibits this, in a high degree, in a mixture more curious than harmonious of green, yellow, and red.

The *Impatiens Jerdonia* is a native of the Neilgherry Hills; its stalks, which are caraceous, of a deep violet brown color, and of the size of one's little finger, and very smooth, are generally provided with joints, which render them very fragile; the edges of its leaves, which are oval, thin, and of a bright green hue, are furnished with teeth, terminating in a sort of brown or violet colored gland; the flowers spring from the summit of short, axillary peduncles, and are supported by long, straight pedicles, of a beautiful carmine red color, the tops of which are lost in the bases of the calycine leaflets. In short, the original character of the flower of the *Impatiens Jerdonia*, and its profuse crop of flowers, make it desirable, and class it in our greenhouses with the *Impatiens platypetala*, *Hookeriana*, etc. Like the latter, and the *Imp. glanduligera*, *Royleana*, *fulva*, etc., which so greatly contribute to the beauty of groups planted in the shade, it requires the same care in cultivation.—*J. Decaisne in Revue Horticole, translated for the Horticulturist.*

A CORRESPONDENT SAYS:—I have observed that when I prune apple trees in the summer, suckers seldom start from the wound; but when in spring, more or less suckers generally grow. The month of July I think is the proper time to prune; wounds then will soon heal over.

#### THE BLACK WALNUT TREE.

THERE are few more beautiful ornaments useful trees than the Black Walnut (*Juglans nigra*). Well does Dr. LINDLEY call it the "noble American Walnut." It is better appreciated in Europe than in this its native country. On the banks and islands of the Ohio river, MICHAUX has often seen trees three or four feet in diameter, and sixty or seventy feet in height; and it is not rare to find them six or seven feet in diameter. "When it stands isolated," he adds, "its branches, extending themselves horizontally great distance, spread into a spacious head, giving it a very majestic appearance." Dowdell observes: "The Black Walnut has a high claim upon the Landscape Gardener, as it is one of the grandest and most massive trees which a gardener can employ." It is admirably adapted to extensive lawns, where there is no want of room for the attainment of its full size and fair proportions. Its rapid growth and umbrageous foliage also recommend it for wide public streets and avenues.

Of the fruit of the Black Walnut, and the value of the wood, we need say nothing. The tree begins to bear when from eight to ten years of age increases its fertility. In New York the fruit is not as large or as fine flavored as in Kentucky or Ohio; but even here it is highly esteemed. The tree is easily propagated, and should be extensively planted.

## Ladies' Department.

### ORIGINAL DOMESTIC RECEIPTS.

for the Genesee Farmer by various Correspondents.]

**RHUBARB TARTS.**—Peel and slice the rhubarb, then to taste, and fix as a gooseberry tart. They are very delicious.

**TART PUDDING.**—Two spoonfuls of flour, 2/3s, one pint of cream, a little sugar, one nutmeg. Boil half an hour.

**WHEAT PUDDING.**—One quart of milk, nine or ten spoonfuls of flour, a little salt. Put in a bag and boil three-quarters of an hour.

**POTATO PUDDING.**—Two pounds of potatoes, washed and sifted, three-fourths of a pound of sugar, half pint of cream, seven eggs and nutmegs.

**PRESERVE EGGS.**—Set them away in a dry jar, standing on their ends, and turn the other way, once a week. They will keep a year fresh.

**IRISH PUDDING.**—Six eggs, one pint of milk, a little salt, four table-spoons of flour, and a little sugar. Bake one hour, and eat with sweet sauce.

**TO KEEP HAMS NICE FOR SUMMER USE.**—Tie hams securely in paper, cover closely with ashes, and keeps them sweet, and protects from all insects.

**TO MAKE HONEY.**—Take ten lbs. of sugar, dissolved in four pounds of water, two pounds of yeast. When cooling, stir in ten drops of peppermint.

**BROWN COFFEE.**—Coffee should be browned lightly, and only to a *light* chestnut brown, so when it is ground it will be lively and fly off the sides of the cup.

**RICE PUDDING.**—Quarter of a pound of rice, one pint of milk. Stir well while boiling. When nearly done add one-quarter pound of butter, same of sugar, and a little nutmeg, spice to taste. Bake one hour.

**TO MAKE APPLE PIE.**—One teaspoonful of tartaric acid, one cup of sugar, one cup of bread crumbs, one egg, one pint water, and nutmeg or any other to suit the taste. This will make three pies.

**TO MAKE WHEAT PUDDING.**—Beat well three cups of wheat, add one tea-cup of sugar, two cups of sour milk, flour to make a stiff batter, one tea-spoon of salt, a little nutmeg. Bake in a quick oven. Eat with sugar and cream.

**TO MAKE ORANGE TART.**—Squeeze two oranges and boil the juice tender, add half a tea-cup of sugar, and the pulp of the fruit, an ounce of butter, and mix to a paste. Line a shallow dish with light crust, and lay the paste of orange in it.

**TO MAKE AN EXCELLENT LINIMENT.**—Take the whites of four eggs, beaten to a froth, a wineglass of vinegar, one wineglass spirits of turpentine, and a wineglass of alcohol, beating it all the time. This liniment will be put together in the order mentioned above, and will not be thoroughly incorporated. We find it very superior in all cases of sprains, bruises, or on man or beast.

**HAIR OIL.**—Half a pint beef marrow, one-half ounce bee's wax, and a few drops of Vanilla, or other perfumery to suit.

**VINEGAR PIE.**—Take a gill of cider or vinegar, one quart of water, a tea-cup of molasses, or sugar enough to make it sweet, stir in half a dozen spoonfuls of flour, put it on the fire and let it boil. Bake with two crusts, or put the top crust on in strips if it is liked better.

**INDIAN CAKES.**—Six well beaten eggs, one quart of milk, warmed, a small lump of butter, a tea-spoon of salt, one of soda, two table-spoonfuls of sugar, one pint and one-half Indian meal. Bake in buttered tins about two inches thick. Better than sponge cake for tea.

**CONNECTICUT DOUGHNUTS.**—One quart of milk, one pint of melted lard, one pint of yeast, one and three-quarters pounds of sugar, five eggs, one nutmeg, one tea-spoonful of saleratus, one table-spoonful of salt. When wet, knead together and set in a warm place to rise.

**SPRUCE BEER.**—For three gallons, take one quart of molasses, twenty drops oil of spruce, fifteen drops oil of sasafrazz, fill the pail with hot water, mix them well together, let it stand till blood warm, then add a pint of yeast, let it remain ten or twelve hours, then bottle it. In three hours it will be fit for use.

**CURDS AND WHEY.**—Infuse a piece of rennet in a little boiling water, as for making cheese; let it stand an hour or two; then put a table-spoonful to three pints of new milk warmed. Cover with a cloth, and leave until the curd is thick. Press out and use the whey, or sweeten and use both whey and curd. This makes a very nice desert for dinner.

**LEMON PIES.**—Beat with the yolk of four eggs, two table-spoonfuls of melted butter, four of white sugar, the juice and grated rind of two lemons. Put into a rich paste and bake. Then beat the whites to a froth, adding two table-spoonfuls of grated sugar. Spread on the pies when done, put them in the oven and bake again for three minutes. The above is for two pies.

**BOILED CUSTARD.**—Flavor one quart of very rich milk, with a Vanilla bean or Lemon, and sweeten well with sugar; boil it in an iron kettle. Beat well the yolks of four eggs, if the milk is very rich; if not, use five eggs. When the milk boils, pour it upon the eggs, stirring them all the time; then put it again upon the fire, until it thickens, stir it and be very careful not to let it boil. Turn it into a pitcher until nearly cold, then pour into custard cups or glasses.

**PARSNAP WINE.**—To each gallon of water add four pounds of parsneps, washed and peeled; boil till tender; drain, but do not bruise them, for no after remedy will make the wine clear; to each gallon of the liquor add 3 pounds of loaf sugar, and one-half ounce crude tartar, and when it has cooled to the temperature of 75°, put in a little new yeast; let it stand four days in a tub, in a warm room; then turn it, and bung up when the fermentation has ceased. March and October are the best seasons for making it. It should remain twelve months in casks before it is bottled.





—Please publish in your paper what twelve Apples you consider the very best.—M. HOOPES, *Uta, Pa.*

would be very difficult to do to suit any extensive country; our own experience enables us only to this vicinity; and for other localities we depend on the various pomological and horticultural societies. For this neighborhood, we should consider the following twelve among the most valuable for orchards:—Golden Sweet, Red Astrachan, Early Harvest, Fall Pippin, Jersey Sweet, Gravenstein, Duchesse d'Angouleme, Winter—Baldwin, Rhode Island Green-an Sweet, Roxbury Russet, King of Tompkin's

catalogue of fruits for general cultivation, adopted by the American Pomological Society, is published in the *Journal* for 1859.

*Smokehouse, Smith's Cider, Formwalder, or Fuldener* spoken of by good authorities in different parts of Pennsylvania, as among the most valuable sorts of fruit.

Report last year from THOMAS M. HARVEY, of Jenkintown, Chester Co., Pa., to the American Pomological Society, the following sorts are recommended for a colony of one hundred trees of twelve sorts:

Early Harvest, 2; Jeffries, 3; Rhode Island Greening, 4; Sun Stem, 10; Townsend, 4; Holland Pippin, 4; Golden Lady, 10; Summer Rose, 2; Smokehouse, 20; Golden Russet, 10; Golden Russet of Mass., 10. Orchard of a thousand trees for marketing, he recommends: *Smokehouse, 500; Smith's Cider, 100; Formwalder, 100; Lady, 100; Golden Russet of Mass., 100; American Summer Pearmain, 25; Maiden's Blush, 25; Townsend, 25; Early Red Streak, 25.*

**WORM.—(H. R.)** The insect you describe is commonly called the canker-worm. Last year it was unusually abundant in apple orchards in this vicinity. It rises from the ground in the spring soon after the frost is out. The females have no wings, and climb slowly up the trunks of the trees; there they deposit their eggs in the leaf-branches, and among the young twigs. They hatch in the last of May, and the worms commence eating the leaves. If numerous, they will destroy all the leaves in a few days, leaving the orchard as though it had been scorched by fire. The common mode of protecting the trees from the canker-worm is to begirt the trunks with paper six or six inches wide of canvass thickly smeared with lime. It should be done immediately.

**GRASSES AND CLOVERS.—(M. P. B.)** Clovers, and what are commonly called "artificial grasses," are not, strictly speaking, grasses, and have, in fact, no kind of resemblance to grasses proper. The latter are, in all cases, plants with simple leaves, having a flat-blade, with numerous parallel veins, and a long sheath at the base, which is the leaf-stalk, and through which the stem seems to pass. Plants wanting these peculiarities are not grasses.

**POWERS.—(A. MCGILLIVRAY.)** The horse powers used by G. Westinghouse, of Schenectady, N. Y., are all in every way excellent. We are not prepared to say which is the best Horse-Power, Emery's or Melick & Co.'s. They are both good, and we have derived very general satisfaction.

**"CONDITION POWDERS."—(JOHN G. RAIN.)** The best condition powder we have ever given horses, was a compound of equal weights of sulphur, antimony, salt-petre, and powdered liquorice root. They were used by one of the most successful veterinary surgeons in England. Give a table-spoonful in meal or shorts every other day. Be careful that the horses do not take cold. We have given this compound to horses troubled with the heaves, with, we thought, decided advantage.

**GROWING WHEAT WITHOUT MANURE.—(G. B. DEARDORFF.)** We will endeavor to comply with your request for information in regard to Mr. SMITH's method of growing wheat at Lois Weedon, in some future number. We published an article on the subject in the *Genesee Farmer* for 1853.

**TO KILL ANTS.—(R. S. R.)** Mix equal parts of moistened loaf sugar and arsenic, and drop it on pieces of glass near their runs.

**INFORMATION WANTED.—**I wish to make some inquiries through your paper to be answered by your readers:

**Sheep.**—What is the most profitable breed for wool growers? Who has them and at what price? Who has good Saxons, and will speak of their merits? Of Merinos, which is the best kind? Of Spanish Merinos? At what age should ewes breed; and with good care how long will they live and breed well? How many ewes will a good, strong, healthy buck serve, say during six weeks in the fall, without injury to himself or his stock? What is the best way to manage that business and get the most use of a buck? What is the best average of 100 sheep, Spanish Merinos or Saxons, to the fleece? What is a good average for full-blood Spanish Merino or Saxon, with first-rate feed and care?

**Cattle.**—Are not short-horned Durhams as a breed tender and liable to degenerate? Is there not a good deal of humbug in pampering up these short-horns for fairs and exhibitions, with the pretence that these animals will breed anything like themselves? Will not the same expense, care, feed, judicious eye and selection of our common cattle bring as much profit to the country as what is doing in short-horns? I have always been favorable to these cattle, but prefer the truth to preconceived ideas, if those ideas be erroneous, and I still think that by the right selection, and with great care in buying, they are a splendid breed. But as matters are going, and in the hands of common people, are they the best breed? What of the Devonshires? Are they not pre-eminently hardy and likely to come out right and sure every time? I have always liked this breed, and the inclination of my mind is to like them better than ever. At what age should heifers be allowed to breed to create a first-rate herd? Bulls? For common people without much experience and opportunity of selection, is it not the best general rule to breed from comparatively large cows, from comparatively small, low, compact, hardy, active bulls, with good keep and care for the cows? Are GUINON's rules for the selection of milkers valuable and easily practicable? If so, please give the substance of them, as we can not easily get the book here in extreme Western Iowa. When a cow has difficulty in cleaning, what is the very best thing known to give her? Is there any particular feed or fare which is known or thought to induce this difficulty? At what length of time, after calving, do cows come in season? If they do not go to bull, then what are the succeeding periods? And what is the best feed for wintering calves?

Is there any horse in the world equal to the old blood-horse, the best thorough-bred four mile racers of England and America, to produce long-lived horses of active stride and power? At what age ought mares to breed to make it best for them and colt, that is if you wanted to produce the best possible horses in the long run? What is the best feeds for colts the first winter?

In bitter cold weather in the winter is it any advantage to temper cold water with a little which is warm for stock, especially young animals?

What is the most convenient arrangement for out-door buildings, say corn-barn, grain-barn, stock-barn or sheds,

hog-pen, well, &c., with reference to economy in time in doing the work of feeding, watering and caring for animals.

Whose is the best book on bees? What or whose is the best bee-hive?—J. S., *Onawa, Monona Co., Iowa.*

**HOG DISEASE IN OHIO.**—Having been a reader of your valuable paper for several years, I now take the liberty of asking you for a preventive and cure, if you know any, or the name of the disease. I had forty hogs in the fall to keep over, and I took very good care of them, feeding them on corn in the ear, and giving them an excellent, warm, dry bed, and they are in excellent order—any of them fat enough to kill for use. About five or six weeks since one died, and in a short time another, and so on, and I then observed when feeding there was one that would not eat. I turned it by itself, but it would take nothing, but stood with its mouth a little open, and its heart seemed to beat so hard that it made it all shake, even as far as the flank. It kept on as I have described, but still getting worse, for about two days, lying all the time unless I drove it up; and the last time I raised it and drove it round a little, it laid down and made a few struggles, and in about three minutes it was dead. I have lost thirteen with the same disease, and they seem to be infecting more rapidly, as there was one died last night, and I see two more sick to-day. The symptoms of them are all alike. They generally die in forty-eight hours from the time they refuse to eat. I fear I shall lose all the rest, unless a remedy can be found.—A. L. SHERLOCK, *Berlin, Holmes Co., Ohio.*

**PUNCTURES ON RASPBERRY CANES.**—Noticing, last summer, for the first time, on my raspberries and blackberries what to me was new, I would ask of you, or any of your readers, if what I describe is of common occurrence. My attention was first drawn to my raspberries, and subsequently to my blackberries, by noticing the tops of a number of the canes becoming withered and dry. On examination, I found that about four inches from the top were two rows of punctures, about one-fourth of an inch apart, encircling the entire cane, the punctures so close together as to entirely stop the flow of sap. This continued for several weeks. On afterwards examining, I found a small white maggot in the pith of the stalk, below the wound. By what is it caused, and what will be the effect if continued, and what the remedy?—O. S. CUMINGS, *Springdale, near Trenton Falls, N. Y.*

**SUGAR CANE, &c.**—Chinese Sugar Cane has been cultivated to some extent in this neighborhood the past two years, but is likely to be abandoned for want of a proper mode for making molasses from it. Will some of your readers give us, through the *Genesee Farmer*, plain and practical directions how to clarify the juice and make molasses of it.

Do you know anything of the *Imphee* or African sugar cane? Where can the seed be got. Is it better than the Chinese cane? Have any of your readers cultivated it?

Can you tell me how to save *Apricots* from being destroyed by the *Cureulio*?

If you or any of your readers will give me information on the above subjects, through the *Farmer*, I shall thankfully receive it.—ROBERT IRWIN, *Coshocton Co., Ohio.*

**COTSWOLD SHEEP.**—My Cotswold Sheep are very subject to take cold, though kept in a good, dry shed—have foul noses, and a bad cough continually. Can you or any of your correspondents tell me whether this is not characteristic of the breed; and, if so, what is an efficient remedy? I have tried pine tar pills, with an external application to the nose, also resin and sulphur; all to no effect.—J. J. S., *Westpoint, O.*

**SUGAR CANE MILLS.**—Any information through your paper about Chinese sugar cane, and mills for crushing it, will be thankfully read. A mill costing \$25 or \$30, to be worked by one horse on a sweep, would sell well, as almost every farmer would like one. The prospect now is that raising cane will become quite general.—E. D., *Forestville, Chautauque Co., N. Y.*

**OIL MILL.**—I would like to enquire of some of your numerous correspondents for the best plan to build an oil mill, and the cheapest, to be worked with one horse power. Also, whether it will pay to drive one with horse power.—AMOS A. ALBRIGHT, *South Cayuga, C. W.*

### Notices of Books, Pamphlets, &c.

We have space only to give the titles of the books received during the past month.

**LIVES OF THE QUEENS OF SCOTLAND AND ENGLAND PRINCESSES,** Connected with the Royal Succession of Britain. By AGNES STRICKLAND, author of the "Lives of the Queens of England." Vol. VII. New York: HARPER & BROTHERS. 1859. For sale by D. M. DEWEY, of this City. Price \$1.

**THREE VISITS TO MADAGASCAR,** During the Year 1854, 1856. Including a Journey to the Capital: With a Description of the Natural History of the Country and the Present Condition of the People. By the Rev. WILLIAM ELLIS, F. R. S. &c. Author of "Polynesian Researches." Illustrated by various Photographs, &c. New York: HARPER & BROTHERS. 1859. Price \$3.00. D. M. DEWEY.

**THE AMERICAN HOME GARDEN:** Being Principles and Rules for the Culture of Vegetables, Fruits, Flowering Shrubs, &c. To which are added Brief Notes on Farming with a Table of their Average Products and Chemical Analyses. By ALEXANDER WATSON, Illustrated. New York: HARPER & BROTHERS. 1859. D. M. DEWEY. Price \$1.

**FRANKWEI;** Or, The San Jacinto in the Seas of India and Japan. By WILLIAM MAXWELL WOOD, M. D. &c. Author of "Wandering Sketches in South America, &c." &c. "A Shoulder to the Wheel of Progress," &c. New York: HARPER & BROTHERS. 1859. D. M. DEWEY. Price \$1.

**BUCKLAND'S CURIOSITIES OF NATURAL HISTORY,** By FRANCIS T. BUCKLAND, M. A. From the Fourth Edition. New York: RUDD & CARLETON. 1849. Price \$1. D. M. DEWEY.

**ONWARD!** Or, The Mountain Clamberers. A Tale of 1841. By JANE ANNE WISSCOM, author of "The Vineyard &c." &c. New York: D. APPLETON & Co. 1859. D. M. DEWEY. Price 75 cents.

**TWO WAYS TO WEDLOCK.** A Novellet. (Reprinted from the *New York Home Journal*.) New York: CARLETON. 1859. Price \$1. D. M. DEWEY.

**LIFE OF JOHN H. W. HAWKINS.** Compiled by Rev. WILLIAM GEORGE HAWKINS, A. M. Boston: JEWETT & Co. 1859. Price \$1.

**THE FOSTER BROTHERS:** Being a History of the Scotch College Life of two Young Men. New York: D. APPLETON & Co. 1859. D. M. DEWEY. Price \$1.

**PASSAGES FROM MY AUTOBIOGRAPHY.** By LADY MORGAN. New York: D. APPLETON & Co. 1859. Price \$1.25.

**ADAM BEDE.** By GEORGE ELIOT, Author of "Scenes from the Life of Adam Bede." New York: HARPER & BROTHERS. 1859. Price \$1.

**ETHEL'S LOVE-LIFE.** A Novel. By MARGARET J. M. DEWEY. New York: RUDD & CARLETON. 1859. Price \$1.

**THE CULPRIT FAY.** By JOSEPH RODMAN DEAK. New York: RUDD & CARLETON. 1859. Price 50 cts. D. M. DEWEY.

Any of the above works will be sent by the publisher pre-paid by mail, (for any distance in the United States under 3000 miles,) on receipt of the price annexed.

### REVIEW OF THE MARKET

GENESEE FARMER OFFICE,  
ROCHESTER, N. Y., MARCH 21,

**FLOUR AND GRAIN.**—During the past month there has been an advance of 50@75c per bbl. in the price of and choice brands of Flour, and a relative advance in the price of good samples of Wheat. Flour of a low grade is not disposed of, as it is more liable to heat and sour. The other cause is the quality of much of it is such as to be utterly unfit for human food. An indifferent judge of the quality of Wheat, need only see it to be convinced of the truth of the above assertion, in relation to a large quantity of what is now being sold in the Western States. No process through which it can be made fit for human consumption, having the best machinery at his command, will so far redeem its quality as to make it even tolerable. It would be instructive, and somewhat amusing, to understand the rationale of the

drance. It would seem to a casual, but not altogether wise, observer, that an adequate cause, if sought after, might be found, but it is sought in vain. The demand is entirely of a local, or local and foreign, character. The exports of Flour and Grain during the six months, have not amounted to one-eighth the average for the corresponding period of time in the previous years. Almost nothing, in this line, has been done within the three months; and we see it stated in the *Mark Lane* that two vessels have been chartered in London, for the coast of France, to take in French Flour for New York, and there being a good margin for profit in the advance on the last crop, in this country, so much below an average warrant the recent large advance, or to make an attempt in Flour or Wheat, at existing prices safe? If so, is it wise, that of the many engaged in the business, none have been able to "discern the signs of the times," or an estimate of the true state of the case till near the autumn? Capital seeking employment at a low rate of interest, and the price of Flour and Wheat unusually low, offered inducements for speculative operations, if sufficient cause could be justified such a course; but the market remained dull, until some, with more temerity or less dullness than others, began to operate, others soon follow, and in a short time the market is run up beyond a safe point. An investor, now, may prudently, but the risk it would involve is greater than any person would care to run. Much depends on the peace or war, which now agitates the public mind, and the market is about equally divided. The present aspect of the market is rather in favor of Peace.

Grain generally steady, with a slight improvement. PROVISIONS.—Most articles in this line sell at an advance on quotations. In some a decline is apparent. SHEEP, AND SWINE, with various fluctuations, and as previously quoted, with a slight advance in some quality.

#### ROCHESTER MARKET.—March 22.

—Superfine, \$6.00@6.50; extra, \$7.00@7.50 to the trade; m. —Wheat, \$1.50@1.75 for white; \$1.30@1.35 for red. Barley, 72c@75c. Rye, 75c@77c. Oats, 55c by weight. @80c. —Clover, \$6. Timothy, \$2.25@2.50. Flax, \$1.50. PROVISIONS.—Mess Pork, \$17.00@18.00. Dressed hogs, \$6 1/2. Beef, 4 1/2c@5 1/2c. Hams, smoked, 9c@10c. Lard, 10c@11c. Butter, 15c@20c. Cheese, Eggs, 11c@12c. Potatoes, 85c@90c. —Live weight, 3 1/2c@5c per lb. —\$3.50@5.00 per head. —\$7@11 per ton. —40c@55c per lb. —See quotations as to the trade.

#### NEW YORK MARKET.—March 19.

—Market firm. Superfine State, \$5.50@5.80; extra, \$6.75; Michigan, Indiana, Ohio, and Iowa superfine, \$6.75; extra do, \$6.50@7.50; Ohio round-hoop, \$6.65@6.80. Flour; extras, \$6.25@7.50. Southern less active but firm, \$3.25@3.75; Brandywine, \$7; Georgetown, \$7.50; Petersburg city, \$7.25@8.25; Richmond city, \$7.40; Gallego and Haxall, \$5.50@8.00. Rye flour dull; 25 for fine and superfine. Corn meal quiet; Jersey, \$0; Brandywine, \$1.50@1.40. —Wheat firm; white, \$1.45@1.80; red Southern, \$1.35 Canada and Milwaukee club, \$1.25@1.35; Illinois and \$1.47@1.50; Chicago spring, \$1@1.10. Rye firm at \$1. Barley steady at 80c@85c. Oats quiet; Southern, 50c; western, 55c@58c; State, 55c@57c; Western and Canadian Corn—yellow Jersey and Southern, 69c@91c; mixed 85c@90c; unsound, 85c. —Clover, 10c@11c per lb. Timothy—mowed, \$2.25@2.50; un-mowed, \$2.50@2.75 per bushel. Red top, \$2.75@3.00 per bushel. —Pork heavy; new mess, \$18.80@18.37 1/2; old clear, \$21; prime, \$13.12 1/2; sour do, \$10.37 1/2@10.50. Lard—demand moderate; country mess, \$7.50@8.00; country \$8.75; Western re-packed, \$9.50@11.25; extra mess, \$11. Hams, 6 1/2c@9 1/2c. Shoulders, 6 1/2c@6 3/4c. Lard, 10c. Dressed hogs firm at 8c@8 1/2c. Butter—Ohio, 10c@15c@25c; Orange Co., 20c@25c. Cheese, 9c@11c. CATTLE—First quality, 11c@11 1/2c; medium, 9c@10c; 8c@9c; extra, 12c@12 1/2c. —\$4.50@5.50 per head.

HOGS—6 1/2c@6 3/4c per lb. live weight. WOOL—Demand limited, stock light, and prices firm. Half to full-blood fleeces, 45c@65c; No. 1 city and extra country Saxony, 35c@56c; California, 15c@30c; choice Saxony held at 70c@75c. March 22.—Pork 25c lower. In other respects, no material change.

#### PHILADELPHIA MARKET.—March 19.

FLOUR—Market dull and declining; superfine, \$5.50@6.60; fancy and extra, \$6.75@8.50. Corn meal firm at \$3.75. Rye flour, \$4.37 1/2@4.50. GRAIN—Wheat scarce; white, \$1.75@1.80; red \$1.60@1.62. Rye, 90c. Corn steady at 85c@86c. Oats, 55c in store. Barley dull. PROVISIONS—Market inactive. SEEDS—Clover, \$6.25@6.50, with very little demand.

#### BUFFALO MARKET.—March 22.

FLOUR—Demand moderate for the home trade; superfine, \$5.50@6; extra, fair to good, \$6.25@6.75; double extras, \$6.75@7.25. GRAIN—Wheat, \$1.38@1.50 for white; red winter, \$1.20@1.25. Corn, 75c@80c for new; old do, 85c@90c. Rye, 85c@90c. Barley, 70c@85c for inferior to good. SEEDS—Market declining. Clover, \$5.62 1/2@5.75. Timothy, \$1.75@2.37 1/2 for ordinary to choice. PROVISIONS—Nothing doing.

#### CHICAGO MARKET.—March 17.

FLOUR—Market quiet but firm; spring superfine on the track, \$5; extra, \$5.75 delivered. GRAIN—Wheat—No. 1 red, \$1.30 in store; No. 2 do, \$1.15; spring, 95c@1.10 for the range. Corn, 74c@75c. Barley, 50c@60c in store and on the track. Oats, 55c delivered. Rye steady; 90c@92c at depot. SEEDS—Clover, \$6. Timothy, \$1.95@2. PROVISIONS—Mess Pork, \$16.75@17.25; clear, \$18.25. Hams, 9 1/2c. Sugar-cured, 10 1/2c. Lard, 10 1/2c@11 1/2c. Mess Beef, 9c@10c.

#### CINCINNATI MARKET.—March 19.

FLOUR—Demand fair at \$5.75@6 for superfine and extra. GRAIN—Wheat active at full prices. White, \$1.45@1.50; inferior to good red, \$1.10@1.33. Corn firm at 77@79c. Barley 70c in store and on the track. Rye dull at 90c. Oats 62@64c and firm. SEEDS—Clover \$6@6.25. Timothy \$2@2.25. Flax firm at \$1.50. PROVISIONS—Mess Pork firm at \$18. Lard 11 1/2c@11 3/4c. Bacon 5 1/2c@9 1/2c. Hams 8 1/2c@9 1/2c; sugar-cured do. 11 1/2c. Shoulders 6 1/2c@7 1/2c. Butter in good demand at 20c@30c for good to choice. CATTLE—Beef cattle in large supply and market dull. Prices range from \$3.50 to \$5 per cwt. gross. HOGS—Supply light. \$5.50@6.75 per cwt. gross.

#### TORONTO MARKET.—March 19.

FLOUR—Market inactive; superfine, \$6.25@6.50 fancy and extra, \$6.75@7.25. GRAIN—Fall Wheat, \$1.55@1.63 for good; inferior to medium, \$1.40@1.45; spring, \$1.35@1.40. Barley, \$1 and sought after. Rye, 95c@1. Peas 95c@1.10. Oats 55c@58c. PROVISIONS—Butter, 20c@25c. Potatoes, 65c@70c.

#### LONDON MARKET.—February 26.

FLOUR—Market for flour inactive. American, sour, \$1.30@1.50; sweet, —. GRAIN—Wheat dull; best qualities only moving slowly at former rates. American white, \$1.20@1.44; red do., \$1.25@1.38. Indian corn, —. SEEDS—Demand active. Red clover, 13c@15c per lb.; white do., 16c@20c. Linseed, \$1.92 per bush. for sowing and \$1.62@1.74 for crushing. WOOL—Per lb. for the range, 25c@65c.

#### LIVERPOOL MARKET.—February 25.

FLOUR—Market very inactive. Western canal, \$4.68@5.16; Baltimore and Philadelphia, \$5.16@5.40; Ohio, \$5.64@6.50; Canadian, \$4.68@6.20; sour, \$4.30@4.63. GRAIN—American white wheat, \$1.26@1.56; red and mixed do., \$1@1.38 per bush. of 60 lbs. Indian corn, white, \$1@1.04; yellow do., 88c@90c; mixed, 84c@86c per bush. of 60 lbs. SEEDS—Red clover, 12c@14c per lb. Linseed, \$1.47 per bush. WOOL—For the range, 12c@40c per lb.

#### BRIGHTON CATTLE MARKET.—March 17.

At market, 950 Beves, 90 Stores, 3000 Sheep and Lambs, 1200 Swine. PRICES—Market Beef—Extra, \$3.75@4.00; First quality, \$3.75; Second, \$6.50; Third, \$5.00. Milch Cows—\$39@40; Common, \$19@20. Veal Calves—\$3@3.60. Yearlings—none. Two Years old—\$26@31. Three Years old—\$26@31. Hides—1 1/2c@2c per lb. Calf Skins—14c@15c per lb. Titlow—7 1/2c@8c. Sheep and Lambs—\$1.75@2.75; extra, \$3.00@3.00. Pels—\$1.50@1.75. Swine—Pigs, 5 1/2c@6c; retail, 6c@7 1/2c.

**ADVERTISEMENTS,**

To secure insertion in the FARMER, must be received as early as the 10th of the previous month, and be of such a character as to be of interest to farmers. TERMS—Two Dollars for every hundred words, each insertion, PAYABLE IN ADVANCE.

**JAPAN PIE MELON**—100 seeds for 30 cents.  
ap1t J. J. WYCHE, Henderson, N. C.

**NOTICE**—Virginia Farms for sale. Apply to  
ap31\* CORNELIUS GUARD, Dowdalls Office, Va.

**POLAND OATS**—\$1.25 per bushel or \$3 per barrel.  
ap11\* P. SUTTON, Ransom, Luzerne county, Pa.

**JOHN DORE**, A lawyer and Counsellor at Law, Scottsville,  
Monroe county, N. Y., will give prompt attention to any  
business in Western New York. ap1t

**FOR SALE**—A small quantity of Prince Albert Potatoes.  
Price \$5 per barrel, delivered aboard of cars. Warranted  
genuine. ap1\* D. NORTON, JR., Pittstown, Rens. Co., N. Y.

**HARDY NATIVE EVERGREENS.**—JOHN W. ADAMS,  
Portland, Maine, continues to supply Arbor Vitae and other  
Evergreens, in quantities, at his usual prices. Catalogue sent  
on application. ap1t

**FOR EARLY PARIS CAULIFLOWER** and Premium Flat  
Dutch Cabbage, the best varieties known, at 12½ cents each  
per package, address RURAL EMPIRE CLUB,  
April—1t Macedon Center, Wayne county, N. Y.

**PERUVIAN GUANO.**—No. 1 Peruvian Guano, Government  
brand and weight, direct from Peruvian agents, in quantities  
to suit purchasers, at the lowest market price.  
March, 1859.—3t A. LONGETT, 34 Cliff St., New York.

**PURE HUNGARIAN GRASS SEED**—"Honey Blade" and  
all—and Georgia Chinese Sugar Cane Seed—in samples of  
two or four ounces each, gratuitous. Inclose stamps to pay postage,  
and address RURAL EMPIRE CLUB,  
April—1t Macedon Center, Wayne county, N. Y.

**RUSSIA OR BASS MATTS**—Selected expressly for budding  
and tying. GUNNY BAGS, TWINES, &c., suitable for  
Nursery purposes, for sale in lots to suit,  
D. W. MANVARIK, Importer,  
August, 1858.—1y\* 245 Front Street, New York.

**FOR SALE**—My thorough-bred Durham Bull "North Star,"  
(deep red) calved March, 1856. Dairymen wishing to im-  
prove their stock will do well to call and examine said bull, as he  
is descended from a long line of deep milkers. Inquire of the  
subscriber. ap1\* O. S. CUMINGS, Trenton Falls, N. Y.

**THE SWEET POTATO SUCCESSFULLY CULTIVATED**  
IN THE NORTH.—Statements from those who grew them,  
and information relative to procuring plants and seed, and propaga-  
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Gooseberries, Raspberries, Strawberries, Shrubs, Roses,  
Peonies, Dahlias, Greenhouse and Bedding Plants, &c., at very  
reasonable prices. Descriptive Catalogues furnished on applica-  
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**GRAPES BY MAIL**—Diana, Rebecca, Northern Muscadine  
Concord, Hartford Prolifre, King, Tokalon, Child's Superb,  
and forty-six other sorts of hardy native grape vines for sale.  
Well-rooted plants can be prepared for planting, and sent by  
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of one dollar each. Delaware and Logan vines at three dollars  
each. Address C. P. BISSELL & SALTER,  
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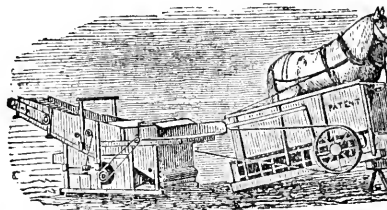
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**Horse Powers, Threshing Machines**

MADE BY G. WESTINGHOUSE & Co.,  
SCHENECTADY, N. Y.

First Premiums at the State Fairs of New York  
Michigan in 1856, New York and New Jersey  
1857, and New York in 1858.



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These are made to run still and easy, by having it peculiarly constructed; and all danger to the team by its gearing fly off, when in motion, put away, by having it so that it can not work loose and come off when in motion.  
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Lever Iron Powers for from 4 to 8 Horses.

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**Overshot Threshers with Vibrating Separator Combined with a Winnower.**

These Threshers have an arrangement patented by us, which effectually prevents the grain and dust from flying into the face, which removes the principal objection to Overshot Threshers. The cylinders are made strong and heavy, having the spikes securely fastened by a screw and nut inside, and perfectly balanced before leaving the shop, by being run perfectly still at a high speed, on a light frame.

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Besides the above, we make machines for hulling grain, or without a Cleaner attached; Wood Saws, Drag, &c. Also a Butter Worker, invented by George F. Fisher, which is by the Shakers said to be an excellent machine for butter.

**PRICES.**

Two-Horse Power Thresher and Separator (26-inch)	.....
Two-Horse Power, Thresher and Separator (30-inch)	.....
One-Horse Power, Thresher and Separator,.....	.....
Three-Horse Power,.....	.....
Two-Horse Power,.....	.....
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Power, with Sweeps,.....	115
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her and Winnow, (for Two-Horse Power),.....	125
Thresher and Winnow, with Tailing Elevator for Three Horse Endless Chain or Lever Power,.....	145
her and Separator, (26 inch Cylinder),.....	45
her and Separator, (30 inch Cylinder),.....	50
Machine with Cleaner,.....	80
Machine without Cleaner,.....	40
ar Wood Saw, (24 inch Saw, Railway Table),.....	47
ar Wood Saw, (24 inch Saw, Slide Table),.....	37
Saw, for cutting logs,.....	22
Power, for Churning,.....	35
's Patent Governor,.....	8
's Patent Governor, in connection with Power,.....	5
Butter Worker,.....	\$10 and 12
Belling (Rubber) for lever power, 16 to 20 cents per foot. The above machines we manufacture in a substantial and manlike manner, and warrant them to suit those purchasing a fair trial, and after we or our agents shall have had an op- portunity to correct anything that may cause dissatisfaction, or they be returned to us, and the pay given will be refunded. Fur- ther information will be given upon application to the subscribers. Communications will be promptly attended to, and orders received immediate attention. G. WESTINGHOUSE & CO. 1115-9-11.	

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JOHN S. HAYWARD.

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March, 1859.—2t

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| Dwarf Cherry trees;             | Wilson's Albany Strawberry,    |
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| Concord " "                     | Shrubs;                        |
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| All other House AND HARDY       | Scotch Pine, " "               |
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| Dorchester " "                  | Hemlock for Hedges.            |
| Brinckle's Orange Raspberry;    |                                |

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**Of proper Age for forming Vineyards,**

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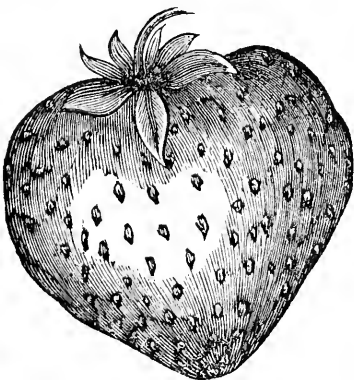
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**THE BEST YET INTRODUCED.**

The attention of amateurs and growers of fruit for market is again called to this Strawberry. All that its friends have to claim for it has been more than fulfilled, and testimony without end could be produced to attest its superiority over other sorts.

The following, making a list of advantages all of which no other berry can claim, constitute its chief points of excellence, and are confidently asked to verify them.

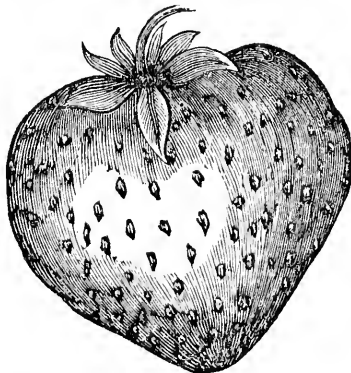
The plant is very vigorous and perfectly hardy. It is as productive as any other variety, "Wilson's Albany" excepted. The fruit is borne in large clusters—more than 20 berries being frequently gathered from a single stem.

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It takes the first premiums wherever exhibited. See reports of various horticultural societies. Plants in any quantity desired may be obtained pure and strong from the grounds where it originated. Packages are put up to go to any part of the United States by mail or express. Price, \$2 per hundred, \$15 per thousand.

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March, 1859.—21

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TRICKS OF HORSE DEALERS!!

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Catalogues of Pedigrees may be had after the 10th day of March, at the offices of the American Agriculturist, New York; Country Gentleman, Albany, Ohio Farmer, Cleveland, O; Cultivator, and of the subscriber. SAMUEL T. TABB  
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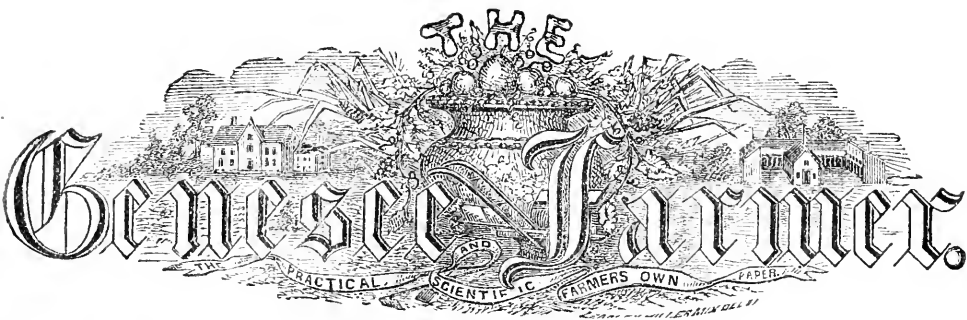
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JANUARY 1, 1859.

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**CULTIVATION OF INDIAN CORN.**

OF the importance of Indian corn to the American farmer, nothing need be said. It is of more value even, in a national point of view, than wheat. No cereal cultivated in temperate latitudes affords per acre so much nutritious food for man and beast. In one sense, too, it is a "fallow crop," as it affords an opportunity of cleaning the land by the use of the horse-hoe while growing. On the rich, new lands of the West, we may apply to corn what has been well said of the turnip in Great Britain—"It is the sheet anchor of our agriculture." We fear, however, that it differs from the turnip in one very important respect. Its growth does not increase the amount of nitrogen or ammonia on the farm. It is a crop for rich land—land that is too rich, too low, and too loose for wheat. It will flourish on the best wheat land; but wheat will not succeed well on the best corn land. To grow corn on land that will produce good wheat, is not, as a general rule, to be commended.

We have said that corn will succeed on land too low for wheat. This is true; but corn requires a dry soil. It is a mistake to suppose that all high land is dry and all low land wet. Mr. SWAN, near Geneva, N. Y., who has laid over fifty miles of drain-tiles on his farm, found that the highest parts of his farm required as much again draining as the lower portions. On low land, a few open ditches are often sufficient to carry off all the water; but on a springy hill-side, thorough underdraining is necessary.

Land for corn must be dry. We recollect walking through a magnificent field of corn on the thoroughly underdrained farm of our friend JOHN JOHNSTON. One of the underdrains was choked up, and *there the crop was a failure*. Corn delights in a loose, dry, warm soil. If it is surcharged with water, all the sunshine of our hottest summers cannot make it warm, and all the manure that can be put on it will not make the corn yield a maximum crop. In passing along the various railroads, we

have often been saddened to see thousands of acres of land planted to corn which, by a little underdraining, would have produced magnificent crops of this grandest of cereals, but which presented a miserable spectacle of yellow, sickly, stunted, half-starved plants, struggling for very life. We have ever been willing to apologize for the shortcomings of American farmers. We know the difficulties under which many of them labor. We *do* believe them to be, as a whole, "intelligent and enterprising." But these sickly corn fields are well calculated to create a very different impression. We have frequently to repeat the German proverb—"To know is not to be able." These farmers know how to raise good corn, but they are not always able to put in practice improved methods of cultivation. Many, however, might do better than they do. The country is in an embarrassed condition. Willing hands can not find labor. Good crops alone can save us from still greater poverty and suffering. One good harvest would set the wheels of trade and manufacturing industry in motion, and usher in a gladsome period of national prosperity. But it is vain to hope for good crops without good cultivation.

Farmers know how to raise good corn—know how to plant and cultivate. We can do little except to urge upon them, as a patriotic duty, the necessity of putting forth their best efforts the coming season. Our cities and villages are thronged with idle hands; set them to work. Do what you can toward draining the land. Plow it well, and prepare a good seed-bed. Mark out the land both ways, so as to plant in straight rows, and then use the cultivator freely. Do not suffer a weed to grow and rob the corn of food and moisture. Constant stirring of the soil decomposes its organic matter and renders available the food of plants lying latent in it; it enables it to attract ammonia and to condense moisture from the atmosphere. While it furnishes a loose and warm bed for the roots to grow in.

We have spent considerable time and money in experimenting with the various fertilizers for Indian corn. We know the importance of the subject. But we are satisfied that, for the country at large, *good plowing, proper preparation of the land, early planting, and good and thorough after-culture*, are of far greater importance. Throughout the vast corn-growing region of America, if we can remove stagnant water, prepare the land properly, plant in good season, and use the horse-hoe freely, the soil in the majority of cases is rich enough to produce fair and remunerative crops of corn. Still, unlike wheat and other cereals, it is impossible to make land too rich for corn; and it should be borne in mind that it costs no more to plant and cultivate a crop of corn that will yield sixty bushels per acre, than one that yields only thirty bushels. Of course, the most profitable land for corn is that which is naturally rich—too rich for wheat; but, in the New England States, very profitable crops are raised on poor soil by the aid of heavy manuring. LEVI BARTLETT says: "Of thirty-five crops of Indian corn offered for premium in Massachusetts, the average profit over all expenses exceeded \$51 per acre." It is the opinion of many good farmers, that manure is more profitably applied to corn than to any other crop. An excellent farmer in this neighborhood thinks the cheapest way to raise corn is on clover sod. He lets the clover grow as long as possible in the spring, and then turns it under just before planting the corn. The clover furnishes manure, and he says the worms also feed on it and seldom injure the corn. A handful of plaster scattered on the hill before the first hoeing, is generally considered profitable in this section.

**SHEEP POISONED BY A CHEMICAL WASH.**—Last year, an English farmer dipped his sheep, after shearing, in a chemical solution, purchased of a chemist at Berwick. The sheep were turned into a large grass field. Heavy rains ensued, and washed the solution from the sheep on to the grass. This poisoned grass was eaten by the sheep, and also by an ox and a donkey. Both the latter and 700 of the former died. The farmer sued the chemist who sold the wash. A great deal of scientific evidence was adduced on both sides. The jury returned a verdict for plaintiff—damages £1,400, or \$7,200.

**POTATOES AND PLASTER.**—When seed potatoes are cut, it is well to roll them in plaster. We know farmers who think this one of the best means of preventing the rot. If smeared with tar water and then dried with plaster—as seed corn is usually treated—so much the better.

#### CULTIVATION OF BUCKWHEAT.

It has been said that buckwheat occupies the same position among grains as the donkey doe among animals—*useful, but not popular*. It will grow on the poorest of sandy soils; can be sown later than any other grain; and is one of the best crops for cleaning the land and for killing wire worms and other injurious grubs. It has been extensively used for plowing in as a manure. But though it has proved beneficial for this purpose, it is not as good as many other crops that might be used—such as white lupin, spurry, red clover, &c.

In clearing off poor and hilly land, buckwheat is admirable for the first crop. We have seen excellent crops on such land in New England, where apparently no other crop would thrive. On such land, however, it is exceedingly grateful for manure. On the farm of Mr. HENRY SABIN, of Le Mass., we saw a crop of buckwheat on a rough hill-side, where half the field had been top-dressed with 100 lbs. of Peruvian guano per acre; and on this half the crop was at least double what it was on the other half, where no guano was used. An experienced farmer says, "barn-yard manure, whether green or rotted, ashes, lime, and plaster all seem to produce a wonderful effect when applied to this crop."

Buckwheat is often sown too early. When too early, the hot sun is apt to blast the flowers. The middle of June, in this section, is considered the best time to sow; though, in New England, good crops are often obtained when sown as late as the 4th of July. In sections where there is danger of frosty nights early in the fall, it must be sown early, as a slight frost often destroys the crop. We must endeavor to steer between the two dangers—blasting of the flowers in the summer, when sown early, and the destruction of the crop by frost in the fall when sown late. It succeeds well sown on clover or grass sod. Formerly, it was considered best to break up the land in the spring, and cultivate and harrow it a few times before sowing; but latterly the practice is to pasture the land, and break it up immediately before sowing. From three pecks to a bushel is the usual quantity of seed.

Of the uses of buckwheat, we need not speak. Everybody likes buckwheat cakes on a cold winter's morning. It is good food for poultry. Hogs thrive upon and are fond of it. When crushed, it is good feed for horses—more nutritious, it is said than oats. It is good for milk cows, increasing the quantity and richness of the milk. Bees will travel considerable distance to find a field of buckwheat.

heat in flower, though it is said the honey is not so good as from clover, &c.

There are several varieties of buckwheat, but the one commonly cultivated (*Polygonum fagopyrum*) is probably the best. We annex a cut of the plant in flower.



BUCKWHEAT.

We throw out these hasty remarks this month in order to elicit the experience of our correspondents in time for the June number. Let us hear from you early.

**SOWING OATS WITHOUT PLOWING.**—Mr. S. H. McCONNELL, of Chester county, Pa., writes us that he has practiced sowing oats on corn ground without plowing, and finds the practice very advantageous. The oats can be sown earlier in the spring than if you have to wait till the ground is in proper condition to plow. Last year, when the oat crop in his section was nearly a total failure, he had fifty bushels per acre from oats sown early on unplowed land, and merely cultivated in and then rolled.

### DOES IT PAY TO WASH SHEEP?

A WRITER in the last number of the *American Stock Journal* thinks the practice of washing sheep should be given up, for the following reasons:

*First*, It is of no conceivable advantage to the sheep; but, on the contrary, often proves exceedingly injurious. Severe colds and coughs almost always break out in the flock immediately after washing, and often lay the foundation of other and more serious disorders.

*Second*, Nothing is saved to the manufacturer by the washing; for washed and unwashed wools are alike subjected to the same cleansing process.

*Third*, If sheep are washed, they must necessarily carry their fleeces well into hot weather, which is very uncomfortable and unnatural.

*Fourth*, Much wool is lost by being pulled out by bushes and briars in the pastures, and by the slivers of the fences. There is also considerable loss from the legs and bellies of the sucking ewes.

He thinks, "from several years' experience in shearing sheep early in an *unwashed* state," that it is conducive to their health. "The proper time for shearing," he says, "is before the sheep go to grass in the spring. They should be well sheltered for some ten or fifteen days after the wool is taken off; after which time no storm will injure sheep that are in good flesh. Every wool-grower should have comfortable sheds for his sheep during the winter; and with them there is no danger in shearing as early as the first of May in New England, and much earlier in the South and West."

This question is worthy of consideration. That the health of sheep often suffers from careless washing, there can be no doubt. The sheep are sometimes driven three or four miles in a hot sun, and, while prostrated by heat, are plunged into cold water. Such a practice must be injurious. On the other hand, sheep can be washed without injury to their health. They should not be washed till the water is warm enough to bathe in comfortably. Then, if the sheep have not been hastily driven, they will not suffer by the process.

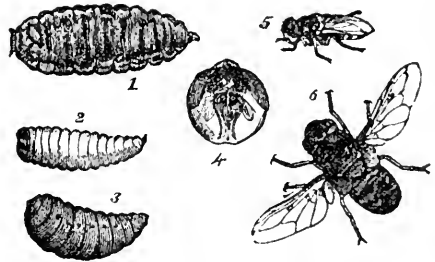
The principal reason for washing sheep is to remove impurities and reduce the wool to a more general standard. True, it has to be washed over again by the manufacturers; but if it was not washed at all on the backs of the sheep, there would be much less uniformity in regard to the impurities than when washed. Flocks that had been carelessly wintered would afford dirtier wool than those properly managed, and the good flockmasters would suffer for the carelessness of their

neighbors. The buyers would adopt a general standard, and they would make the farmers suffer for the increased risk incurred in buying dirty wool. Good sheep-breeders now complain, and justly, that there is not enough difference made by buyers in the price of fine and coarse wool; and it seems to us if sheep were not washed, the buyers would discriminate even less in their favor. The interests of wool-growers and wool-buyers are to some extent identical. Both can judge pretty accurately of the quality and value of a lot of wool; but it would be difficult to estimate the amount of impurities in unwashed wool, and the buyer would make the farmer pay for the increased risk. It is precisely the same in regard to cleaning wheat. A farmer who sells his wheat in a foul state may, for once, get more for the unwinnowed mass than for the smaller quantity of good wheat it contains; but in the end the farmers suffer from such carelessness. It seems to us such would be the case in regard to this question of washing sheep. An eminent woolen-manufacturer, of Lowell, Mass., says: "The cheating practice of selling wool unwashed is short-sighted, inasmuch as the 'clean thing' brings a price proportionate. We always fix the price per lb. by the quantity of scoured wool the fleeces will yield. In our purchases, we frequently make a difference of five cents per lb. in precisely similar qualities." This advance is amply sufficient to compensate for the time and labor required to wash the sheep. We hope some of our sheep-farmers will put the question to a test this season.

Sheep-washing is usually done about the last week in May, in the Northern and Western States and in Canada. The rule should be to wait till warm weather has set in; otherwise the sheep may suffer, and perhaps many perish from cold and exposure. The best place to wash sheep is in a running stream of pure water, with a clean bottom. The following method is familiar to many of our readers. The stream may be dammed up say three or four feet high. At the lower part of the dam place a couple of box troughs, open at the top, some eight or ten feet long, across the end of which place a piece of board with an upright stick nailed to it for a handle. The board slides in a groove, and is raised or lowered at pleasure, to allow the water to escape through the troughs. Boards are laid underneath the lower ends of the troughs for the washers to stand on. The sheep are confined in a yard close by, made of rails or hurdles. After the tags have been removed from the sheep with a pair of shears, they are handed, one at a time, to

the washers, who hold them under the end of the trough, turning them about to receive the full benefit of the falling water. If the fall of water is considerable—say from two to six feet—a couple of turns and a good squeeze of the wool all round will be sufficient to remove all impurities.

After washing, the sheep should be turned into a clean pasture, and allowed to remain at least a week before shearing, to enable the wool to acquire enough yolk or oil to confer that softness and elasticity so much prized by the manufacturers, and which also adds to the weight of the fleece.



#### GRUBS IN THE HEADS OF SHEEP.

This disease, which is sometimes very troublesome, is caused by an insect (*Estrus ovis*) which is very similar to the horse-bot or gad-fly (*Estrus equus*). It deposits its eggs about August, in the nostrils of the sheep. By the warmth and moisture of the parts, they are almost immediately hatched, and the little maggots (fig. 2) crawl up the nose and find their way to the frontal cavities of the head. In the act of passing up the nose, they seem to give great annoyance to the sheep, which run about furiously, seeming almost mad. Here they remain, feeding on the mucus secreted by the nostrils, till the following summer, by which time the grubs are an inch long (fig. 1). At some time between the middle of April and the end of July, these larvae attain their full growth, and seek to escape from their prison. They give great annoyance to the sheep at this time, causing them to continually stamp their feet and sneeze violently. After leaving the head of the sheep, they enter the ground, and become hard, brown pupa (fig. 3). From these the flies emerge in from forty to sixty days, and may be seen on the rails and fences in the neighborhood of a flock of sheep till September, and they may then be easily destroyed. The fly (fig. 5—magnified, fig. 6.) is smaller than the size of the larvæ would indicate, and is of a brownish tint, with five black rings on the back. The head of the fly (fig. 4) is large in size, and of a yellowish

hue. The wings almost cover the body, and are prettily striped and veined.

The popular theory that the grub causes death by boring through the walls of the brain, is absurd. The experiments of VALISNERI go to show that the *Estrus ovis* never eats; and this is the now received opinion.

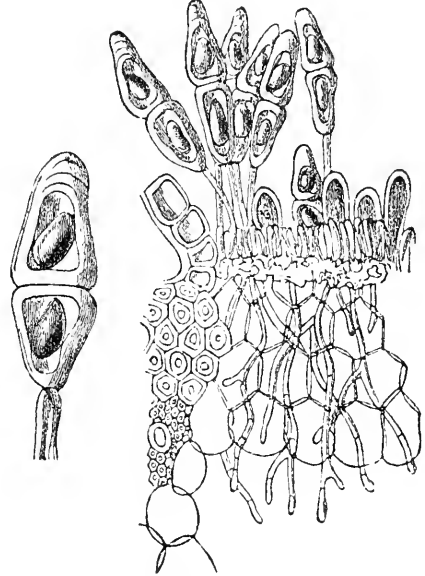
Few sheep are exempt from the presence of these grubs, and they may, and probably do, add to the irritation of the animal when affected with catarrh. But it is the fly that produces the evil ascribed to this insect, by the annoyance it causes the sheep while endeavoring to form a lodgement for its eggs, in the warm weather of summer.

The best preventive of the attacks of this insect is to thoroughly tar the noses of the sheep in the early part of summer, and to mix a little tar with their salt occasionally. Tobacco smoke, when forced into the nostrils of the sheep, will cause the worms to drop out and thus perish. Or, take four ounces of Scotch snuff, and pour over it a quart of boiling water; stir it well; and when cold, take a syringe and inject about a tablespoonful up each nostril. The sheep should be placed on its back, with its head on the ground. Force the mixture as much as possible into the cavities of the head, keeping the point of the syringe up for this purpose, or the liquid will run into the throat. It will make the sheep very drunk, but no danger need be apprehended.

#### WHEAT MILDEW OR RUST.

This disease produced even greater injury to the wheat crop of portions of the United States and Canada, last year, than that terrible little insect the midge or weevil. We have no remedy to offer for either the midge or the mildew. One thing, however, is certain—the drier we can make the soil, and the earlier we can bring the crop to maturity, the less danger is there of injury. Under-draining, good summer-fallows, appropriate manuring, and sowing early varieties of wheat, will be found the best methods of mitigating the injurious effects of the mildew as well as of the midge. Land that abounds in organic matter, and which produces an excess of straw, is favorable to mildew. In the majority of seasons, it is poor policy to sow low, rich land, to wheat. We should plant such land with corn, or lay it down in meadow, and use the produce for making manure to be used on the dry, upland portions of the farm. Sow wheat only on the best land, cultivate and manure it as well as possible; and it will be found that a fewer number of acres, properly managed, will yield more wheat,

or at all events more profit, than the too prevalent practice of sowing a large breadth, irrespective of its adaptation or culture.



WHEAT MILDEW.

Wheat mildew or rust is due to the attack of a parasitic fungus, a cut of which, greatly magnified, we annex. There are few wheat crops, be the season what it may, in which mildew does not exist; but it is only when atmospheric circumstances are favorable that its growth is so rapid as to be very injurious. We can not control these climatic circumstances. All we can do is to avoid sowing on low land and in situations favorable to the spread of mildew.

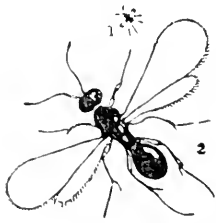
The following plan is said to have been adopted with considerable advantage:

In the morning, while the dew is still on the ground, two men start to the field with a piece of stout twine or a small rope; each takes hold of one end, and, taking their stations in the adjoining furrows, they walk together across the field, drawing the string over the heads of the wheat, causing them to bend and spring up again, thus shaking off all moisture on the stalk. It is necessary to watch the weather after the wheat commences to blossom, and repeat the operation every time danger is apprehended from the appearance of a heavy dew or shower followed by a still atmosphere and strong sunshine, till the grain is out of the milk, when all danger of rust may be considered over.

WILL MARES PRODUCE COLTS AFTER MULES?—Several correspondents give us some facts which prove that they will.



### THE INSECT WHICH DESTROYS THE WHEAT-MIDGE



THERE is an invaluable little insect, called *Platygaster tipulæ*, whose province is to feed upon and destroy the wheat-midge (*Cecidomyia tritici*). It is sometimes very abundant in England; but, according to Dr. Fitch, entomologist to the New York State Agricultural Society, it is not known in this country. The wheat-midge has been imported here, but not the parasite designed by nature to keep it in check. The Doctor has made efforts to import this parasite, and we hope will be successful.

In England, this parasite frequents grasses and wheat in June, July, and August, when the females are seen flying about or running over the ears to deposit a single egg in each of the midge larvæ. She is shining pitch color, with longish, ten-jointed horns, a little clubbed and flail-shaped; head globose; eyes lateral; trunk oval; body small, obovate, narrowed at the base, with a long curved oviduct concealed in the belly; four wings, transparent, without nervures, superior ones very large; legs strong, bright ochreous; thighs and shanks clubbed; feet long, slender, and five-jointed. Expands  $1\frac{1}{2}$  line. We annex a cut (1, natural size; 2, magnified.)

### REARING CALVES.

WE have received several letters from esteemed correspondents, on this subject, all agreeing that early calves are the most thrifty and the best to raise. We know a thrifty Scotch farmer, now residing in Canada, who raises the biggest and fattest calves for the butcher, without new milk. He gives them well boiled oatmeal porridge, with just enough skim milk stirred in to enable the calves to drink it.

An experienced farmer of Niagara county, N. Y., says: "Undoubtedly the best mode of raising calves would be to allow them to run with the cows; but this method is too expensive for general adoption." He recommends new milk for the first few days, after which they can have skim milk with a little meal stirred into it, gradually increasing the quantity of meal as the calf grows older, keeping the calf in good pasture. The meal may be of oats and barley or buckwheat, or all three, and should be kept up till winter.

Another correspondent, writing from Vernon, Iowa, recommends giving calves milk, and porridge

made of middlings, boiled, with the addition of an egg to each mess, and plenty of good tender grass.

Another, from Jefferson county, N. Y., recommends that after two weeks old the calf should be fed with coagulated milk three times a day through the summer, and says the calves will be as large and fat as if allowed to run with the cow.

Another, from Pennsylvania, recommends, after three weeks old, sour milk, with bran or corn meal mixed with it; also keeping the calves in a dark stable during the hot days of summer.

### ARE AMERICAN FARMERS INTELLIGENT?

EDS. GENESEE FARMER:—Two weeks ago, I was on a tour through a part of Cayuga county, and will endeavor to tell you about matters and things so far as I saw there.

I passed a field there last September, (a plowed field,) on which men were spreading rotted manure made by cattle or sheep, or by both. I then thought the owner was preparing for a good wheat crop. When I passed this time, I saw he had only manured part of the field. On the part manured the wheat is strong, of fine color, and will undoubtedly make a fine crop; while on the unmanured part I could see none alive from the road; so it is either dead or nearly so. As a good deal of the manure was on the surface, I concluded it had been harrowed in with the seed. Now there is neither theory, science, nor agricultural chemistry in this, but plain, practical common sense; and as farmers pass that field daily, one would suppose men of intelligence would manure in the same manner. I found the wheat in that county looking pale and yellow, and altogether worse than it does in this county. Whether it is owing to it being later in that county, or lack of manure, or owing to the soil, I don't know; but there is some cause for ours looking so much better than theirs. Yet I saw many underdrains discharging into the ditches along the highways.

I was in a number of their cattle-yards, and in only one of them did I see anything like intelligence (enterprise is out of the question) in keeping their stock, only one yard that I saw being littered. In all the others the cattle were loaded with dung—at least all those parts that came in contact with it when they were compelled to lie down; and in not a single yard did I see a box or rack of any kind to put their fodder in. True, as the yards were become so filthy, some took the fodder outside the yards and laid it on the clean ground which was a great improvement. In one yard, I noticed horses, cattle, and a few lean ewes, with young lambs, all eating at a half-rotted straw stack; the other part of the yard was a complete mass of dung, and not a handful of straw on it. I saw the ewes and lambs turned to one side of the yard, and a few ears of corn thrown down on the dung heap to them, which they went at greedily but as they shelled it off the cob, much of it fell on the dung, and neither that nor the under side of the ear could they eat, as sheep will die of hunger rather than eat anything that has a bad smell.

Now I have no doubt that every one of these

farmers could make good boxes or racks to hold the fodder for their animals, and any man could nail two boards together to make a sheep trough, and there are many ways of threshing corn at little cost. Two men and a pair of horses will tread off 100 bushels of corn in much less than a day; a man with a flail will thresh over 30 bushels in a day; or two men with one of Mr. BURRELL's shellers will shell over 40 bushels in less than a day.

Now, if the farmers have the intelligence and enterprise you say they have, is it not strange to find such a state of things in a rich county like Cayuga? You ought to take a trip through that county, and induce them to do better: but don't tell them they are the best read and most intelligent and enterprising farmers on the globe; but tell them their faults, and try to induce them to improve.

I can not keep any kind of stock profitably, unless I have racks or boxes to put their fodder in, with mangers or troughs for meal and grain, and dry and clean beds to lie on. I would rather keep less stock, and have litter enough for them to lie upon, with hay, rather than let them lie in dirt. Many years ago, I was of the opinion that a certain amount of hay was worth five to six dollars per ton to tread into manure by either cattle or sheep, where the owner has not straw enough for that purpose; and I am of that opinion still.

Our wheat looks very well; I don't know that I ever saw it look any better at this season of the year: but I am a little afraid I shall have some loss by the white worm that destroyed some of the best wheat in this neighborhood last year, about the last of April and early in May. I have some fear of a part of mine, but it is too early to be sure of it.

Near Geneva, N. Y., Mar. 28, 1852. JOHN JOHNSTON.

REMARKS.—We thank our respected friend JOHNSTON for his interesting letter. We have seen many such farms and farmers as he describes. The picture is to the life. But it can not be that this is a fair representation of the American farmer. The immense number of corn-shellors manufactured and sold, is evidence that American farmers are not generally as deficient in intelligence and enterprise as the remarks of Mr. JOHNSTON on this point would indicate. The same is true in regard to all labor-saving implements. Any improved agricultural implement or machine meets with ready and extensive sale.

The farmer would doubtless have found it to his interest to have manured the whole of his land for wheat; but instead of censuring him for not doing so, we would rather commend him for manuring as much of it as he could. To obtain sufficient manure, is one of the grand difficulties American farmers have to contend with. It does not follow because they do not make as much manure as the farmers of England, that they are not intelligent. Heat is higher in England than here. The climate is better adapted for the production of turnips and other root crops, and the winters are so mild that

they can be eaten on the land by sheep. England scours the world for cattle-foods and manures. Beans from the overflowing banks of the Nile, linseed and cotton-seed cakes from the fertile valley of the Mississippi, Carob beans (the "husks which the swine did eat") from sacred Palestine, dried flesh and bones from Buenos Ayres, nitrate of soda from Peru, and guano from the distant islands of the sea, all find their way to the quiet fields of "merrie old England." We once heard one of the best farmers of England, a thoroughly scientific man, and one whose opinion on this subject is eminently worthy of respect, declare that it was impossible for a farmer to make manure enough on his farm, unless he imported some cattle-food or artificial manures. If this is so in a country where half the land is occupied with turnips and clover, grown for the purpose of furnishing manure, how difficult must it be for the American farmer to make all the manure he requires.

Our friend thinks "men of intelligence" would see the advantage of harrowing in manure with the wheat. We think the practice is a good one. But the experiment alluded to by Mr. J. does not *prove* that such is the case. There is nothing to show that the manure would not have done as much good if it had been plowed in. Because a farmer passes that field daily, and yet does not adopt the practice, it is hardly fair to accuse him of a lack of intelligence—especially as the practice has been condemned (erroneously, as we believe,) by nearly all scientific writers and by the majority of practical farmers.

We have no wish to tell such farmers as our friend describes, that "they are the best read, the most intelligent and enterprising farmers on the globe." We are quite willing to "tell them their faults;" but we are not likely to have the opportunity. Such men do not read the *Genesee Farmer*. That there are many such farmers in the United States, we have no doubt; but this is no reason for the unmeasured abuse of the American farmers in which too many of our so-called scientific writers have so long indulged. We are not ignorant of their faults—of their comparative slovenliness and love of change—of their indisposition to expend money in underdraining and other *permanent* improvements. But these characteristic faults are incident to a new country, where rich lands are continually thrown into market, where railroads are developing the resources of new tracts of country, and where there are such abundant opportunities for speculation. We can hardly be surprised, however much we may deplore, if even intelligent men are generally willing to sell their farms and

try their fortune in some of these new fields of enterprise. This ever-present thought of "selling out" greatly retards the introduction of permanent improvements. But who shall say that the effect on the whole has not been beneficial—that the country at large is not the richer for it? The standard of agriculture in the older-settled States would have been far higher, had it not been for the new, rich lands at the West. That in many cases it would have been far better to have developed the resources of the soil at home, rather than to seek to acquire sudden wealth in the new States, there can be no doubt. Much personal misery and great national loss have been the result of this reckless speculation. But these are merely the concomitant evils of that spirit of enterprise without which the interior of this vast continent would still have been an unbroken forest.

#### HOW SHALL WE IMPROVE OUR HIGHWAYS?

WE make the following extracts from several communications received on this important subject. They will be read with interest.

THE modes of expending money in repairing roads are different in different States. In Pennsylvania they appoint or elect a supervisor for each township, whose duty it is to keep the roads in good repair, and bring in his bill for the same, which, without regard to amount, must be paid. This mode is, in my opinion, objectionable, from the fact that it is in the power of one man to expend any amount of money, without control.—Again, with one supervisor in each township, to work the roads in a reasonable time, he must employ more hands than he can work to advantage. It is a fact, I think, that twelve men will do more work than forty or fifty, according to the number employed.

In New Jersey the roads are worked differently. At the annual town meeting, held in April, it is left to a vote of the voters of the township to say how much money shall be raised by tax for roads. There is an amount fixed upon for that purpose. The township is laid off in small districts, and each district has an overseer, elected by the voters of the district. The town committee apportions the amount of money voted for roads to the several districts, according to length, condition, &c. If, in the judgment of the overseer, the amount apportioned to his district will not make the roads in a lawful condition, he calls one or more of the town committee, who order him to do the work necessary to make the roads passable. At the meeting of the committee in the fall, (in October, I think,) the different overseers hand in their bills, and receive an order on the township collector for the amount.

This mode I think is also objectionable. The roads are often neglected for want of means to work them. Some overseers, rather than call the committee, will leave the roads unfinished. Others, after the call of the committee, will run their bills to an unrea-

sonable length, for the sake of a "job." Again, by this arrangement, the hands employed (generally in May) must wait until December for their wages.

Your mode of repairing roads, or rather your mode of expending money for the repair of roads in New York, I am unacquainted with. I would submit it to your consideration, whether it would not be better and more economical to adopt a plan something like this: When the people meet to transact their township business, elect their officers, &c., let them ascertain how many miles of road they have in the township, and then put out the roads of the township by contract to the lowest bidder, either by the mile or for the repairs of all the roads in the township, the contractor giving bonds and security for the faithful performance of the contract, to be subject to the order and dictation of the town committee. Could we not by this mode keep our roads in better repair, with less expense, than we do under our present arrangement; and the hands employed would then get their pay as they do their work.

W. H. SNYDER.

*Rosemont, New Jersey.*

THE law places the supervision of the highways in each town under one or three commissioners, as the towns shall elect, and who are to divide the highways into convenient road districts, which districts are placed under the charge of overseers, one for each district. The commissioners levy an annual labor tax on the taxable inhabitants of each town, in addition to a poll tax of at least one day on each white male citizen of 21 years of age. This tax amounts to about half a day to one hundred dollars of valuation of property, as assessed by the town assessors. A warrant is made by the commissioners to the overseers, directing them to cause at least one-half of the labor assessed upon their districts to be worked in June, and the balance when most needed by the highways, and to make returns of what they have done in the premises, &c.

Now let us take a look at our highways, and see how this system is carried out.

District No. 1, in a town, for instance, will turn out, rain or shine, and expend their whole labor at once in throwing up a narrow windrow of surface soil to the height of three or four feet from the original level, leaving deep ditches on each side, while the windrow is so narrow and the sides so steep that it is almost impossible for meeting teams to pass each other without upsetting. Then, again, there is no chance for making two or more wagon tracks; but all must travel in the same track, making, in wet weather, deep ruts in the unsuitable earth used for the so-called road. The excuse for making this sort of road is, "to shed off the water," when in fact it has exactly the contrary effect, retaining it in the deep ruts.

The overseer of District No. 2 sees the error, as he calls it, makes his road wider, and, in order to turn off the water, makes, in every few rods, a diagonal "mound," two or three feet high, across the road, with a ditch on the upper hill side. This plan is very vexatious to fast young men in gloves, moustache, and trotting buggies, as well as to heavily loaded teams, giving the wagon a very disagreeable double twist as it passes into and out of the ditch and over the "mound;" but it is better, on the whole, than the plan of No. 1.

No. 3 concludes, on the whole, that the road in his district will answer as it is; and as he is in a hurry with his own work, and does not travel the roads much, he "lets it slide," and does nothing.

Again, in village districts, there may be assessed two or three hundred days' work on a road say a mile in length; and, in many back districts, of two or more miles in length, there will be perhaps from ten to forty days assessed. Many districts put off their road work until after they have got through with their summer's farming, and then, in October or November, they will go to work, plowing, scraping, and "mucking up" the surface soil, making a perfect mud-hole until Jack Frost closes it; and in the spring it is mud, mud, until old Sol dries it up. On return day, some districts make full returns, others partial returns, and others no returns at all; and so on to the end of the chapter.

Now this is all wrong. The law is far behind the times. The manner of assessing the tax is wrong; the manner of working it out is wrong; and it is all wrong. I would recommend amending the highway laws so as to do away the district system entirely, and put the supervision of the roads under *one* commissioner only, who should enter into bonds to his town for the faithful performance of his duty, and who should have a compensation adequate to the labor which he performs for the public. Instead of a labor tax, I would have a money tax, to be paid to the commissioner, who should expend it when and where most needed. A money tax of twenty-five or thirty cents on a hundred dollars valuation, properly expended, would do more good in making and repairing highways, than all the labor now assessed. The commissioner should have discretionary power to let those who have considerable taxes to pay, pay it in cash or do a specific job on the road at a fair price for their labor.

It is perfect folly to undertake to make a road of surface soil on clayey or mucky land. On such land, a permanent road can be made sooner and cheaper by carting gravel two miles, first covering the bed of the road six inches or a foot deep with small stones, and then covering all with gravel or sand.

The law requires that roads should be laid out three rods wide. They are so laid out and recorded, though but a very small proportion of them are *open* to that width; in many places but two rods; and I have seen them but *one* rod from corner to corner of the crooked rail fence. Such narrow roads are generally obstructed in the winter by snow-drifts, when travelers are obliged to take to the fields, throwing down fences, &c., to the great vexation of farmers, who might remedy the evil, in a great measure, by opening the road to its proper width through their premises.

North Almond, N. Y.

WM. HOWE.

THERE is but one true plan in making a good road through arable land; and that is, to ridge it well up in the middle, and allow no water to remain on either side. In general, this may be effected with the plow, the harrow, and a road machine or scoop. Some are of the opinion that after the work has progressed so far, it should remain one winter, to allow it to settle and become more compact. In that case, it will most likely be barely passable in the spring, should the frost get in very deep; but

it will afterwards be in the right state to receive a good coat of gravel, and that should be of pure grit, and if rather coarse, will wear all the better. After that operation has been properly performed, you are then in a fair way to have a good road, and a little attention will keep it so for a number of years. In a hilly country, cut down the hills and raise up the valleys, as the nearer level a road is, so that the water will run, the better. Where ruts are allowed to form and remain open, of course the water will settle; but where a road is well attended to, there will be no ruts at all, or at least only temporarily.

The road scraper is very serviceable, and should be used much more frequently than is the case on some of our roads. x.

WHEN my father moved to this place from the east, twenty-seven years ago, this was all a howling wilderness, with here and there a log house. The roads were all in a state of nature, and lay through low, timbered land. The soil was clay, sand, and black loam. There was not a worse road in the town than ours when it was new. The first thing we did was to chop it out four rods wide. We then commenced at one end of the district, and grubbed out the stumps on as long a piece as we could finish that season, plowed it up about two and a half rods wide, and then scraped it up until we got the ditches about eighteen inches or two feet deep. We then let the water all out of the ditches, so that none would stand by the side of the road, and levelled off the road smooth. The next year we would take another piece, and do it up in the same way, until we got it all finished. We not only worked out our road tax, but we gave a good deal beside. We then commenced back and scraped it over again where it needed it, and drew sand upon the clay. Finally, not knowing what else to do, we shoveled out some of the ditches two and a half feet deep, to drain our farms.— We now have the best road of any district in this town; and, taking everything into consideration, I don't think it can be beaten in this State.

Ray, Macomb Co., Mich.

C. INMAN.

IN hot weather, all are ready to admit that roads might be greatly improved by being shaded. How beautiful to travel along the highway improved by a row of trees planted along each side, thus forming a narrow lane, along which a gentle current of air is almost constantly passing. Their many leaves are also in constant motion, like so many fans of nature, cooling the weary traveler on his way.

The above facts being admitted, the question will naturally arise, with what kind of trees shall our roads be planted? I would answer, with some kind that would be both ornamental and useful. In old-settlements, where the forests are nearly all cut down, the maple, the walnut, the locust, and many others, would be both ornamental and useful. The locust is very useful, being easily cultivated, of rapid growth, and more durable than any other timber for fence posts. But in newer settlements, where the forest is yet in its beauty, fruit trees, planted along the road through the farm, would be more ornamental and useful—such as the apple, the cherry, the plum, the mulberry, and many others. What could be more delightful than to

see long lanes lined on each side with beautiful trees in bloom? The wild or crab apple also yields a most delicious perfume, for many rods around, when it is in bloom. And in the latter part of the season, how beautiful to see the trees bending under their heavy loads of different hues, delicious both to the eyes and palate. By thus improving our highways, we might almost dispense with the orchard.

WM. RENO.

New Castle, Lawrence Co., Pa.

## NOTES FOR THE MONTH.—BY S. W.

**DISTILLERY-SLOP-FATTED BEEF AND MUTTON.**—The best meat sold here is by an English butcher. It is fattened on good hay, a very few roots, and still-slop. He gets 12½ cents per lb. for the best cuts of beef, and 10 cents for mutton; while the half-fatted beef and lean mutton he buys from farmers he sells at two cents a pound less. Yet we are gravely told, by a committee of the New York Academy of Medicine, if the *Journal of Commerce* reports truly, that the "beef of swill-fed cows has its cellular tissue filled with fluid to a great extent, instead of solid fat." And what is still more astounding, and a poser to analytical chemistry, is, that the milk of still-swill-fed cows is "entirely wanting in the phosphoric ingredient that is found in pure milk;" which necessarily implies either that cereal grain, so rich in phosphates, contains less phosphate of lime than grass, or that the phosphoric ingredient had been taken off by distillation, which is a physical impossibility.

In the report, last year, on the character of the New York swill milk, it was contended that the cows were kept in a state of semi-inebriation by the waste alcohol that was run off with the slop; but now the reverse is complained of by this learned committee, to wit: that "the swill, from the period it is drawn from the alembic, is highly charged with acetic acid." Last year it was contended that the milk of swill-fed cows would not coagulate as soon by several hours as other milk. Now this committee says that "it undergoes remarkable transformations in less than four hours." Interlarded as the report is with professional verbiage, assertions like these only show how well this committee has been hoaxed; for it appears that the report is *ex parte*—made up on hearsay evidence, furnished drawings, and bugbear reports, and without any made analyses on the part of the committee, or other exact knowledge of their own in the premises. But while a nursery story only frightens children, this queerly elaborated indictment of swill milk may frighten the mothers of children; yet the excellent, savory, well-fatted meat, and good milk and butter, that is daily made in the country from distillery-swill-fed animals, scatters to the four winds the pen-and-ink analyses and *ex parte* report of this committee of the New York Academy of Medicine.

**THE VALUE OF LEACHED ASHES.**—A western agricultural paper says "thoroughly leached ashes contain no potash." I have noticed that ashes can not be thoroughly leached of their potash, even by the application of hot water, as enough of alkaline salts has remained to affect the skin of my fingers. The presence of acids, or the action of the roots of growing plants, can alone extract all the potash

from wood ashes. But as leached ashes contain, beside potash, all the mineral elements of plants, they can not fail to be an excellent manure for all light and thoroughly exhausted soils. One of the best farms I ever saw in Rhode Island was brought up, from an exhausted barren sand that supported no vegetation, to clover bearing, by the aid of leached ashes alone. Milch cows and swamp muck, afterward, with the aid of clover, induced great fertility.

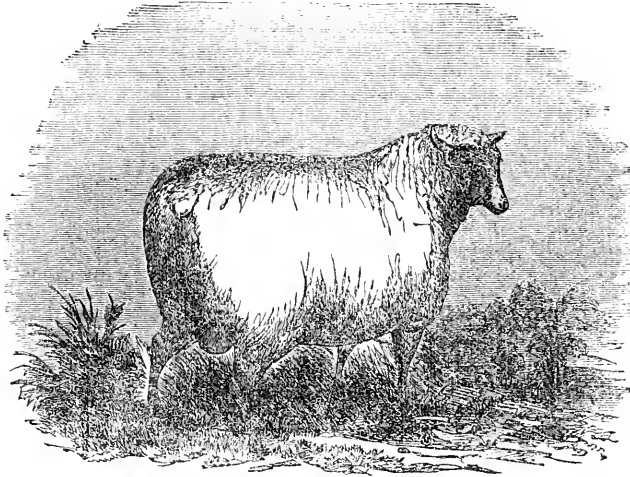
**THE VALUE OF MANURE FROM WELL-FED ANIMALS.**—Here is a farmer who had two acres of sandy land, near this village, so thoroughly exhausted that it would hardly support grass. He gave our stall-feeding butcher the use of it one season, for the benefit of the manure he was to put on it. He put on 40 loads of stall manure, the basis of which was distilled grain, and got a large crop of potatoes, leaving the soil so full of organic matter that its color was changed from drab to a chocolate color in many places. These forty loads evidently improved this field more than twice the quantity of the ordinary farm-yard manure. JOHN JOHNSTON said he would not have bought linseed meal this winter, at the present high price, but for the extra value it gave to his manure. He also buys lean sheep and cattle to fat on his large crop of hay and corn, counting on the extra value of the manure as no small part of the compensation. At this time he is selling sheep at eight to ten dollars each, that cost him but two dollars last fall. Yet, strange as it may seem, an Ohio farmer correspondent of the last *Ohio Cultivator* attempts to show his brother farmers the profits on pork growing, without adding a single penny to the credit side of the account for the manure made. So much for the Western obliviousness of organic manures; while in Rhode Island it is said that every breeding sow, if supplied with common materials, will half pay her board in the manure she makes.

**A LITTLE CORN TO FARM STOCK.**—A farmer who has had much experience in wintering stock, says, if you feed corn in the ear to cattle during the day, they will not digest it well; but a few nubbins fed at night, after the animal has eaten hay and is ready to lie down, will all be re-chewed with the cud and thoroughly digested, adding profitably to the keeping of the animal.

**A FEW WORDS ON HAY.**—Here is a practical farmer who says he wants timothy to grow until it is so ripe that it may be cut and hauled into the mow the same day. *Per contra*, here is a cow who will not eat such hay at all, if she can get that which was cut before the seed had filled, and was well cured by sweating in cock. I take it that it is the imperfect curing of early-cut hay that brings it into disrepute. Some farmers allow it to burn in the sun; and because it does not cure easily they let it lie exposed to the night dew, if not to light showers. Such hay loses all its sweetness. I have seen hay well cured in cock in bad weather. When the wind blew, and the air was partially dry, the cocks were opened; but always closed at night, or before a shower. There can be no doubt that hay cut before the seed has filled is twice as nutritious, if well cured, as that which needs no curing after the seed is ripe.

S. W.

Waterloo, N. Y., March, 1859.



SOUTH-DOWN BUCK "THORNDALE." BREED BY SAMUEL THORNE, WASHINGTON HOLLOW, N. Y.

### SHEEP—THEIR EARLY INTRODUCTION.

THE first sheep introduced into America, of which we have any record, were brought from England to Jamestown, Virginia, in 1609. In 1648, the number increased to 3,000. In the early part of the last century, they thrive well and bore good fleeces; but wool-raising was suffered to decline, owing to the losses sustained by tearing off the wool by bushes and briars.

Sheep were introduced into the plantations of Massachusetts Bay prior to 1633, as mention is made of keeping them on the islands in the harbor, to protect them from the Indians and wolves. They were introduced into Nantucket in 1660, at the time of the first settlement by the proprietors.

The first sheep imported into this State, according to VAN ONDERDONCK, who wrote about the year 1650, were brought from Holland in 1625; others were brought from Zealand and Texel to Rensselaerwick in 1630. But little progress was made on the Hudson for many years, in consequence of the ravages committed by dogs and wolves. In 1643, there were not over sixteen sheep in the colony. In 1650, they were so scarce that an animal bearing wool was worth from eight to ten dollars.

The first Spanish sheep introduced into this country, of which we have any account, were sent by M. DELESSERT, a banker in Paris, and arrived at Philadelphia, in the ship Benjamin Franklin, on the 16th of July, 1801. Owing to a long and boisterous passage, out of the four bucks shipped only one lived to reach this country.

The introduction of Merino sheep into the United States formed an era from which we may date much of our thrift and prosperity. Chancellor LIVINGSTON, of this State, foresaw at an early period the immense advantages that would result to our country from their introduction, and sent from Spain, in 1802, two couples of select Spanish Merino sheep; and to him belongs the honor of one of the earliest importations. Subsequently, by himself, Colonel HUMFREY, Gen. DERBY, Consul JARVIS, and others,

the country was supplied with Merino sheep. It was not, however, until some seven or eight years after their first introduction, that their importance began to be appreciated. A *mania* for sheep then commenced, scarcely excelled by the *Morus multi-caulis* speculation at a later period. As much as \$1,000, and in some instances \$1,500, was paid for a single buck!

In 1810 or '12, Bakewell sheep were first introduced on Long Island, by THOMAS LAX, an Englishman, and by the late CHRISTOPHER DUNN, of Albany. In 1814, Mr. DUNN obtained a buck of the same breed, which was captured by one of our privateers from an English vessel on her way to Canada. Since the war of 1812, many importations, by different individuals, have taken place in all parts of the country.

Among the early importers of South-Down sheep were the late JOHN H. POWELL, of Philadelphia; FRANCIS ROTCH, Otsego county, N. Y.; SIDAY HAWES, who emigrated to this country in 1832, and settled on "Three Hills Farm," near Albany; MESSRS. BRENTNAL and WAIT, Orange county, N. Y.; and more recently, L. G. MORRIS, Fordham, N. Y.; J. C. TAYLOR, New Jersey; and SAMUEL THORNE, Washington Hollow, Dutchess county, N. Y., who, with commendable liberality, without regard to expense, has imported some of the choicest specimens of this valuable breed that could be procured in England.

The Downs imported by Mr. HAWES in 1832, came in possession of the writer, with the farm, in 1835. We bred from them several years, and found them a valuable breed. Their mutton is of the choicest kind, and always commands the highest price, although from the properties of the sheep it can be produced at the least cost. By their activity and vigor, both of muscle and constitution, they are fitted to encounter any difficulty, as well as to endure the extremes of heat and cold.

In Great Britain, the South-Downs stand at the head of the short-wooled sheep. They were once confined to a small district in Sussex, but for the

last forty or fifty years have been rising in favor, and on hilly lands of second-rate fertility have proved themselves superior to all other breeds. In several counties of England they have driven out the old kinds; being hardy, quick stock, good nurses, fattening kindly, and, when fat, bringing the highest price in market. They are cultivated more particularly for their mutton, which, for quality, takes precedence of all others. Their early maturity and extreme aptitude to take on flesh, render them peculiarly valuable for this purpose. The ewes are prolific breeders and good nurses. They are quiet and docile in their habits, and, though industrious feeders, exhibit little disposition to rove.

A sheep possessing such qualities must of course be exceedingly valuable in districts in the vicinity of markets. Accordingly, they have been introduced into every part of the British dominions, and imported into this and other countries.

*Springside, N. Y., April, 1859.*

C. N. BEMENT.

### BUILDING STONE FENCES.

MESSES. EDITORS:—There are several of your prize essays in the January number which I believe unsound in theory, and know they will not stand the test of practice; and, with your permission, will endeavor to point out some of the most prominent errors in each, as time will permit, commencing with M. T., of Washington county, on building stone walls, who begins by saying, "To erect a good stone fence, it is necessary, except on ground not affected by frost, to dig a trench twelve to eighteen inches deep, and as wide as the base of the wall is desired to be;—for a half wall, two feet; and for a four and a half or five foot wall, two and a half feet wide. This trench should be filled with small stones pounded down, and made level with the ground."

I would ask, of what possible advantage is this trench twelve or eighteen inches deep, filled with stones? It makes a good drain, and water will most certainly find its way into the trench sooner or later; or else ditching is of but little use. The banking up on both sides, with nothing but the stone wall above, will not prevent the water from freezing in the trench, or the earth in the bottom. In the same proportion as it freezes it will heave, and affect the wall more or less.

Again; where there is much descent, the water running in the trench will soon commence washing away the earth in the bottom, which will cause the wall to settle; and it is by no means certain that it will settle level.

Stones are not slippery things, and never fall down if laid on a foundation that never moves, which is the all-important question in making walls. I have made fifteen or sixteen miles of wall on a soil that is as subject to heave as any soil in the State, and I have never had the first stone fall when I made a foundation by back-furrowing a ridge twelve inches high and five feet wide. This can be done by back-furrowing several times. Give full opportunity to settle, before placing the wall on it. This makes a saving of one foot, if laid on the surface; and two and a half, if commenced in a trench eighteen inches deep, which is an important saving. The wall then need not be

more than four feet high and twenty-two inches wide on the bottom, and tapered equally on both sides to ten inches on the top, when a coping should be made on the top, by placing a stone standing on the edge that is sufficiently long to reach the entire width of the wall, and may be a rough or crooked stone that would not work in the wall. Great care should be taken to keep the wall level, and lay all the stones crosswise that will reach across the wall. The ridge being five feet wide, the wall being in the center, there will be one and a half feet on each side to bank up as steep as possible, which will make a high, sharp bank, which will require sufficient earth to make a deep ditch on both sides, making large sluice-ways for the water to run through, to prevent at all times any water from standing in the ditch to soak under the wall. The foundation is secured, beyond a contingency, from water, and no soil can heave without it. In many instances where a fence stood, I could not make the bank for the wall to stand on without moving, therefore made the wall on the surface, and then made a good bank on each side, which in all cases has not saved it from falling, occasioned by the soaking of water under the wall. The all-important thing is to keep the earth dry on which the wall stands.

*Hornby, N. Y.*

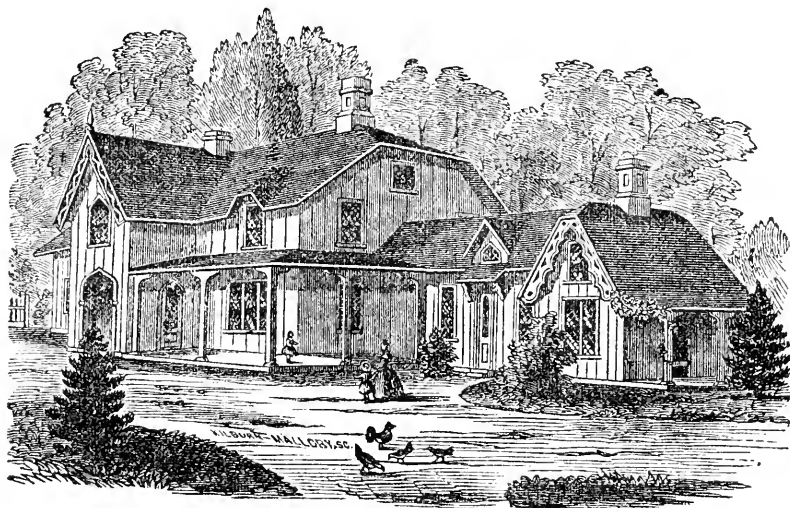
A. B. DICKINSON.

STOP THE SUCKER.—Good cows, many times, are in the habit of sucking themselves, and many ways are tried in vain to prevent the mischief; and young calves are always in the habit of sucking each other's ears. This may be prevented by a composition of spirits of turpentine, musk, and asafetida. Heat them all well together, and, when cool, give the cow a large spoonful on the roots of the tongue; then rub a little on the cow's bag, about the roots of the teats. If the cow still continues in the habit, cut off the fingers of an old glove, slip these over the teats, and saturate them well. They may be taken off when you want to milk. Always give your patient a good taste of the medicine before you rub it on. Calves may be treated in the same manner. If musk is not convenient, the composition may be made of spirits of turpentine and asafetida.—A. L. SMITH.

PASTURING MEADOW LANDS.—Many farmers are in the habit of pasturing their meadows in the fall, and even till early in the spring, especially in open weather, when the ground is frozen. Any farmer who has a correct knowledge of the main principles of agriculture, must admit that this course should not be practiced. On ordinary farms, meadows will not produce more "waste feed" than they require to protect the plants from the frost and drouth the following winter and spring. If the first suckers are cut off at the ground by stock, vegetation will be deferred till very late in the spring, and your crops will be diminished year after year, till your meadows are worthless.—G. B. MILLER, *Jeffersonville, Ind.*

BLACK LEG IN CATTLE.—A correspondent of the *London Mark Lane Express*, as the result of long experience, recommends for this disease, bleeding to faintness, and then a drench of four ounces of Epsom salts.





DESIGN FOR A FARM-HOUSE OF THE RURAL GOTHIC STYLE.

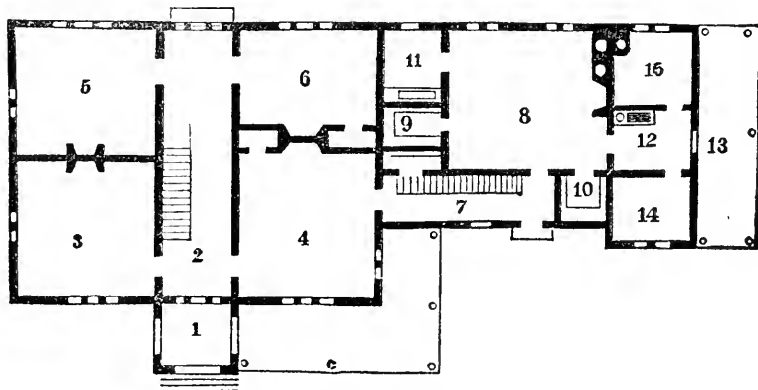
**FARM-HOUSE IN THE RURAL GOTHIC STYLE.**

THE accompanying drawings are a design and plans for a farm-house of the rural gothic style, with conveniences for an estate of considerable size. The designs and the following description were furnished for the *New England Farmer* by GEO. E. HARNEY, Esq., Architect, Lynn, Mass.

“The accommodation is as follows: The first floor contains—No. 1, a porch, open on three sides, and communicating on the fourth with the hall, No. 2, 8 feet wide, and extending through the house, with a door at each end. This hall contains stairs to the chambers, and opens into the principal rooms of the house. No. 3, parlor 15 ft.

square; No. 4, living-room, 15 by 16; No. 5, bedroom, 13 by 15; No. 6, bedroom, 10 by 15. This room, if desired, may be used for a library. No. 7 is a back entry containing the servants' stairs to chamber and cellar, and opening into the kitchen, No. 8, 18 by 18. Connecting with the kitchen are two large china-closets, Nos. 9 and 10, and a store-room, No. 11. No. 12 is a pantry, 7 by 8, opening upon the small veranda, No. 13. No. 14 is a dairy or milk-room, 8 ft. square; and No. 15 is a wash-room or scullery of the same size.

“The second story contains seven good-sized bed-rooms, with their necessary closets. Those in the L being entirely distinct from the main body, and reached by a different flight of stairs, may be used for servants and hired men. The attics, if not



PLAN OF GROUND FLOOR.

needed at present, may be left unfinished, and used for drying purposes. The cellar, occupying the whole of the space under the house, should be divided into several apartments corresponding to those on the first floor, to be used for storage, fuel, &c.

“CONSTRUCTION.—Although we greatly prefer stone or brick for the construction of such buildings, yet as there seems to be such a prejudice in favor of wood, (especially in New England,) we have designed the above to be built of that material.

For outside finish, we should prefer plank—stout 1½-inch plank—put on in the vertical manner, and the joints covered with 2½-inch battens. The ornamental portions, window-hoods, verge-boards, &c., should also be made from 1½-inch plank.

“We have designed the windows to be filled with lozenge or diamond panes; but these, although more in accordance with the style of the house, may be omitted, and rectangular squares inserted in their place.

“Cost.—Built in the above manner, the interior finish of a plain, inexpensive character, this house would cost, in the neighborhood of Boston, from \$3,800 to \$4,000.”

### MANAGEMENT OF CALVES, &C.

THE *Genesee Farmer* has come to hand, now as ever a welcome visitor, containing much valuable information, which is producing the desired effect. The people are beginning to appreciate such publications, and when they have once taken the *Genesee Farmer*, do not like to be without it. In fact, some of us need two, in order to keep peace; for it is no sooner in the house than the ladies want it, and we can hardly get hold of it; neither can we endure waiting.

The article on the management of the manure heap, published in the February number, is excellent, as are also many others, such as “Bringing Seed from the South,” “No cattle no manure,” &c. But if I should attempt to notice all the interesting articles in any one number, I should only waste my time and your space.

The letter from JOHN JOHNSON, in the March number, is very interesting. I hope he will entertain us with more such experiments. But there is an article on rearing calves, from the pen of E. MAYNARD, I think little of, and am only astonished that some of your able correspondents have not written a reply for the April number. I shall take up the paragraphs as they stand, and give my opinion of them, and let it go for what it is worth.

Taking calves from the cow at two days old, is not good. They are more stupid about drinking than when first dropped. I would sooner take them from the cow as soon as they can stand, and learn them to drink before they learn to suck. I find this to be the easiest way, and, all things taken into account, it is just as good if they suck the cow. A little less milk will serve them; but it punishes them at weaning time, and is also harder on the cow. But they should have new milk at least three weeks; and if longer, it will pay, if care be taken of them afterwards. I consider sour milk no feed for a young calf. It might do as a drink for them at three or four months old. Let milk stand twenty-four hours, and then skim it, and it is worth something for them, and they will pay for all that may be lost in the cream.

As to the information in the second paragraph, it might do very well if people would take the trouble.

Not so with the third. I have seen many calves raised, but have never seen one much hurt with over feeding the first few weeks; but if, on the other hand, they get stunted at that age, it often takes more to start them again than they are worth

at six months old. Mr. MAYNARD's cows must be good if half their milk is sufficient for a calf until four weeks old; but any farmer's wife should know when a calf's belly is full, whether suckling or feeding from the pail. I knew an old woman who used always to allow her calves so many panfuls, no matter what age or size; but she never had good ones. Care should be taken not to let them drink too fast.

In regard to letting them suck all summer, few people would do that, unless they intended making something of them; then of course they would continue to feed well. But even in that case I would prefer feeding them by hand with new milk. They become more docile, and are less troublesome at weaning time.

J. N.

Canada West, April, 1859.

PLANTING POTATOES WITH CORN.—Last year I told you of my planting potatoes among corn, and with what success, that being the second year. I am now to relate my third year's trial, this being with the Mercer, which have always been, with me, more subject to the rot than any other kind I have raised. In digging them last fall, I found enough to prove that they were not wholly exempt from the disease, still there were far less than among those planted alone. The yield was not as good as by themselves, while I believe the corn was full as good, in both quantity and quality, as if there had been no potatoes there. My method is to fit the ground for corn, mark for rows one way, and plant across the marks. This gives rows both ways. I then plant a hill of potatoes in every space between each two hills of corn. This leaves the crop so as to be cultivated only one way, which may be repeated as may be required.—D., *Gates*.

BEANS ON A SANDY KNOLL.—Last year a friend of mine, who had a sand hill of half an acre on his farm, which had never grown anything—not even weeds, concluded to try beans. He had the land plowed and harrowed, and about the first of June planted his beans, (*White Dwarf*), in bunches, 3 feet by 2. After they came up they were well cultivated, and supplied with a handful of plaster to each hill. The crop when harvested yielded 22 bushels of as good an article as was ever raised.—J. M., *Norfolk Co., C. W.*

THE IMPORTANCE OF UNDERDRAINING.—Here is a man who drained an eight-acre lot, and got 300 bushels of barley from it the next season. The farmer he bought the farm of had the honesty to tell him that the field was worth nothing but for pasture, and very little for that; and that whenever he broke it up and planted or sowed it with grain, it was a dead failure. This is now the most reliable field for a grain crop on the whole farm. A hard clay subsoil.—S. W.

EARLY PASTERING.—Stock are better kept in the yard in spring, till the grass gets a good start. Then turn them out for a few hours every day. Continue to give them dry food every day for a week or ten days, to prevent scouring.

A handful of dry peat in the hill is said to have a good effect in preventing the potato disease.



### HORTICULTURAL NOTES FOR THE MONTH.

THE weather has not proved as warm as we were led to anticipate this time last month. Still, on the whole, we have had an early and favorable season. The majority of crops in the garden will be up by the time this number reaches our readers,—at all events, the weeds will be up. It would seem hardly necessary to say that weeds and cultivated crops cannot both thrive on the same soil; but many persons appear to overlook the fact. As far as possible, all crops should be sown in rows sufficiently wide apart to admit the use of the hoe, and as soon as the rows can be traced the soil should be lightly hoed. A little timely attention to this matter saves a great deal of after labor and trouble. The weeds will be more effectually destroyed, and the plants will be benefited by breaking the crust of the earth. The soil for all culinary vegetables can rarely be made too rich, but we are satisfied that in the majority of farmer's gardens poor soil is not so general as poor cultivation. We once visited the rich lands in the Sciota valley, in company with a very intelligent Ohio gentleman; and on alluding to the astonishing luxuriance of vegetation, he remarked, "All we have to do here is to prevent everything else from growing except the one crop desired." It is so in most gardens. Keep down the weeds, and the grateful soil will throw up the cultivated plants in rich abundance. Hoing the soil is to some extent equivalent to manuring it. The primary meaning of the word manure is hand labor.

What gardener has not sighed for a full supply of water, and an easy method of distributing it to his drooping plants? But how few seem aware that on all but the sandiest soils, constant stirring is the best means of rendering the ground moist? We know an excellent farmer who entertains the opinion—and acts upon it—that by the frequent and judicious use of the horse hoe he could obtain a good crop of corn without a single shower of rain from the time it was planted till it was harvested. On very light, warm soils, however, mulching is

one of the best methods of keeping the soil moist. It checks evaporation, and smothers the weeds. On such soils, recently transplanted trees should always be mulched as soon as the warm weather sets in. So of strawberries, raspberries, blackberries, and gooseberries.

Some people talk of mulching with turnips and other broad-leaved plants,—forgetting that all plants in growing pump up water from the soil and evaporate it through their leaves. Nothing can be more absurd than to suppose that growing plants keep the soil moist by shading it from the sun. Every farmer knows that a summer fallow is damper than a field of grain or grass.

In many sections, much of the work alluded to in the *Farmer* for April will have to be performed this month. Lima and string beans can now be planted as then recommended. Plants from the hot-bed, such as cauliflower, celery, &c., can be thinned out if too thick, and pricked out in a sheltered spot till sufficiently hardy for final transplanting. Tomatoes should be set out in warm soil and a sunny situation as soon as the weather is sufficiently settled. Transplant them carefully, so as to disturb the roots as little as possible. Plants which spring up from self-sown seed often produce earlier fruit than those raised from seed sown in the open ground in the spring.

For cucumbers, dig holes six feet apart, two feet in diameter, and about a foot or fifteen inches deep. Fill with well rotted manure thoroughly mixed with the soil which came out of the holes. Then place a few inches of very fine, rich, sandy loam or leaf mould on top, and plant six or eight seeds in the centre of the hill. A small frame, or an old, bottomless cheese-box, placed on the hill, will be very useful in keeping off cold winds and checking the ravages of the bug. If they could be covered with glass or thin gauze, they would be still more advantageous. In this case it will be necessary to ventilate a little each day, soon after the sun has begun to shine upon the glass, and shut up about four or five o'clock in the afternoon, before the sun leaves the glass. The glass or frame should be lifted on the opposite side from which the wind blows. Water when dry with lukewarm water. When the plants have made three rough leaves, pinch the top out of each plant to make them branch, and leave but three plants in a hill. If not covered, examine the plants early in the morning, or in the cool of the evening, and kill the bugs.

For melons and squashes the hills may be made in the same way as for cucumbers. They should

be about five feet apart for the *Early Christina* musk melon, six feet for the water melons and the summer crook-necked squash, and eight feet for the *Boston* or winter squash.

Egg plants can be sown on a warm light soil, either where they are intended to remain or on a warm border, transplanting them during showery weather in June. Set the plants two feet apart.

Salsify, or the so-called vegetable oyster, requires similar culture to the carrot. Sow in rows one foot apart, and thin out to six inches in the rows.



THE CORK OAK.

THE Cork tree (*Quercus suber*) bears a general resemblance to the broad-leaved kinds of *Q. ilex*; but when full grown it forms a much handsomer tree, though perhaps not quite so hardy. The nuts are sweeter, and have been eaten as human food in cases of necessity. Pigs eat them greedily, and get rapidly fat on them, producing a firm and very savory lard. The Spaniards eat the acorns roasted. The outer bark, the great thickness and elasticity of which is owing to an extraordinary development of the cellular tissue, forms the cork; which, after the tree is full grown, cracks and separates from it of its own accord. The inner bark remains attached to the tree; and when removed in its young state, is only fit for tanning.

The cork tree is found wild in dry, hilly places, in the south of France, in Italy, in a great part of Spain, and in the north of Africa. Its bark forms the cork of commerce, and appears to have been applied to useful purposes in the time of the Romans.

The acorns of the cork tree have been distributed throughout the United States, this spring, by the Patent Office. We see no reason why the cork tree may not succeed, especially in the more temper-

ate sections of the country. MICHAUX strongly recommended its introduction into the Southern States, observing that it could not fail to thrive wherever *Q. virens* exists. It is readily propagated from acorns. There is nothing peculiar in its culture, except that the young trees should be pruned so as to have a clear stem of 10 or 12 feet in height, on which the cork is to be afterwards produced.

#### SPIRÆAS.

No family of ornamental plants has increased so rapidly in favor, in this country, for a few years past, or been more entitled to the attention they have received, than the the Spiræas. With few exceptions, they are quite hardy, even throughout Canada, and adapt themselves to a great variety of soils and situations. The different sorts vary much in their foliage and flowers. Many of them are of rare beauty and elegance, and all are highly ornamental and worthy of much attention at the hands of amateur planters. They are of the easiest culture, and are readily propagated either by layers or cuttings. To give even a brief description of the many sorts that are well deserving attention, would require more space than we have at present at command.

Annexed we give engravings of a few of the more prominent sorts.



SPIRÆA CALLOSA.

SPIRÆA CALLOSA.—Dr. LINDLEY pronounces this "the handsomest flowering hardy shrub of July,

after the rose." It is a native of Japan. It derives its name from the presence of a small red callosity seated on the end of each of the numerous notches that border its leaves.



SPIRÆA LANCEOLATA.

*SPIRÆA LANCEOLATA* or *REEVESII* is another beautiful species, with large clusters of snowy white single flowers, that cover the whole plant in May.

THE DOUBLE-FLOWERING PLUM-LEAVED *SPIRÆA* (*S. prunifolia flore pleno*) is also a well-known and beautiful species, with small, double, white flowers in May. Its habit is slender, erect, and regular; and when in bloom, every branch is like a wreath of white daisies. The color of the foliage in the autumn, too, is a great point of merit, being a bright orange with a light tint of red.



SPIRÆA ULMIFOLIA.

*SPIRÆA ULMIFOLIA* is a well-known and beautiful shrub, with broad leaves and large trusses of white flowers.



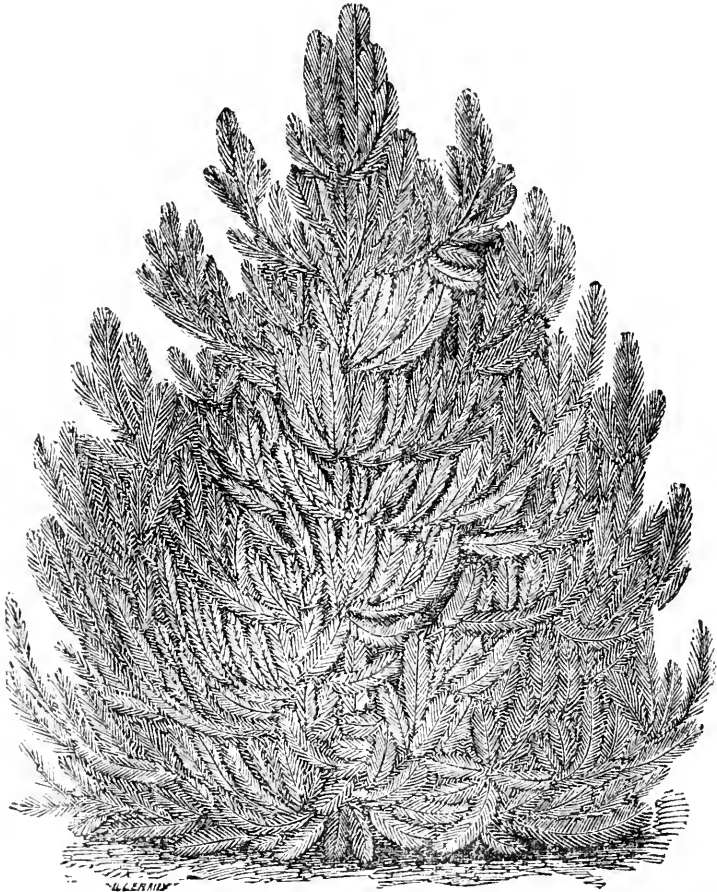
SPIRÆA GRANDIFLORA.

*SPIRÆA GRANDIFLORA* is a newer species, discovered by Mr. FORTUNE in the north of China. Its conspicuous large flowers can not fail to recommend it as a very desirable ornamental shrub.

We hope, during the coming summer, to be able to make further illustrations and remarks in reference to this beautiful tribe of plants. Many of the *Spiræas* are natives of the Northern United States—some of Europe and China. A part of them are low shrubs, from three to five feet high; and part are herbaceous plants, which throw up shoots each season, some from four to six feet high, and which die back at the end of summer.

**EXOTIC GRAPES.**—BUIST, in his *Garden Almanac*, selects the following eight as the best varieties of exotic grapes for general cultivation:—*Black Hamburg*, *Black Frontignan*, *White Frontignan*, *Trebiana*, *Black Tripoli*, *White Muscat*, *Golden Chasselas*, *West St. Peters Mitchell's*. After twelve years practice in this country, I should select these:—*Black Hamburg*, *Black Prince*, *Zinfindel*, *Barbarossa*, *Syrian*, *White Muscat of Alexandria*, *White Hamburg*, *Muscat Hative*, sometimes cracks.

*Black Tripoli*, a large grape; it stands in the same position among exotic grapes as the *Charter Oak* grape does among the hardy varieties. *Trebiana*—I don't know that variety; can you describe it? *West St. Peters Mitchell's*—I suppose that is *Oldacre's West St. Peter's*. *White Frontignan*—rather ticklish. *Golden Chasselas*—too small for general cultivation, as is also *Black Frontignan*.—P. Q. R., *Queens, Queens Co., L. I.*



AUSTRIAN OR BLACK PINE—PINUS AUSTRIACA.

#### THE AUSTRIAN OR BLACK PINE.

THIS beautiful and hardy evergreen was introduced into England in 1835, and is now more extensively propagated there than any other foreign pine. It is perfectly hardy here, and has been extensively planted. It well deserves its popularity. No grounds are complete without it. The annexed engraving is taken from a beautiful specimen growing in this city. The artist has hardly done it justice. The most striking peculiarity of the tree is that the branches are produced in regular whorls, at first inclined upward toward the trunk, then spreading horizontally, and finally drooping at the extremity. In full grown trees, the top becomes flat and spreading to a great extent. The bark of the shoots of the current year is of a greenish yellow, regularly and deeply raised by the insertion of the leaves, furrowed, and shining.

The Austrian pine prefers a deep, calcareous

sand; but it will succeed in any soil, provided it is loose; and it even loves a moist soil, if not too wet. It thrives best in situations having a southern aspect. It has remarkably large, deep-penetrating roots, and grows with great rapidity when young. Mr. LAWSON, of Edinburgh, who first introduced this pine into Great Britain, states that he sowed the seeds on light sandy soil, and at the end of the first season the plants were twice as large as those of *P. sylvestris* (Scotch Pine) sown at the same time in the same soil. In this country, its general rate of growth is about the same as the Scotch Pine. In Austria, it attains the height of 100 feet and produces a strong, resinous, and superior timber, much valued when kept dry; and is said to surpass even the larch in resisting the injurious effects of water, or of alternate moisture and dryness. It thrives well at great altitudes, and is perhaps the hardiest of all pines.

CULTIVATION OF THE GRAPE.—No. 4.

The foregoing remarks are more applicable to the culture of the *Catawba* grape in the Western States; but it is a very precarious grape in New York State. On the other hand, the *Isabella* has been found not to do so well in the Western States as the *Catawba*, or when stubbed down every year to a mere stump, as is necessary when trained to one stake three or four feet high; but it is remarkably well adapted to the State of New York, and to trellis training.

I will here give one or two cuts of trellis training, well suited to the *Isabella*, which are remarkable for their simplicity. The preparation of the ground, and the treatment of the vines for the first two years, are the same as recommended above. The vines are planted ten feet apart in the rows, and the rows six feet apart, running east and west. In the spring of the third year, the vine is cut down to eight or ten inches in height, the posts are set midway between the vines, and the wires fixed. During the summer, two canes are trained up across the wires, and let grow to their full length, the laterals being pinched off during the summer, as previously recommended. At the winter pruning of the fourth year, the canes are cut to five feet in length, and tied down horizontally to the bottom wire, as in fig. 20. During the summer, shoots must be trained from these horizontal canes, at fifteen to eighteen inches apart, and carried up perpendicularly and carefully secured to the wires. These shoots will all show fruit, and cane *b* may be allowed to bear. When it has grown seven or eight leaves in length, it must be pinched to two or three leaves above the highest bunch. Cane *a* must have all its fruit cut off, and be allowed to grow to its full length, or one or two feet above the highest wire, when it may be stopped. In the spring of the fifth year, cane *b* is cut out to the lowest good bud, and cane *a* is cut back to the highest wire. This summer, cane *a* is allowed to bear fruit, as indicated, and cane *b* at the same time is trained up from the spur. In the spring of the sixth year, cane *a* is cut out to the line drawn across it, and a new cane trained up from its spur while cane *b* is bearing fruit. Thus, no cane is ever

of trimming the canes, and section 2 another. Section 1 is more applicable to a higher trellis—say six or seven feet,—while section 2 is only adapted to about five feet, from its being more heavily cropped. The trellis represented is only four feet high from the ground, with bearing canes three feet in length. These can very easily be carried one or two feet higher.

Fig. 21 shows another mode of training, the principle of which is the same as the preceding, with the advantage of the vine being more slowly and regularly increased, and without the necessity of such a great bulk of the vine having to be cut away every year. In the former method, all the

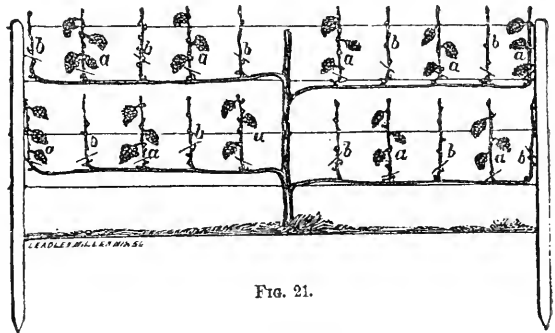


FIG. 21.

largest canes have to be cut away every year; while in this we cut away only the small wood, and the great bulk of the vine remains. This mode of training is readily seen from the cut. In the summer of the third year from planting, two horizontal canes are trained to the bottom wire, and one straight up the middle. In the spring of the fourth season, the upright cane is pruned down to two feet above the horizontal canes. When the vines have begun to grow, and it is sure the three upper buds are safe and secured to the wires—two horizontal and one upright—the other buds lower down the center cane are rubbed out. The two lower canes are pruned back to five feet in length, the width of the trellis. During this season, while the second tier of horizontal canes are growing, the lower are throwing up shoots (marked *a*, *b*). These shoots will all show fruit; and those marked *a* are allowed to bear, while those marked *b* must have their fruit all cut off. In the winter of the fifth season, these shoots, *a*, *b*, are pruned down to the lowest good bud (indicated by the line drawn across them). The two upper horizontal canes are pruned in to five feet, or the width of the trellis, as the lower ones were last season. This (the fifth) season, the shoot from spur *b* is allowed to bear, while that from spur *a* is allowed to rest. Thus, each alternate spur is made to bear and rest each alternate year. If this vine be carried up three tiers high, it will then be about seven feet high from the ground to the top, which is high enough for any man to stand on the ground and work at.

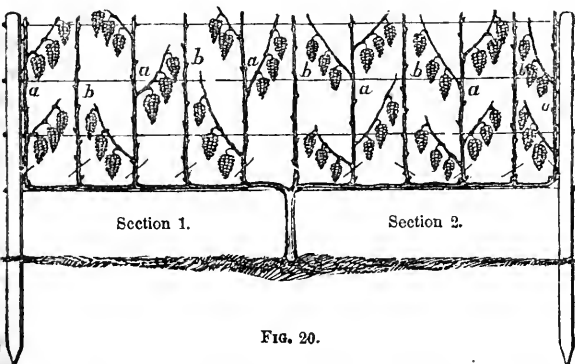


FIG. 20.

to bear twice; new wood is supplied every year for bearing the next, which always gives the finest fruit. Section 1 in fig. 20 shows one mode

I have no doubt that these modes of training may seem a little tedious to the uninitiated; but, when



understood, they are as simple as any other; and no one who can not exercise judgment, care, and skill, has any business in a vineyard. It may be an objection that wire trellises will be too expensive to warrant their erection. They may be more expensive, in the first instance, than staking out the vineyard with stakes; but in the end they will be the cheapest. The annual attention required in re-fastening the stakes, and taking out bad ones and supplying their places with new ones, will soon add up to the cost of the wire trellis; and the trellis, if well set, will last a great many years.

The French, near Fontainebleau, have a cheap way of making very good and durable trellises, for the raising of table grapes upon. They set posts of locust, about three or four inches in diameter, two feet in the ground and six out, and about eight or ten feet apart. They then tie across the posts strips of white oak or ash, about one inch thick and ten or twelve feet long. These strips are split out in the same way that we split out hoops for flour barrels. They are tied to the posts with annealed iron wire, which is bound round and twisted tight.

JOSIAH SALTER.

Rochester, N. Y., March, 1859.

### THE WINTER CHERRY.

THE Winter Cherry (*Physalis viscosa*) is an annual of the *Physalis*\* family. It is of the same habit as the tomato in growth. It grows anywhere in the United States, and is used in various ways—for pies, preserves, pickles, &c. The fruit grows in an inflated calyx or husk, is about the size of a Catawba grape, and of a light yellow or transparent color. It falls to the ground when ripe, and the fruit may easily be seen through the husk. It has various names, such as ground cherry, cape gooseberry, tomato gooseberry, strawberry tomato, &c. The name winter cherry is given it from the fact that it will keep three or four months without any preparation, by just keeping it in the husk. We have some of the fruit now (Feb. 7th) as fresh and good as when it was gathered from the plants, although it has been frozen several times.

It should be planted early, if you want early fruit. It can be planted in a box in the house, or in a hot-bed, and then transplanted into the open ground, about two and a half or three feet apart, and then cultivated the same as the tomato. Planted in good, rich ground, and well cultivated, it will produce from a pint to a pint and a half per plant; and I think we have had some plants which have yielded a quart or more. The plants do not come up for three or four weeks after planting, and it does not grow very fast the first three or four weeks after it comes up; but after it gets fairly started, it grows very fast.

It is excellent when eaten raw, and makes a preserve very much like honey. To preserve it, add a pound of sugar to a pound of fruit, and cook together till you think it is done, and then add a few

drops of the extract of lemon, or a medium-size lemon, to every four pounds of the preserves. For pickles, take the fruit when nearly ripe, put it in vinegar, with spice and sugar enough to suit the taste.

When once introduced into a garden, there is no fear of losing it, as it will, like the tomato, grow from seed left in the ground all winter. We think any person who tries it once will not be willing to be without it again. It takes the place of many of the smaller fruits for the various ways in which it is used. It is easily grown, and any person who wants fruit can have plenty by planting the seed. There are many varieties of it—some good and some not. It is found growing wild in many parts of this State, and I suppose in other States.

I advise every one to plant seed of the winter cherry, if they can do so; and I think they will not regret the time and trouble expended in raising it, provided they get the true kind and have cooked right.

F. A. FLEMING.

Curwensville, Clearfield Co., Pa., 1859.

REMARKS.—We are compelled to conclude that our correspondent, from the high estimation placed on this plant, can not have a good supply of the small fruits, such as the many good strawberries that are now cultivated; the new varieties of currants, such as *Cherry*, *White Grape*, *White Dutch*, &c.; of *Brincklé's Orange* raspberry, or the *Autumnal Bearing*, *Belle de Fontenay*, and *Meveille de 4 Saisons*; of the *New Rochelle* and *Dorchester* blackberries; of *Houghton's Seedling* gooseberry; and many other valuable fruits that might be mentioned.

The *Physalis viscosa* we know very well, but could never discover anything in it which would entitle it to cultivation while a currant bush or wild blackberry could be made to grow in our garden. Its keeping qualities are certainly no better than those of our native grapes; and the same attention paid to a grape vine as would be required by half a dozen of these plants, would probably be productive of ten times as much fruit.

The winter cherry, however, is not without qualities which recommend it to those who are not well supplied with other fruit; and we should infer from the advertisements of the gardeners about Chicago, that its full merits are appreciated by the denizens of the Queen City of the West.

RABBITS AND TREES.—A. WOOLLEY says, in the *Prairie Farmer*, "Lay a coat of mud on the part of the tree barked by the rabbit, extending an inch above and below the injured part; lay it on one or two inches thick; wrap the mud on with cotton cloth, and tie with a string. If the trees have not become dry, it will save them, provided it is kept on long enough."

\* *Physalis* is the name of the genus to which this plant belongs. The natural order or family is *Solanaceae*, to which belong the common potato, tomato, red pepper, and egg plant; as also tobacco, the petunia, bittersweet, deadly nightshade, and other well known plants.

### AMERICAN TREES AND TREE-PLANTERS.

THERE has always been a party in this country, with views and feelings opposed to the destruction of our native forests. At first small, and little heeded, this party has gradually increased, until it now numbers its thousands. Their fitting title could be that of American Philarborists or Tree-lovers. Their doctrine is that trees have economic and aesthetic uses which entitle them to be respected in the forest, and largely planted in orchards, avenues and parks. They claim that trees make generous returns for the room they occupy. The close relation of trees to the public prosperity, is seen in the present difficulty of finding sufficient water for the Erie Canal. The enlargement of the canal and its business requires more water than formerly, when, in fact, the supply is alarmingly deficient. There is one reason for this deficiency—the wasteful cutting down of forests on the hillsides, whence flow numerous small streams that unite to fill the vast aorta of our inland commerce. The destruction of trees not only diminishes the absolute quantity of rain, but prevents its accumulation in springs, shaded valleys, and swamps. A bare hillside will shed water like a roof. Let the trees remain as nature intended, and the same soil becomes a sponge, absorbing the rain as it falls, and sending it down little by little to the thirsty lowlands. In the early stages of our country's growth, little attention was paid to the culture of trees. The names of the pioneer Philarborists are few, and their chief encouragement seems to have come from across the Atlantic. There is a queer old house still standing on the banks of the Schuylkill, that might be called the Cradle of American Botany. It was built by JOHN BARTRAM, who founded the first Botanic Garden in this country. BARTRAM, as an honest Quaker, little noticed at home, but honored abroad, as a collector of rare trees and plants. He kept up an active correspondence with eminent savans in England. Dr. DARLINGTON's recent publication of these letters created a pleasant fervescence in the literary circles of Europe and America. ANDRE MICHAUX, and his son FRANCIS ANDRE MICHAUX, should be remembered. They were botanists, and served the French government. Let most of their scientific labor was performed in this country. They were heartily attached to American institutions. They sent home about sixty thousand trees and plants, with many boxes of seeds, as the result of their searches in our nation's wilds. The younger MICHAUX lived to be eighty-five, and spent his last days in planting a group of American trees. His *North American Sylva*, recently edited by J. JAY SMITH, of Philadelphia, has no equal on the subject which it treats. He bequeathed \$22,000 to Societies in Boston and Philadelphia, for special purposes connected with the propagation of useful trees.

Among the early Pomologists, WILLIAM COXE, of New Jersey, stands foremost. His work on the cultivation of Fruit-trees was prepared without much help from previous authors, and is still appealed to as reliable authority. Mr. COXE sent specimens of the *Seckel* Pear to the London Horticultural Society, of which he was soon after elected a member.

The name of DOWNING is dear to every lover of rural improvement. His *Treatise on the Theory*

and Practice of Landscape Gardening, published in 1841, gave him a solid and brilliant reputation on either side the Atlantic. The book was thoroughly practical, yet all alive with poetry and sparkling sentiment. It was read like a romance, and removed the scales from eyes previously blind to the beautiful in trees and landscapes. The youngest son of a gardener on the Hudson, Downing was so reserved in his habits, that few suspected the rare qualities of his mind, before his appearance as an author. He had grown up as a neglected seedling might have done in an out-of-the-way corner of his father's grounds until its rich ripe fruit caught the gaze of passers-by, and pregnated the air with daintiest aroma. DOWNING was thought, by some, to be unsocial and haughty; yet there never lived a man more intensely American. It was a favorite idea, with him, that America was entitled to a style of Architecture distinctly its own, and suited to our climate, scenery and habits. The working out of this idea is clearly seen in his *Essays and Drawings*. He was partial to American trees, and often exposed the folly of preferring such exotic impositions as the *Ailanthus* and the *Abele*, to the *Maple*, the *Elm*, and the *Liriodendron*. His whole life, genius and ambition, were devoted to the elevation of his countrymen, to the improvement of their homes, and the multiplying of their ennobling pleasures. His premature death, in 1852, so painfully remembered with the burning of the *Henry Clay*, was an irreparable loss to American literature and art.

Living Philarborists are doing much, at this time, to promote the knowledge and culture of desirable trees. Never was there a period when so much of capital, enterprise and research was given to this most important branch of national industry. The peculiar and promising feature of the present enthusiasm in tree-culture, is that its friends are forming themselves into groups, for particular studies and experiments. In the cultivation of Pears, MARSHALL P. WILDER, of Dorchester, Mass., takes the lead. He has rendered his countrymen an important service by testing, under his personal inspection, hundreds of imported varieties, a large proportion of which were found to be unsuitable for this country.

HENRY W. SARGENT, of Fishkill, has honorably won the position of an oracle on Evergreens. Ornamental planters are waiting with impatience for the promised work that shall embody the results of his large experience with Evergreens imported from foreign nurseries.—*Ex. from Prof. NORRIS's Address before N. Y. State Ag. Society.*

### THE PEACH IN ILLINOIS.

NORTH of about 36° the peach tree is always more or less tender; and were it not for its habit of bearing while young, it would be folly for us of the North to plant it; and yet no fruit pays better, when you get it; and up here we most always have fruit when there are flowers. So far the fruit buds have winter-killed much oftener than the tree; though I have seen three large crops and some partial ones in this vicinity, and a few trees 12 to 15 years old, previous to 1856, when all were killed; and for that matter there was a pretty general winter-killing once before—about 1842. One good

crop may be counted on, even here, and that will pay for the trees and more too. Far south it is the most profitable fruit in general cultivation.

The peach likes a warm, light loam, deep and dry, not so stiff as good pear soil, but much like it otherwise. It will do well, however, on almost any well elevated grounds south; while here the highest, driest, and "poorest" prairie knolls, or hazle and tree-sprinkled "barrens" should be selected, when practicable; and soil that is "poor" in nitrogenized matters, always; for a large growth and a late growth of wood are to be avoided. On such soils, the peach is perhaps better without underdrainage than any other fruit tree. Best plant on or quite near the surface, however, and raise the earth over the roots to support the tree in its place. Plant trees to make low heads, and never more than one year old, if you can well avoid it.

The nectarine, which is but a smooth-skinned peach, comes in here. For varieties, you can depend on the books and catalogues, always remembering that some good sorts for the South will not ripen here.—J. A. KENNICOTT, in *Prairie Farmer*.

#### REMEDY FOR THE CURCULIO.

"To one pound of whale oil soap, add four ounces of flour of sulphur. Mix thoroughly, and dissolve in twelve gallons of water.

To one half peck of quicklime add four gallons of water, and stir well together. When fully settled, pour off the transparent lime water, and add to the soap and sulphur mixture.

Add to the same, also, say four gallons of tolerably strong tobacco water.

Apply this mixture, when thus incorporated, with a garden syringe, to your plum or other fruit trees, so that the foliage shall be well drenched. If no rains succeed for three weeks, one application will be sufficient. Should frequent rains occur, the mixture should be again applied until the stone of the fruit becomes hardened, when the season of the curculio's ravages is past."

THE above, being highly recommended, is copied from the *N. Y. Observer*. A correspondent of that paper, having tried the preparation on part of his trees, secured a good crop of fine fruit, while on those to which it was not applied no fruit was matured. Will not fruit-growers generally give it a faithful trial the coming season, and publish the result? I intend to test its efficacy, and will report accordingly. JOHN BRADFIELD.

**STRAWBERRIES ON THE PRAIRIE.**—This fruit will grow on any good deep soil, if not too wet; and yet it seems to like permanent moisture. Perhaps a deep, moderately rich, clayey loam, is best. Virgin prairie, broken up in May or June, trenched in October or November, and set in vines the next March or April, has given large and cheap crops. Manure is seldom needed, and deep culture rarely fails to pay. *Necked Pine* and *Large Early Scarlet* are among the hardest and easiest to cultivate on the prairies, but are scarcely so desirable as many of the larger sorts, hardy enough with a slight winter protection north, and mostly quite hardy south. For a choice of sorts, consult books and periodicals. *Hovey's Seedling*, *Burr's New Pine*, *McAtee's Superior*, *Crimson Cone*, *Longworth's Prolific*, &c., have earned a good reputation West, and some of the newer sorts, like *Wilson's Albany*, &c., are very promising here.—J. A. KENNICOTT, in *Prairie Farmer*.

#### DOES IT PAY TO HIRE A GARDENER?

I AM a farmer with 150 acres of cleared land with orchards, etc., as good as my neighbors; but I was not quite satisfied with my garden. It was to be sure, as good as those of my neighbors, but I wished the garden better. The soil and situation were good, I had worked it, yet I was not satisfied. I hired a gardener in April, 1857, and in keeping a correct account of loss and gain found myself minus some \$17. In looking back, I thought I could see where I had missed it, and not to be discouraged at one failure, I made a second attempt in 1858. This year I find the debt and credit pages are quite different from the former. I now find myself the gainer to the amount of \$23.50 in 1858 besides the constant supply and use of many articles for the table, not taken in the estimate. The great enjoyment of the many delicacies in garden yields when a friend visits me, and occasionally to make a present of a dish of strawberries, gooseberries, or a few melons, as circumstances seem to justify, gives such a true relish to life that I shall pay more attention to my garden in the future.

I believe my brother farmers are the losers by neglecting the garden. I know that I have lost by such neglect, and by the well known rule, judge others by myself. The garden pays full as well as the field. At or near the close of 1859, you may hear from me further on this subject.

A CANADIAN FARMER.

#### RAISING EARLY PLANTS.

MESSRS. EDITORS:—I notice in the March number of the *Farmer*, a plan for raising early plants in the shells of turnips, and no doubt they would answer a very good purpose; but a much more complete way for raising early plants for transplanting in the garden, is to make small boxes of common siding, say seven inches wide. Plane one side of the board, which is to form the inside of the box, then make your boxes from six to eight inches across the top, so as to suit the size of the plants that you want to put in them, and about one inch larger across the bottom, so that the box will slip up from the hill without any difficulty. The boxes are to be made without any bottom, and should be placed upon a shingle or thin piece of board, with one end shaved thin, so that it can be drawn out from under the box without disturbing the dirt or the roots of the plant. I have used this kind of boxes for the last two years, and find that they answer the purpose to my entire satisfaction. The boxes when in use should be kept in the hot-bed or in the kitchen; and if kept in the latter place, they should be kept as near the top of the room as possible, upon a shelf fixed for that purpose, as the heat is always greater near the top of the room than in any other place, and also more regular. THOS. O. HAGAMAN.

Bronte, C. W., March 24, 1859.

MULCHING is one of the best means of preventing mildew on the gooseberry, and it is quite probable that sulphur scattered on the leaves will be as beneficial as it is in checking the mildew on grapes. Have any of our readers tried it? If so, we should be glad to hear from them.

## Ladies' Department.

### ORIGINAL DOMESTIC RECEIPTS.

Written for the Genesee Farmer by various Correspondents.]

**LEMON PIE.**—The juice of four lemons, six soda crackers rolled fine, four tea-cups of water, three tea-cups of sugar.

**HEALING SALVE.**—Take rosin, mutton tallow, and linseed oil, equal quantities; mix and melt; to be spread on linen when applied.

**TO TAKE OUT INK STAINS.**—Soak the article in sweet milk one day or more, then put on a little salt and rub it if not soaked out.

**TURNIP PIE.**—Take a turnip and pare and boil it; add a tea-spoonful of tartaric acid and a cup of sugar; season and bake as an apple pie.

**A REMEDY FOR ANTS.**—Dip a sponge in water, squeeze it dry, lay it on the shelf, sprinkle sugar on it and when the ants collect throw the sponge into hot water.

**BEER.**—One gallon hot water, one quart molasses, filtered well; 15 drops oil sassafras, 10 drops spruce, 10 drops oil wintergreen; add one gallon cold water, and yeast.

**TO MAKE GOOD BLACK TEA.**—One teaspoonful for each person; pour cold water on the tea, and let it come to the boil, then add boiling water, a sufficient quantity for the number of persons.

**CURE FOR WARTS AND CORNS.**—The bark of a willow tree, burnt to ashes, mixed with strong vinegar and applied to the parts, will remove all warts or excrescences on any part of the body.

**BUNS.**—Three cups milk, one cup yeast, one cup sugar, and flour to make it a sponge; let it rise over night, then add another cup of sugar and one of butter; mould them into small biscuit.

**TO MAKE VINEGAR.**—Take one gallon each of molasses and whiskey, water thirty-six gallons, cider five gallons, brewer's yeast one half gallon, and expose to the temperature of about 77 degrees.

**SALT PORK CAKE.**—One pound salt pork, chopped fine, pour on a tea-cup of hot water; one quart of flour, two cups of sugar, one cup molasses, one teaspoonful saleratus; spice with cloves and cinnamon.

**TO PRESERVE EGGS FRESH A YEAR.**—Mix a handful of unslaked lime with the same quantity of salt, in three gallons of water; first pack the eggs, with the small end down, with some shavings to keep them down, and pour the mixture over them; be sure none of them are cracked.

**RECIPE FOR YEAST.**—With a quantity of good malt take a handful of hops, boil the same, leaving two quarts of water when boiled, which is to be poured upon the following ingredients:—Two tablespoonfuls of salt, half a tea-cup of sugar, a little ginger, four good sized potatoes grated raw, two tea-cups of flour. The whole, when light, to be corked and kept in a cool place.

**LINIMENT FOR BURNS, WOUNDS, OR GALLS.**—Take of tanner's oil and spirits turpentine one pint each, oil of tar and oil origannon one ounce of each; mix in a stone jug, then add half an ounce of oil vitriol, a few drops at a time; let it stand twenty-four hours, then it is fit for use. This is excellent for man or beast.

**CUDBEAR.**—A very quick and pretty color, for children's every-day wear of flannels and hosiery, can be made by using a sixpence or shilling's worth of cudbear, in the following way: Tie the cudbear into a cloth or bag; soak a few hours or over night in brass, then heat it, and put into the dye enough soft soap for a weak suds, and it is better to dissolve a little alum in it. Wash the articles in soap suds and put them into the dye; let it boil, stirring and airing frequently. When colored to your fancy, wash in good soap suds: can be put back if not dark enough. It dyes light colored soiled silk, and old white ribbons, a very delicate lilac color; woolen, a pink or purple; parametta, a cinnamon color; all wool delaine, a sort of maroon. It does not crock, but the color will not last good or wear long. It must never be allowed to freeze, or dry in the hot sun, for that fades it more.

**TO DYE A VERY DARK BLUE.**—Add to a common indigo dye, one tablespoonful of madder to one ounce of indigo.

**TO DYE SLATE COLOR.**—Boil green chestnut bark one hour; take out the bark, and add four ounces green vitriol for one pound woolen yarn or cloth; stir frequently one hour; dry before washing.

**TO DYE SILK A RICH BROWN.**—Boil chipped logwood in pure water one hour; put in your silks or ribbons, and stir them frequently for half an hour; dry them, wash in soap suds, and iron them quite damp. No mordant is used.

**TO DYE SILK, OR WOOL, AN ORANGE COLOR.**—Boil the skins of ripe onions half an hour; take out the skins, and add one ounce of alum to one quart of dye; put in the silks, stir often for half an hour; dry, wash, and iron quite damp.

**TO COLOR WITH BUTTERNUT.**—Soak butternut bark in warm water some time previous to coloring. Wash the articles, being very careful to get out all the grease-spots; then thoroughly rinse in clear water, (that it may be free from soap,) and put in wet into the dye, which should be scalding hot, but not boiling; air frequently, till sufficiently dyed; dry before washing. It dyes different shades in different seasons of the year. After washing the articles, press them wet, on the wrong side, and iron till dry.

**TO COLOR BLACK.**—Take one ounce of vitriol to two ounces of extract logwood; put a sufficient quantity of water in an iron kettle to dissolve the logwood in; dissolve the vitriol in a brass kettle. Wash whatever you color in very strong soap suds, and wet thoroughly in the vitriol water, wring them out, and turn the logwood into the vitriol; put the articles in, let them nearly boil, stir and air them as the color requires. When a good black, dry and wash well in strong soap suds, and rinse in several waters, otherwise it will crock; press while wet. This colors well lace, silk, worsted and cotton, and is not apt to fade.



**THE WEATHER.**—The weather must be a subject of daily interest. So numerous and important are its relations to the pursuits of men, that it would be more than stupidity to be unaffected by its changes. Still, the particulars can not be retained in our memories. We have no reliable resource but the records of meteorologists. These give us the variations of heat, or temperature, the great moving power; and the fall of water, the next great element of importance. Living in a country of such variation in the seasons, and with the obvious adaptation of the seasons to the welfare of man, we can not but expect great uniformity of climate amid the great variety. Though men seem disposed to consider chiefly the variations and to magnify the extremes, the records of meteorology compel us to believe in the great uniformity of action of all the agencies that can affect the climate of any particular place or section of country. With all the diversities of climate over the earth and in the different zones, whether torrid, temperate, or frigid, of every habitable region it has been true, and it is true in this year, that “seed-time and harvest, and cold and heat, and summer and winter, and day and night, shall not cease.”

Consider some of these results :

The average heat at Rochester for 22 years is.....	47.4°
“ “ “ of the whole State is nearly.....	46.7°
“ “ “ at Albany is.....	43.4°

The mean heat of the several months is

	At Rochester.	For the State.	London, Eng.
January.....	25.4	24.7	36.4
February.....	24.5	24.1	38.3
March.....	31.8	33.4	42.0
April.....	44.5	45.3	49.9
May.....	55.9	56.2	55.2
June.....	66.5	65.6	58.9
July.....	77.2	69.7	61.4
August.....	68.6	68.5	59.1
September.....	60.5	59.9	56.5
October.....	47.9	48.8	49.9
November.....	37.8	37.7	42.7
December.....	27.8	27.4	39.1

Our temperature is very near that of the mean heat of the State. The extreme annual range is near three degrees above or below the average, though the common variation is less than two degrees in the annual temperature.

The average heat, for the twenty-two past years, of the

Spring months, is.....	44.1°
Summer “.....	70.8
Autumn “.....	48.8
Winter “.....	25.9

The average of the months, for forty-seven years, at London, as given in the above table, where the annual mean is 49.9°, shows a great difference.

The average quantity of water which fell here, in rain and melted snow, for the twenty-two past years, is 32.2 inches. The average of the State, about 34.9 inches.

The average water here, for the several months, is for

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
2.05	1.93	1.93	2.33	3.03	3.27	3.17	2.60	3.29	3.19	2.53	2.58

The average for the

Spring months is.....	7.28	inches.
Summer “.....	9.04	“
Autumn “.....	9.81	“
Winter “.....	6.57	“

The water of 1858 exceeded the mean by 3.7 inches. The average water at London, Eng., for forty years, is 20 inches, and has varied from 12 to 24 inches.

**Weather for 1859.**—*January.*—January was unusual mild, though a cold period prevailed from the 8th to the 11th, and the thermometer went down to 12° below zero. No sleighing.

*February.*—February was cooler in the first half, and much warmer in the last half; so that the average was near 5° above the mean for twenty-two years. The coldest was not lower than 11° above zero in the month. The two months have been very warm and pleasant. In 1857 January was warm as last January, but February was much colder. Very little sleighing this month. Quantity of water below the average for both January and February. Very little ice has been formed on our waters this winter.

*March.*—March was another warm month—more than 7° above the average, and the lowest was 14° above zero. Water rather above the average. Storm of rain and snow on the 6th, which carried off the snow from the eastern part of this State and of New England, thus closing the sleighing which had continued for 99 days in much of that section, and for 106 days in some parts of it; and had been long at Utica and in St. Lawrence county, Saratoga, and far north into Canada. On the 18th at 19th was a violent storm of snow and rain and a heavy gale, in which the barometer fell lower than for many years at least, here being 28.14 inches—nearly half an inch lower than known at Rochester before. No depth of ice in March. Robins and early birds appeared in the first week of the month; blossoms of the soft maple on the 12th, and abundant a few days later—about two weeks earlier than usual. First steamboat from New York to Albany on the 9th.

The heat of each of the first three months of 1842 a little exceeded that of the past three months, and the average was of course a little greater. All the indications of the warm season, as birds, flowers, flies, and butterflies, were equal to those of this year. The average heat of the first three months was

	Jan'y.	Feb'y.	March.
In 1842.....	29.61°	31.05°	39.77°
“ 1859.....	28.35	30.00	39.30

In no other year, for twenty-two years, does the heat of these three months so nearly agree.

*First Half of April.*—The mean of this part of April is 40.93°, and the mean the same half for twenty-two years is 40.34°. This is not so warm as last year for these two weeks, but is warmer than in 1857 and 1856. Adequate rain has fallen in the last six weeks. Grass and wheat seem to be starting earlier than common, and the latter is now very fine in the surrounding country. The farmer can begin his agricultural operations rather earlier than usual. It is yet to be seen, as we apprehend, whether the vegetation will be more advanced at the end of this month than it was at the close of April last year.

The small quantity of ice formed over the country this past season is remarkable. Importation of ice from the Hudson, it is said, is resolved upon for the supply of our citizens. Even at Marquette, on Lake Superior, lat. 44 deg. 32 min., very little ice has been formed. No other proof is needed of the unusual warmth of the last winter.

APRIL PREMIUMS.—Our April Premiums, for the great number of subscribers sent in on or before the 15th April, have been taken as follows:

McKinstry & Bros., Fredonia, N. Y.,	\$20 for 141 subs.
J. D. Palmer, Thurlow, C. W.,	19 " 123 "
I. W. Briggs, Macedon, N. Y.,	18 " 95 "
S. Woolpert, Chili, Ind.,	17 " 74 "
John Dorr, Scottsville, N. Y.,	16 " 73 "
Capt. Converse, Wilkesbarre, Pa.,	15 " 70 "
C. W. Oliphant, G. S. L. City, Utah,	14 " 65 "
D. Williams, Harmony, N. Y.,	13 " 55 "
W. S. Miller, Saginaw City, Mich.,	12 " 54 "
G. B. Whiteside, Brockport, N. Y.,	11 " 53 "
D. Paul, Martinsburg, Ohio,	10 " 46 "
J. Singer, Johnstown, Pa.,	9 " 43 "
C. C. Kelly, Aurora, Ind.,	8 " 36 "
W. G. Thompson, Buffalo Run, Pa.,	7 " 34 "
Samuel Kelley, Mt. Pleasant, Pa.,	6 " 30 "
J. W. Robson, Telfer, C. W.,	5 " 29 "
R. J. Everitt, Modena, N. Y.,	4 " 26 "
G. W. Reynolds, Bushville, N. Y.,	3 " 25 "
D. S. Wood, Saline, Mich.,	2 " 24 "
A. White, Bluffton, Ind.,	1 " 23 "

Our friends can draw on us at sight for the amounts, or we will send it by mail, or in any other way they may signify.

TO OUR FRIENDS EVERYWHERE.—One more number includes the present half-volume of the *Genesee Farmer*. The next half-volume commences with the July number. In order to introduce the paper into districts where we have no new subscribers, we have concluded not only to make subscriptions for the coming half-volume, but also to offer a very liberal List of Premiums to those of our friends who are willing to act as agents in obtaining and forwarding the names of subscribers. There are thousands of farmers who are not now taking any agricultural paper, and a little effort will enable any one to get up a good list and secure one of the largest Cash Premiums. Or Terms, Premiums, &c., see the last page.

Will not our friends everywhere, and especially where we have few subscribers, oblige us by presenting the claims of the *Genesee Farmer* to their neighbors. By so doing they will lay us under renewed obligations, and readily increase our circulation and influence.

WHEAT IN CANADA.—Mr. J. M. PATTERSON, of Richmond Hill, C. W., writes us, April 11:—"Wheat is looking extremely well. In a journey of some 150 miles, east and west, through the Province north of Lake Ontario, I hardly saw a poor field of wheat, where the land was properly drained of surplus water."

THE crop of turnips, mangel wurzel, &c., in Great Britain, is estimated at twenty million tons.

WHEAT PROSPECTS.—Notwithstanding the constant exposure of the wheat, and the alternate freezing and thawing for the last eight weeks, our prospects are good for the present. If the weather proves favorable to its growth and early maturity, we may escape that detestable pest, the midge. During the past month I have seen thousands of acres of wheat in Canada, and, except the late sown, and that on low, heavy soils, it looks remarkably well. Courage and patience, farmers. There are "good times coming—wait a little longer."—R. W. S., *Woodstock, C. W.*

THE *Gardener's Monthly* is the title of a monthly horticultural journal published at Philadelphia, and edited by THOMAS MEEHAN. Mr. M. is an experienced horticulturist and an able and practical writer, and his paper is destined to occupy the first rank among the horticultural periodicals of the day. It deserves a large circulation. Price \$1.00 per annum.

SMALL EGG.—N. KENTLER, of Greece, N. Y., has shown us an egg, laid by a Cochon China hen, which is little if any larger than a robin's egg. It weighs only 2 penny-weights and 18 grains. When the "hen fever" was at its height, we often saw statements of large eggs from Asiatic fowls, but never recollect seeing an account of one so small.

"HOW TO DO GOOD AND GET PAID FOR IT."—Read our List of Premiums, on the last page, for the greatest number of subscribers to the next half-volume of the *Genesee Farmer*, and then ask your neighbors and friends to subscribe. By so doing, you will benefit us, the cause of agriculture, your neighbors, and yourselves.

CROPS IN OHIO.—Wheat generally looks well. Peaches are not killed. Grain of all kinds except oats was a tolerable crop last year in Richland Co.,—some wheat and corn very good; but through the north-western portion of Ohio it was a grievous failure. In a journey of 300 miles, I saw very few crops of corn out of Richland Co. If other parts were like that through which I traveled, grain must be scarce before harvest.—C. P., *Mansfield, O.*

#### Inquiries and Answers.

LIME FOR WHEAT.—(New Subscriber.) We should prefer to apply the lime to the "river bottom land" without first mixing it with muck. On dry, hilly land, deficient in organic matter, it might be well to compost the lime with muck. It is a disputed point whether, in liming summer fallows for wheat, it is best to put the lime on early in the spring, before the first plowing, or not till near seed-time. *Theoretically*, we should say the earlier the better, so that the lime would have a longer time to act on the soil, and thus prepare the food needed by the wheat plant. *Practically*, however, so far as our observation extends, it seems to make very little difference.—Apply the lime early, if you can; but if not, apply it late. It seldom pays to apply less than fifty bushels per acre. If your land needs underdraining, you need not expect much benefit from the lime.

BURNING LAND, &c.—(B. BAKER, Ind.) Is not the beneficial effect you speak of, due in a good degree to the ashes left on the soil from the burnt logs?

Some kinds of clay soils are much improved by burning, or rather charring. A little organic matter is undoubtedly dissipated, but other portions are rendered more active. The phosphates and alkalies are rendered more soluble. The practice has been adopted in some parts of England for many years, and is still continued. Investigations have recently been instituted by the chemist of the Royal Agricultural Society, and he thinks the practice one which can be profitably adopted on many clayey soils. That it ultimately injures the soil, we have no reason to suppose.

Woody fibre, such as chips and sawdust, has very little manurial value. It has a good mechanical action on stiff soils, rendering them light and porous. Lime, ashes, &c., decompose woody fibre and other organic matter in the soil.

**CROPS FOR SOILING IN ILLINOIS.**—We are much in want of a summer fodder for our work horses, down in this State—some green, succulent herbage, that would be grateful to their parched mouths, when cultivating the corn, &c., in June. Somehow they do not relish green oats. In the moist, saline atmosphere of England, the lentil, tare, or vetch, succeeds admirably. I have tried it two seasons here, but without success; the climate is too dry for it. Have you or any of your readers tried lucerne? If so, I would like to know with what success; or of any other forage plant that answers the purpose.

The past two seasons have not been good for farmers hereabout, unpropitious weather bringing light and inferior crops. Much sickness, awfully bad and almost impassable roads, have been the prevailing characteristics. Good spring wheat, for seed, is worth here \$1 per bushel; oats, do., 75 cts.; potatoes, do., \$2. Hogs are scarce; many have perished from want of food and the epidemic. The inference we draw is, pork is likely to be dear next fall. Vast flocks of wild fowl are migrating over us to the north, reminding us to get plows and implements into order for this year's campaign. God grant it may be succeeded by more prosperous results than the last two.—*HOW. BILLINGSLEY, Zanesville, Ill., March 18, 1859.*

We hope some of our correspondents will give their views on this subject. In this section, we know of nothing better for soiling horses than red clover. Have a few acres near the barn. Top-dress it heavily in the fall, with well-rotted manure. It will start early in the spring, and furnish an abundant supply of good, succulent, and nutritious food. It can be cut two or three times. But if it is only wanted early in the season, after the first cutting it may be allowed to go to seed, when a large crop may be expected.

We fear lucerne can not be profitably grown where land is cheap and labor dear.

**APPLE TREE BORER.**—(N. G. HARRISON, *Lawrenceburgh, Tenn.*) We suppose the "wood worm" to which you refer is what is more commonly known as the Apple Tree Borer, (*saperda bivitata*), which is a common enemy to the apple tree in all sections of the Union.

The best preventive for these worms is to rub soft soap on the bark about the base of the tree, and at the junction of the lowest limbs, in the month of May, or very early in June in high latitudes.

To rid a tree that is infested with the borer, take a sharp knife and scrape off the rough outside bark of the tree, which may be done without injury, and then the entrance to the hole of the borer may be discovered by a small black spot appearing under the white bark, which is the terminus of the Channel which it has made. By cutting downward into the tree, from this point, for two or three inches, the worm may be found and destroyed.

The use of soft soap, as mentioned above, will be found very efficacious if attended to every year.

**RYE.**—(H. G.) Rye is supposed to be indigenous to the mountains of the Crimea, where it is found wild. KARL KOCK found it on the granite round the village of Dahmil, at an elevation of from 5000 to 6000 feet. The ears were not more than 1 to 2½ inches long. Its native country explains why it is so much hardier than any variety of wheat, the southern origin of which is now nearly certain.

**"IS CORN HARD ON LAND?"**—(HENRY MOYER, *Chester Co., Pa.*) This is a question which involves so many considerations that we can give no satisfactory answer in our limited space this month. We should be glad to hear from our correspondents on the point. What is your own opinion?

**WEEDS IN THE MANURE HEAP.**—(J. NORRISH,) We do not know of anything that can be added to the manure heap to destroy Canada thistles, red root, &c.

**ENGLISH RUSSET APPLE.**—Can you or any of your correspondents inform me why the *English Russet* is never alluded to by any Fruit Growers' or Pomological Society in their reports, as a desirable apple for cultivation, as it is a very hardy tree, an enormous bearer, and will keep the year round? I have heard from parties here, who are acquainted with it and the *Rochbury Russet*, that it is far superior, in every respect, to the latter. BARRY, in his *Fruit Garden*, speaks very highly of it; and, as a profitable market apple, worthy of general cultivation; yet never hear it alluded to, or that it is planted at all in your section. Can you tell me how it is? Is there any reason for it not being cultivated more?—A. S. D., *Delaware, C. W.*

**SHADE OF THE BLACK WALNUT.**—Permit me to ask through your paper, if the shade of black walnut trees will kill fruit trees. I have planted peach and cherry trees several times, for the past few years, so that the shade of the walnut would fall directly on them some part of the day, and as yet have never saved a tree, while other adjoining have succeeded well. Will you or some of your correspondents answer?—Z. B. S.

**ASH AND SMOKE-HOUSE, &c.**—I wish to build an ash house, smoke-house and dry-house to dry fruit in, all combined. The size will be 6 by 8, or 7 by 9 feet, and built of brick. Will some of your correspondents give me the best inside plan, and have it fire proof. There must be chimney and place to set a stove.—P. W. HALL, *Pittsfield Lorain Co., O.*

**SWEET POTATOES.**—Will you or some of the numerous readers of the *Genesee Farmer* inform me which is the best and most economical way of keeping sweet potatoes during the winter season, on a small scale, so as to be good for winter use, and also in order for sprouting in the spring?—J. W. B., *Rossville, Ind.*

**GROUND HAY.**—Will some of your correspondents give me their opinion in regard to ground hay as an article of food for cattle, horses, &c.? Also, if I can grind a ton a day with two-horse power, if it will pay for the trouble?—J. W. H., *Westport, Conn.*

**CEMENT FOR ROOFS.**—Is there any composition for a cement for roofs of buildings that is cheap and durable? If so, how is it made and used?—O. P., *Yorkshire, N. Y.*

#### New Advertisements this Month.

- Agricultural Implements—Wheeler, Melick & Co., Albany, N. Y.
- Prince Albert Potato Sets—M. L. Parker, Lyndonville, N. Y.
- Gladding's Hay Elevator—C. E. Gladding, Troy, Pa.
- Rochester Agricultural Works—A. Gordon, Rochester, N. Y.
- Piano Fortes—Boardman, Gray, & Co., Albany, N. Y.
- Garden Seeds—P. Sutton, Ransom, Pa.
- Peabody's Early Prolific Dent Corn—J. O. Bloss & Co., Rochester, N. Y.
- Top Onions—J. O. Bloss & Co., Rochester, N. Y.
- Nansemond Sweet Potato Plants—Emory Luce, Ashtabula, O.
- Nansemond Sweet Potato Plants—O. S. Murray & Son, Twenty Miles Stand, O.
- Virginia Farm for Sale—G. B. Wallace, Fredericksburg, Va.
- Profitable Employment—Robert Sears, New York.
- Albany Tile Works—C. & W. McCommon, Albany, N. Y.
- Sorghum Sugar Cane—Hedges, Free, & Co., Cincinall, O.
- Hubbard Squash—James J. H. Gregory, Marblehead, Mass.
- Ketchum's Combined Harvester—R. L. Howard, Buffalo, N. Y.
- Cabbage Seed—J. M. Thorburn & Co., New York.
- Prince Albert Potatoes—D. Norton, Jr., Pittsstown, N. Y.
- Blood Stock—William Redmond, New York.
- Country Life—John P. Jewett & Co., Boston.
- Bedding Plants, Dahlias, &c.—C. W. Seelye, Rochester, N. Y.
- Seedling Evergreens—C. W. Seelye, Rochester, N. Y.
- Holton's "Six Weeks'" Potatoes—Charles C. Holton and B. D. Hallow, Rochester, N. Y.
- Langstroth on the Bee—A. O. Moore & Co., New York.
- Farm Drainage—A. O. Moore & Co., New York.



REVIEW OF THE MARKETS.

GENESEE FARMER OFFICE,  
ROCHESTER, N. Y., APRIL 22, 1859.

**FLOUR AND GRAIN.**—Heaviness is the prevailing characteristic of the market for Flour and Grain. Flour has declined to 75 cts. during the past month, with the exception of choice mley Extras, the price of which has been tolerably well sustained. Wheat is not relatively as much lower as Flour. The tendency of both, however, is still downward. Coarse Grain is generally lower, with a liberal supply.

The appearance of the growing Wheat in different parts of the country is spoken of as decidedly favorable, and an increased yield is regarded as certain, if no unpropitious event should occur. It must, however, be borne in mind that it is too early to predicate an opinion as to the future crop. The accounts from England and the continent of Europe are of the same general character. The Wheat plant looks promising, and the weather has been very favorable for spring seeding. The threatening clouds which hover about the political horizon constitute the only misfeature in the otherwise cheering prospect. This, we do not nevertheless admit, is at present a very portentous one.

The crop of Wheat, in this country last year, has been estimated at one hundred and eighty million bushels. We regard this estimate as an extravagant one, similar in character to many estimates made in relation to this matter, misnamed statistics. The above quantity of Wheat would produce forty million barrels of Flour, allowing four and a half bushels per barrel. Suppose the population of the country to be thirty millions—an exaggerated estimate—reduce that number four millions for slaves who probably consume no Wheat Flour, and allow Corn Meal, Oat Meal, Rye Flour, and Buckwheat Flour, to be used, generally, to the extent which would be equivalent to six million more, and we have an equivalent of twenty million using Wheat Flour exclusively. These would consume twenty million barrels a year, allowing one barrel to each man, woman, and child, which may be regarded as a near estimate. Where then is the remaining twenty million barrels of Flour, or its equivalent ninety million bushels of Wheat? We believe the exports of Wheat, and Flour produced to Wheat, from New York, since the first of September, do not exceed one million bushels. New York exports as much, or more, than all other ports together. It may be generally conceded that the Wheat is not in the country? Where then is it? The inevitable conclusion is, that no such quantity has been produced; and although we have seen higher estimates in former years, we believe that one hundred and eighty million bushels of Wheat was never yet produced in these United States in any one year. The next crop has been estimated at one hundred and twenty-eight million bushels. If it should equal this estimate, we believe there will be a larger disposable surplus than has heretofore existed in this country.

**PROVISIONS.**—Pork, under the influence of large arrivals, lower and without animation. Butter is lower. In other articles not much change.

ROCHESTER MARKET.—April 22.

**FLOUR.**—Superfine Western, \$5.00@5.50; extra Genesee and Canadian, \$6.50@7.75; market less firm.

**GRAIN.**—Wheat—but few arrivals, and little doing; white Canadian and Kentucky, \$1.00@1.05; red, \$1.20@1.30. Corn, 60c@75c. Barley, 65c. Oats, 45c@50c. Rye, 75c@80c.

**SEEDS.**—Clover, \$4.75@5. Timothy, \$2.25@2.50. Flax, \$1.50

**PROVISIONS.**—Mess Pork, \$17.00@18.00. Dressed hogs, \$7.25@7.75; retail, 10c. Mutton, 7c by the carcass; retail, 8c@10c. Beef—side, 6c; retail, 8c@11c. Hams, 9c@10c; retail, 12c. Shoulders, 7c@8c; retail, 10c. Lard, 10c@12c. Butter scarce and firm at 19c@20c; retail, 22c@24c. Cheese, 10c@11c. Eggs, 1c. Potatoes, 31c@44c; retail, 5c@6c.

**CATTLE.**—Live weight, 4 1/2c@5 1/2c per lb.

**SHEEP.**—\$5.00@6.00 per head.

**HAY.**—\$7@11 per ton. Advancing.

**WOOL.**—40c@55c per lb.

NEW YORK MARKET.—April 22.

**FLOUR.**—The Market for State and Western Flour is dull. Superfine State, \$4.55@5.50; extra do, \$5.80@6.25; Michigan, Indiana, Ohio, and Iowa superfine, \$5@5.40; extra do, \$5.50@7.40; shipping brands of Ohio round-top, \$6.20@6.40. Southern Flour less active; mixed to good Baltimore, \$10@10.50; Brandywine, \$6.00@6.65; Georgetown, \$6.60@6.75; Petersburg city, \$7@8.25; Richmond city, \$7.40@8.50; Gallego and Haxall, \$9. Canadian Flour, \$6.50@7.40 for the range of extras. Rye flour dull; fine and superfine, \$3.60@4.40. Corn meal in moderate demand; Jersey, \$3.90; Brandywine, \$4.30; pancheons \$19.50@20.

**GRAIN.**—Wheat dull and lower; white Genesee, \$1.50; white Michigan, \$1.55@1.65; white Kentucky, \$1.70; red Western, \$1.42@1.45; Milwaukee club, \$1.25@1.30. Rye firm at 86c@87c. Barley dull; State sold at 75c. Oats dull; Virginia, 46c@48c; Jersey, Delaware, and Pennsylvania, 50c@52c; State, 52c@53c; Western and Canadian, 53c@55c. Corn lower; 88c@89 1/2c for Jersey and Southern yellow; mixed Western, 83c.

**SEEDS.**—Clover—red, 7 1/2c@9c per lb. Timothy—mowed, \$2.25@2.37 1/2; reaped, \$2.50@2.75 per bush. Red top, \$2.62 1/2@2.87 1/2 per five-bushel bag.

**PROVISIONS.**—Pork without animation; new mess, \$17.25@17.37 1/2; old do, \$17; prime, \$12.50; thin mess, \$16; prime mess, \$15.25; clear do, \$19.50@20. Beef in fair demand and steady; country mess, \$7.50@8.75; country prime, \$6@8.7; re-packed Western, \$9.50@11.50; extra mess, \$12.50@13. Low grades of Beef dull. Beef hams, \$15@17.25. Bacon quiet at 9c. Hams, 9 1/2c. Shoulders, 6 1/2c@6 1/2c. Lard, 11 1/2@11 1/2c. Butter—new State, 14c@20c; Orange Co., 22c@25c; Ohio, 8 1/2@12c. Cheese—fair to prime, 8c@10c.

**CATTLE.**—First quality, 11 1/2c@12c; medium, 10 1/2c@11c; ordinary, 9 1/2c@10c; extra, 12 1/2c. The general average 11c.

**SHEEP.**—Average about \$6 per head. Tolerably fair sort, 6c@6 1/2c per lb. live weight.

**HOGS.**—5 1/2c@6 1/2c per lb. gross.

**WOOL.**—Saxony fleece, 55c@62c; full-blood Merino, 55c@58c; 1/2 to 3/4 do, 48c@50c; native and 1/2 do, 42c@45c; extra pulled, 48c@55c; superline do, 45c@48c; No. 1 do, 38c@35c.

PHILADELPHIA MARKET.—April 21.

**FLOUR AND MEAL.**—Superfine and extra, Corn meal, \$6.50; fancy, \$6.75@7.25. Rye flour, \$4.15@4.25. Corn meal, \$3.57 1/2 for Pennsylvania.

**GRAIN.**—Wheat—red, \$1.55@1.56; white, \$1.60@1.65. Rye in demand at 85c. Corn firmer; yellow, 87c. Oats, 52c@53c.

**PROVISIONS.**—Pork lower; new mess, \$17.25; old mess, \$17@17.12; prime, \$12.40@12.60. Beef in moderate demand; country prime, \$6.50@8.7; country mess \$8@9; re-packed mess \$9.25@11.25; extra do, \$12.50@13; prime mess inactive at \$17@21. Beef hams dull at \$14@17 per bhd. Bacon quiet at 8c@10 1/2c. Hams, 8c@9 1/2c. Shoulders, 6c@6 1/2c. Lard quiet at 11 1/2c@11 1/2c. Butter and Cheese firm.

**SEEDS.**—Clover, \$5@5.50 per bushel.

BUFFALO MARKET.—April 22.

**FLOUR.**—In limited demand. State, \$5@5.25; Indiana, Ohio, and Michigan extra, \$5.75@6.25; favorite brands of double extra, \$6@6.75.

**GRAIN.**—Wheat steady with a fair demand; Chicago spring, \$1; Milwaukee club, \$1.15@1.20; Indiana and Ohio white, \$1.40@1.45; Ohio red, \$1.35. Barley quiet; 6c@70c for the range. Rye firm at 90c. Peas—ordinary, \$1.25; Marrowfats, \$1.57 1/2. Corn steady with moderate demand at 79c. Oats dull; Western, 49c; Canadian, 51c@52c.

**SEEDS.**—Clover, \$4.75. Timothy, \$2.25.

**PROVISIONS.**—Steady. Mess Pork, \$16@17; prime, \$18. Shoulders, 6 1/2c. Hams, 9 1/2c; sugar-cured, 10c@10 1/2c. Lard firm at 11c@12c.

CHICAGO MARKET.—April 21.

**FLOUR.**—Firm but quiet. Sales at \$4.50@4.50 for fair to good extra.

**GRAIN.**—Wheat declining with limited demand; winter red, \$1.26@1.27; spring, 91c@94c. Corn, 70c@72c. Oats inactive; sales at 50c.

**SEEDS.**—Hungarian and Timothy in good request at \$1.80@1.85 for the latter, and \$2 for the former.

**PROVISIONS.**—Butter—prime dairy, 18c@22c, scarce and sought after; common dull at 12c@16c. Cheese—supply limited; Western Reserve, 11c@12c; York State, 13c@14c. Eggs, 11c@12c. Potatoes active; choice Meshannocks, 80c@85c; Pink-eyes and Meshannocks mixed, 7c@7 1/2c; Merinos, 7c@6c.

**WOOL.**—Market firm. Merino and Saxony, 40c@50c; super, 88c; No. 1, 83c.

CINCINNATI MARKET.—April 20.

**FLOUR.**—Market heavy and prices easier, with the exception of the higher grades, which are well sustained. Superfine, \$5.60@5.70; extra, \$5.80@6.

**GRAIN.**—Demand steady for Wheat; prime white, \$1.47@1.50; fair to good do, \$1.25@1.43; red, \$1.20@1.25. Corn—demand light, closing dull at 78@79c. Rye steady at 90c. Barley, 60c@65c. Oats declining; 68c@55c.

**SEEDS.**—Market for Clover very dull and prices declined, closing at \$4.50. Flax, \$1.50. Timothy dull at \$2@2.25.

**PROVISIONS**—Market very dull. Mess Pork \$16@17. Bacon 6½¢@5½¢. Lard in demand at 10½¢@11¢ for country and city; keg lard, 12¢. Butter—good demand for fresh at 25¢@25½¢; inferior dull at 9¢@10¢. Cheese—demand fair; prime new, 9¢; and prime old, 9¢@10¢. Potatoes firm at 65¢@75¢ on arrival, and 50¢@90¢ from store.

**TORONTO MARKET.—April 21.**

**FLOUR**—Dull, with no demand for export. Superfine, \$6@7.50; fancy and extra, \$5.50@7. Oatmeal scarce; \$7.50@8.30.  
**GRAIN**—Prime Wheat, \$1.57@1.60; inferior, \$1.30@1.40; spring wheat for seed active at \$1.35@1.50; Scotch Fife very scarce at \$1.60@1.70. Barley—supply limited; 70¢@80¢. Rye scarce at 70¢@80¢. Peas active at 80¢@90¢. Oats firm at 57¢@60¢.

**SEEDS**—Timothy, \$1.75@2.20.  
**PROVISIONS**—Mess Pork, \$17@18; prime mess, \$14@15; prime, \$12@13. Smoked Hams, 11½¢@12½¢; cured, 9¢@10¢; sides, 8¢@9¢. Butter scarce; 25¢@28¢ for the best; tub No. 1, 20¢; No. 2 dull at 12½¢. Cheese, 12¢@12½¢. Potatoes in better supply; good, 70¢@75¢; common, 60¢@65¢. Eggs plentiful at 9¢@10¢. Poultry, 40¢@50¢ per pair.

**CATTLE MARKET**—Beef Cattle, \$8@9 per 100 lbs. for the best beasts; ordinary, \$7@7.50. Calves, \$3 to \$5 each. Sheep scarce and dear; \$5@10 for the best; ordinary, \$6@7. Lambs \$2@2.50 good. Sheep skins, \$1.50@1.75 each; Beef hides, \$8.50@9, firm. Calf skins, 10¢@12½¢ per lb.  
**WOOL**—22¢@25¢ per lb.

**LONDON MARKET.—April 11.**

**FLOUR**—Market dull. American sour, \$4.30@5.50; sweet, —. **GRAIN**—Wheat inactive. American white, \$1.26@1.44; red do., \$1.23@1.35. Indian corn, 57¢@90¢ for both white and yellow. **SEEDS**—Prices remain as previously quoted, with a less active demand.

**PROVISIONS**—Hams, 15¢@18¢. Bacon, 10¢@12¢. Butter, 24¢@30¢. Cheese, 12¢@17¢. Wheaten bread, per 4 lbs. loaf, 12¢@14¢. Beef, 10¢@14¢. Mutton, 10¢@14. Veal, 12¢@13¢. Pork, 11¢@13¢ per lb. All by the carcass.  
**WOOL**—English, 25¢@47¢; German and Saxon, 56¢@1.08; other foreign kinds, 10¢@57¢ for the range.

**LIVERPOOL MARKET.—April 8.**

**FLOUR**—Western canal, \$5@5.12; Baltimore, Philadelphia, and Ohio, \$5.90@5.90; sour, \$4.30@4.70.  
**GRAIN**—American white wheat, \$1.26@1.60; red do., \$1.14@1.40 per bush. of 60 lbs. Indian corn—yellow, 53¢@90¢; white, \$1@1.04; mixed, 82¢@84¢ per bush. of 60 lbs.

**SEEDS**—With free supplies, prices are easier. American red clover, 11¢@13¢ per lb.  
**WOOL**—English, 12¢@40¢ per lb.; foreign, good demand for all useful kinds at full London rates.

**BRIGHTON CATTLE MARKET.—April 21.**

At market, 800 Beeves, 150 Stores, 1200 Sheep and Lambs, 1500 Swine.

**PRICES**—Market Beef—Extra, \$9.75@10.00; First quality, \$7.75; Second, \$7.25; Third, \$6.00. Milch Cows—\$41 @ \$42; Common, \$20@21. Veal Calves—\$4@7. Yearlings—none. Two Years old—\$22@26. Three Years old—\$26@33. Hides 7½¢@8½¢ per lb. Calf Skins—14¢@15¢ per lb. Tallow—7½¢@8¢. Sheep and Lambs—\$1.75@2.75; extra, \$4.00@7.00. Pelts—\$1.62@2.05. Swine—Pigs, 5½¢@7¢; retail, 6¢@8¢.

Beeves are sold here by the head, at prices per lb. equal to the estimated weight of beef in the quarter, together with the fifth quarter, or the hide and tallow, at the same price, at a shrinkage from live weight agreed on by the parties—from 23 to 34 per cent.

**ADVERTISEMENTS.**

A FEW short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty cents a line, or \$2 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in every State and Territory, and in all the British Provinces. (It has nearly 300 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

**PRINCE ALBERT POTATOES FOR SALE**—At \$3.50 per barrel aboard of cars. Warranted genuine. Address May—11\* D. NORTON, JR., Pittsford, Rens. Co., N. Y.

**SETS OF THE PRINCE ALBERT POTATO**—Sent to any address, by mail, on the receipt of four red stamps. May 11\* M. L. PARKER, Lyndonville, Orleans Co., N. Y.

**JOHN DORR**, a Torney and Counsellor at Law, Scottsville, Monroe county, N. Y., will give prompt attention to any business in Western New York. apt

**SEEDLING EVERGREENS**—For sale, 10,000 two-years-old Scotch Pines—fine, strong plants. Price \$20 per thousand. Address C. W. SEELYE, mylt Rochester Central Nurseries, Rochester, N. Y.

**BLOOD STOCK FOR SALE**—One two-year-old Colt b. "Mariner," out of "Miss Mattie;" two Almerly Bull Calves, one five the other six months old; two pairs "Shanghai Sheep, my 31 WILLIAM REDMOND, 43 Barclay St., New York.

**12 CTS. PER PACKAGE**—postpaid—Boston Marrow Squash Rhode Island Premium Corn, Mountain Bush Beans, Hort cultural Beans, and White Onion Seed. P. SUTTON, May, 1859.—11\* Ransom, Luzerne Co. Pa.

**PEABODY'S EARLY PROLIFIC DENT CORN**—five t seven ears on a stalk—15 ets. per ear, or one dollar per quar at the American Seed Store, Rochester, N. Y. May, 1859.—11 J. O. BLOSS & CO.

**TOP ONIONS! TOP ONIONS! TOP ONIONS!**—100 bush ets of Top Onions, in fine order, for sale at \$2.50 per bush Dealers and Gardeners, send in your orders to mylt J. O. BLOSS & CO., 76 Main St., Rochester, N. Y.

**HOLTON'S "SIX WEEKS" POTATOES**—Are very great yielders; as early as June; indispoted to rot; and a fine white, table potato, eleven months in the year. A few can be had of CHAS. C. HOLTON or E. D. HALLOCK, Rochester, N. Y. May, 1859.—11\*

**RUSSIA OR BASS MATTS**—Selected expressly for budding R and tying. GUNNY BAGS, TWINES, &c., suitable for Nursery purposes, for sale in lots to suit, by D. W. MANWARING, Importer, August, 1858.—11\* 243 Front Street, New York.

**A VIRGINIA FARM FOR SALE**—I offer 1200 acres of ric and highly improved land, with good buildings, an abundance of marl and wood, on Potomac river, Stafford county, Virginia, for only twelve thousand dollars. Address May—31 G. B. WALLACE, Fredericksburg, Va.

**A MERICAN CABBAGE SEED**—Of the PREMIUM FLA-DUTCH variety. We can supply Gardeners and the Trad in limited quantities, with the seed of the above finest of all Fa and Winter Cabbages. Warranted to head solid. \$3 per pound my 21 J. M. THORBURN & CO., 15 John St., New York.

**NANSEMOND SWEET POTATO PLANTS**—for the North—1,000, \$2; 6,000, \$10; 10,000, \$15. Sent safely by Express Directions for culture furnished. Our plants have produced good crops at the North, even as far as 44°, during years past. O. S. MURKAY & SON, May—11\* Twenty Miles Stand, Warren county, Ohio.

**SWEET POTATO PLANTS FOR SALE**—Sweet Potat Plants, Nansemond variety, strong, well-rooted plants, for warded by Express to any point. Per thousand, \$2.50; 500, \$1.50 100, 35¢ ets. Plants sent with perfect safety 1000 miles. Plant ready for sending out from the 15th of May onward. Address May—21 EMORY LUCE, Ashtabula, Ohio.

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BR THE LATE "FRANK FORRESTER." Only 10 cents. Illustrated. Sent free by mail. Address April—21\* DINSMORE & CO., 9 Spruce st., New York.

**GRAPES BY MAIL**—Dianna, Rebecca, Northern Muscadine Concord, Hartford Prolific, King, Tokalon, Child's Superb and forty-six other sorts of hardy native grape vines for sale. Well-rooted plants can be prepared for planting, and sent by mail, carefully packed in oiled silk, and postage paid, on receipt of one dollar each. Delaware and Logan vines at three dollar each. Address C. P. BISSELL & SALTER, Feb. 1, 1859.—41 Rochester, N. Y.

**TREES AND PLANTS**—At the Batavia Nursery, Batavia Genesee county, N. Y. The subscriber offers for sale a general assortment of Fruit and Ornamental Trees, Grapes, Currants, Gooseberries, Raspberries, Strawberries, Shrubs, Roses, Paeonias, Dahlias, Greenhouse and Bedding Plants, &c., at very reasonable prices. Descriptive Catalogues furnished on application. ap 21 A. LOOMIS, Batavia, Genesee county, N. Y.

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**THE** Subscriber would call attention to his fine collection of Bedding Plants, offered for sale this spring, embracing a great variety of Verbenas, Petunias, Heliotropes, Salvia, Scardia Geraniums, &c., &c., of the best and newest sorts. Also, a large variety of the finest Dahlias in cultivation. PIVOKLUS CAPEENSIS—A limited number of this new and beautiful plant will be ready for delivery after the 1st of May. Packing is done in the best and securest manner, and parties ordering plants can rely upon receiving them in good order. Catalogues sent to all applicants enclosing a stamp for prepayment of postage. 11 C. W. SEELYE, Rochester, N. Y.

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A GREAT AGRICULTURAL WORK,  
COVERING THE WHOLE GROUND OF  
AGRICULTURE, HORTICULTURE,  
AND  
LANDSCAPE GARDENING,

with 225 superb illustrations, designed and engraved expressly for the work, by eminent artists.

By R. MORRIS COPELAND, Esq.

Such a work as the above has long been needed, combining in one volume a whole Library of Facts, and the experiences of the best Agriculturists in both hemispheres, brought down to present day, and all arranged in months, so that any cultivator of the soil, be he the proprietor of hundreds of acres or of a single acre, can have before him a Practical Manual, or rather an encyclopaedia, divided into months, showing him at a glance just what he must do in every month in the year, when to plow, when to plant, and what to plant, how to plow, and how to plant, from the smallest flower to the cereals which sustain life. Also the complete description of the manner of constructing and managing Hot Houses, containing a thorough treatise, with full illustrations, on Rose Culture, together with descriptions of the principal Flowers, Plants, and Shrubs, which can be cultivated here, how to cultivate them, and the most elaborate treatise yet published on LANDSCAPE GARDENING, with numerous plans for laying out gardens, or fields, or entire farms, with complete plans and descriptions of draining lands.

Mr. Copeland is well known in his profession; he has made it his enthusiastic study of his life; and probably there is not a man living in this country who is better qualified than he for so great an undertaking. And that he has acquitted himself nobly in this work which he now offers to the public, we have the testimony of several of our most distinguished Agriculturists, who have examined his proof sheets.

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We want a few FIRST RATE AGENTS, and only a few. We want agents who have had experience in selling books of this high order. We will give such a territory sufficiently large to employ them handsomely for one year.

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May, 1859.—2t

"EVERY BODY SHOULD HAVE A COPY."

THE

Rural Annual and Horticultural Directory  
FOR 1859.

THIS work was started in 1856, by the publisher of the *Genee Farmer*. Its great success affords conclusive evidence, not only of its intrinsic merit, but of its adaptability to the wants of the rural population. A new volume, prepared with great care and replete with new and valuable matter, is issued each year. The fourth volume, for 1859, has appeared, and is a book which cannot be too highly recommended—alike beautiful, interesting, and useful. The articles are all written for its pages by men of experience. It is illustrated with seventy-five appropriate and beautiful engravings.

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The work will be found invaluable to the Fruit Grower, and useful to every one interested in Rural affairs.

It is furnished at the low price of Twenty-five Cents,—while it contains as much matter as many dollar books. *Every one who owns a rod of ground should have it.* It is sent pre-paid by mail to any address on the receipt of twenty-five cents in coin or postage stamps. Address JOSEPH HARRIS,

Publisher and Proprietor  
Of the *Genee Farmer and Rural Annual*,  
Rochester, N. Y.

The back numbers, for 1856, 1857, and 1858, can be furnished at twenty-five cents each, postage paid.

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TO FARMERS AND LUMBER DEALERS.—Scribner's

Ready Reckoner and Log Book is one of the most complete and reliable books for measuring all kinds of saw logs, boards, plank and lumber of all kinds, that can be found. Its sale has been constantly increasing ever since its publication, until over 200,000 copies have been sold.

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Agents and pedlers can make money by selling the book.

Address, GEO. W. FISHEL,  
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SORGHUM SUGAR-CANE.—Our Annual Illustrated Pamphlet,

now in press, and to issue about the 15th of April, contains a plain and comprehensive Treatise, explaining how to make Sugar and Syrup from the Sorghum Cane; together with Reports of Interesting Experiments made throughout the country during the last two seasons. It also contains a Catalogue, with cuts and descriptions, of our Improved Patent Sugar-Cane Mills, Pans, Clarifiers, Furnace Fixtures, Skimmers, Ladles, Thermometers, Pots, Saccharometers, Retorts, Molds, and all the appurtenances requisite in the Sugar-making process. On receipt of three postage stamps, this will be mailed prepaid to any address.

It HEDGES, FREE, & CO., No. 6 Main St., Cincinnati, O.

ALBANY TILE WORKS.—CORNER CLINTON AVENUE AND

KNOX STREET, ALBANY, N. Y.—The subscribers, being the most extensive manufacturers of DRAINING TILE in the United States, have on hand, in large or small quantities, for Land Draining, ROUND, SOLE, and HORSE-SHOE TILE, warranted superior to any made in this country, hard-burned, and over one foot in length. Orders solicited. Price List sent on application.  
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**KETCHUM'S COMBINED HARVESTER.**

- KETCHUM'S Improved Combined Machine, "Iron Frame," with Reel and adjustable Roller. Cut 4 feet 10 inches..... \$180
- KETCHUM'S Improved Two Horse Mower, "Iron Frame," with the adjustable Roller to Cutter Bar,.... \$110
- KETCHUM'S Improved One Horse Mower, Iron Frame,.... \$ 75
- SANFORD'S Portable Farm Mill for Grinding Feed for Stock, Plaster or Bones for Manure,..... \$ 80
- SANFORD'S Portable Plantation, or Hand Hominy Mill, \$ 20

Machines and Mills shipped without extra charge. These Machines are simple in construction, have no equal for durability and light draft, are entirely free from all side draft, and have no weight upon the horse's neck.

This Machine, as improved for 1859, was awarded the first premium by the Michigan State Agricultural Society, at its annual Fair in September last, as a Reaper and as a Mower.

The New York State Agricultural Society, at its late Fair, awarded it the first premium as a Combined Grain and Grass Harvester.

Ohio, also, awarded it the best commendation. Two Horse Machine warranted to cut from 10 to 15 acres of grass or grain per day.

One Horse Machine warranted to cut from 5 to 8 acres of grass per day.

All orders will receive prompt attention.

E. L. HOWARD,  
Manufacturer and Proprietor, Buffalo, N. Y.

I have for sale pure Hungarian Grass Seed. Price three dollars per bushel.

Emery's One and Two Horse Railroad Powers for sale at manufacturer's prices, adding transportation from Albany.

May, 1859.—31 R. L. HOWARD.

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NEW SCALE PIANO FORTES!**

Perfect in musical qualities and mechanism, and having our New Patent Improvements of the Insulated Iron Rims, Corrugated Sounding Board, &c.,

Making them the most perfect and desirable PIANOS made in the world.

All sizes, from 6 to 7 1/2 octaves; and all prices, from \$125 to \$500, according to size and finish. Will be sold at very LOW PRICES FOR CASH, and perfect satisfaction guaranteed.

Please call and examine them at our MUSIC HALL, Nos. 408 and 470 Broadway, Albany, N. Y.

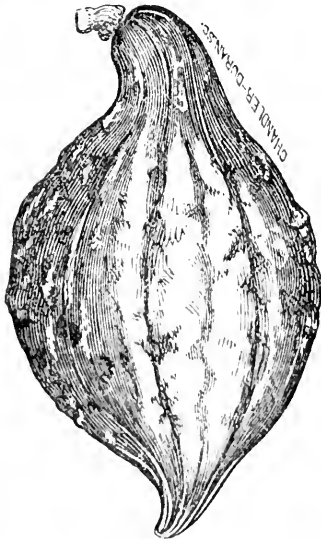
Illustrated Price Lists and Circulars furnished on application. May—11 BOARDMAN, GRAY, & CO., Albany, N. Y.

**The Celebrated  
HUBBARD  
SQUASH.**

Seed for sale by the subscriber, who first introduced this new variety to public notice, and gave it its name. It is pronounced, by Hon. Marshall P. Wilder and Hon. Edward Everett, to be the richest squash they have ever tasted; and by the New England Farmer, Boston Cultivator, the Home-stead, and the entire agricultural press of the North, to be the driest, swe-test, and richest-flavored of all squashes.

For a single package of seed, with directions for cultivating, 25 cents.

Dealers wishing to sell on commission promptly supplied with packages, circulars, &c., on application to the subscriber. May, 1859.—11

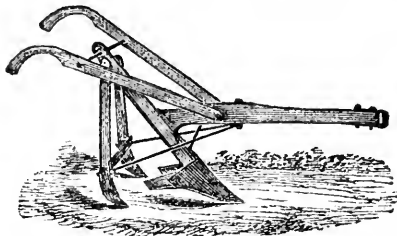


JAMES J. H. GREGORY,  
Marblehead, Massachusetts.

**PERUVIAN GUANO.**—No. 1 Peruvian Guano, Government brand and weight, direct from Peruvian agents, in quantities to suit purchasers, at the lowest market price. March, 1859.—31 A. LONGFELL, 84 Cliff st., New York.

**ROCHESTER AGRICULTURAL WORKS.**

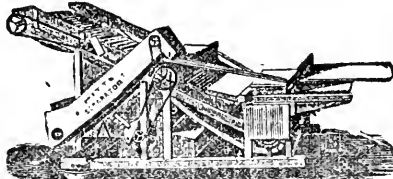
**HYDE & WRIGHT'S PATENT HORSE-HO OR CULTIVATOR PLOW,**



Designed, and better adapted than any other implement, for hoeing Corn, Broom Corn, Potatoes, Cotton, or any other crop requiring the use of the Horse or Hand-Hoe. It has proved to be the most valuable implement yet invented for the purpose intended. It has been in use in Western New York for the past years. Its great utility has been demonstrated in the fact that one day to the acre, with a man and horse, is all the expense of cultivating and hoeing a field of corn for the season. If used as reeeted, hand-hoeing, in nine cases out of ten, may be entirely dispensed with. We have numerous certificates of the most satisfactory character, which we would be happy to show the public.

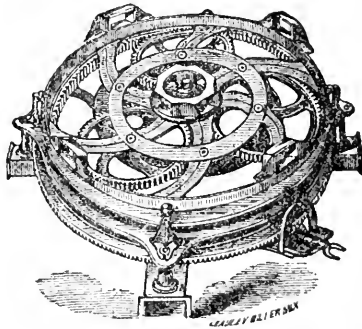
Price, \$8; if ground and polished, \$8.50. No farmer should without one. They are having an unlimited sale. Sold at wholesale and retail.

**IMPROVED THRESHING MACHINES AND HORSE POWERS.**



The above cut is a representation of the justly celebrated PITT'S MACHINE FOR THRESHING AND CLEANING GRAIN at one operation. It is the best Machine in existence.

The following cut represents an improved, all iron, EIGHT OR TEN HORSE POWER.



As a superior and every way reliable Horse Power, the above stands unrivalled.

We call attention to the fact that we are now manufacturing above Machines, at Rochester, N. Y., in a more substantial and durable manner than any hitherto built in this city, having all latest improvements.

We also make Pitts' celebrated DOUBLE PINION EIGHT OR TEN HORSE POWERS.

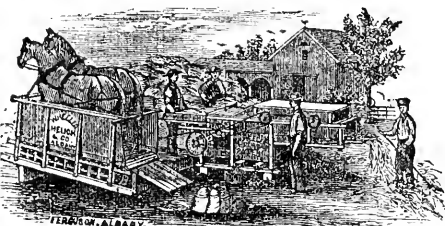
**ONE HORSE MOWER.**

We offer Stoddard's Mower to the Farmer as preferable to every other Mower. It will cut salt, tame, or prairie grass; will do work well; does not clog; will cut as much per hour, with horse, as any other Mower with two horses. Its draft in cut is only from 80 to 110 lbs. Cuts 4 ft. 2 inches. Price, \$100.

**ROCHESTER CUTTING BOX.**

All who are in want of a Feed Cutter, adapted equally well to the cutting of all kinds of fodder, will find our Cutting Box in respects to answer their wants. A. GORDON.  
May, 1859.—11 68 South St. Paul street, Rochester, N. Y.

**AGRICULTURAL IMPLEMENTS.**



**WHEELER, MELICK, & CO.,**

PROPRIETORS

**New York State Agricultural Works,**

Manufacturers of Endless Chain Railway Horse Powers, and Farmers' and Planters' Machinery for Horse Power use, and Owners of the Patents on, and principal Makers of, the following valuable Machines.

**WHEELER'S PATENT DOUBLE HORSE POWER**

AND

**Improved Combined Thresher and Winnower.**

(Shown in the Cut.)

Our first Combined Thresher and Winnower was invented and patented in 1851. Continued experiments resulted, in 1857, in the present

**WHEELER'S IMPROVED PATENT COMBINED THRESHER AND WINNOWER.**

This Machine is a model of simplicity and compactness, and is made in the most substantial manner, so that its durability equals efficiency and perfection of work. Its capacity, under ordinary circumstances, has been from 125 to 175 bushels of wheat, and a 200 to 300 bushels of oats, per day. It works all other kinds of grain equally well, and also threshes and cleans rice and timothy. Price \$245.

**WHEELER'S PATENT SINGLE HORSE POWER**

AND

**Shot Thresher with Vibrating Separator.**

This is a One-Horse Machine, adapted to the wants of medium and small grain-growers. It separates grain and chaff from the straw, and threshes from 75 to 100 bushels of wheat, or twice as many oats, per day, without changing horses—by a change, nearly double the quantity may be threshed. Price \$123.

**WHEELER'S PATENT DOUBLE HORSE POWER**

AND

**Shot Thresher with Vibrating Separator.**

This Machine is like the preceding, but larger, and for two horses. It does double the work of the single machine, and is adapted to the wants of large and medium grain-growers, and persons who make a business of threshing. Price \$160.

Also, Circular and Cross-Cut Sawing Machines, Clover Hullers, Feed Cutters, Mowers and Reapers, Horse Rakes, and other Farming Machines.

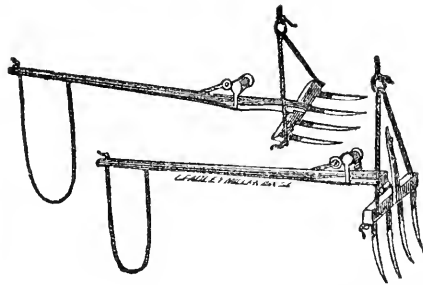
Our Horse Powers are adapted in all respects to driving every kind of Agricultural and other Machines that admit of being driven by Horse Power, and our Threshers may be driven by any of the ordinary kinds of Horse Powers in use. Either is sold separately. To persons wishing more information, and applying by mail, we will forward a Circular containing such details as purchasers mostly want—and can refer to gentlemen having our Machines, in every State and Territory.

Our firm has been engaged in manufacturing this class of Agricultural Machinery 24 years, and have had longer larger, and more extended and successful experience than any other house. All our Machines are warranted to give entire satisfaction, or they will be returned at the expiration of a reasonable time for trial.

Orders from any part of the United States and Territories, Canada, accompanied with satisfactory references, will be filled with promptness and fidelity; and Machines, securely packed, will be forwarded according to instructions, or by cheapest and shortest routes. **WHEELER, MELICK, & CO.,** Albany, N. Y. May, 1859.—14

**AGRICULTURAL IMPLEMENTS**—A large assortment, at manufacturers' prices, consisting of Endless Chain Horse-powers and Threshers, Excelsior Fan Mill, Hay and Straw Cutters, Churns, Corn Shellers, Seed Sowers, Harrows, Cultivators, and Scrapers, Iron and Wood Beam Plows, &c., &c. Send for a catalogue. **A. LONGETT,** March, 1859.—31 84 Cliff street, New York.

**NOTICE**—Virginia Farms for sale. Apply to **COENELIUS GUAED,** Dowdalls Office, Va. ap31\*



**GLADDING'S HAY ELEVATOR.**

Patented May 11, 1858.

**THIS** Horse Pitch Fork possesses many important advantages over all other Forks, among which are the following: The tines being allowed to drop to discharge its load, the tilting of the handle, as in other Forks, is avoided; hence, it can be unloaded with the utmost facility and ease into shed windows or beneath pultrine beams, and other places where other Horse Forks can not be used. It can in all cases be managed with greater ease than any other Horse Fork. It is equally adapted to stacking. With this Fork, a ton of hay can be unloaded in from five to seven minutes. Price \$12, everything included.

**TESTIMONIALS.**

I hereby certify that I have witnessed the operation of C. E. Gladding's Patent Horse Pitch Fork, and am free to say that I esteem it a great acquisition to the agricultural department. Its simplicity, durability, perfect operation, and comparatively trifling expense, recommends it to the farmers of our country. **HORNBY, N. Y., Aug. 31, 1853. A. B. DICKINSON.**

Having been acquainted with Horse Power Pitchforks for several years, and having witnessed the operation of Mr. Gladding's Patent Improvement of the same, I cheerfully recommend it to the farming community as decidedly the best that I am acquainted with. **A. E. KAPP. NORTHUMBERLAND, PA., Oct. 1, 1853.**

We hereby testify that we have for some years been using the common Horse Power Pitchfork, and have seen C. E. Gladding's Patent Improvement, and do most cheerfully recommend it in every respect a decided advantage. **SAMUEL LEVERICH, February 15, 1853. B. S. CARPENTER.**

The above testimonials are selected from many others, the signers being generally known as distinguished agriculturists. All who have seen it operate, agree in the above opinion of its merits.

This Fork has taken the First Premium at every Fair at which it has been exhibited, including the State Fairs of Pennsylvania and New York for 1858.

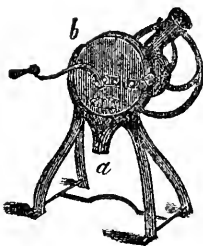
**State and County Rights for Sale.**

Address [\*] **C. E. GLADDING, Troy, Bradford Co., Pa.**

**BURRALL'S CORN SHELLER**

HAS long been extensively known and approved as the best hand sheller in use. It is the *only one* that shells clean and separates the corn from the cob at the same operation. It is simple, strong, and durable, being all of iron. Price \$12. Liberal discount to dealers. All orders or inquiries will receive prompt attention from

**BURRALL, SNYDER, & CO.,** (successors to Thomas D. Burrall,) Manufacturers of Shellers, Mowers, Reapers, Cloo-Crushers, and various other Farm Implements, Geneva, Ontario county, N. Y. ap21



**SHORT HORN HERD AT AUCTION.**—Having sold my farm at Chestnut Ridge, Dutchess county, N. Y., I will offer for sale at auction, my entire Herd of **SHORT HORNED CATTLE**, consisting of about thirty-five head of superior animals. Among them will be the unrivalled Bull, "Highflyer," 578; also, stock sired by him, as well as the "Earl of Warwick," 465. The sale will take place at Dover Plains, on the New York and Harlem Railroad, on the 10th day of May next, at 12 o'clock.

Catalogues of Pedigree may be had after the 10th day of March, at the offices of the American Agriculturist, New York, Country Gentleman, Albany, Ohio Farmer, Cleveland, Boston Cultivator, and of the subscriber. **SAMUEL T. TABER,** Mineola, Queens Co., N. Y. ap 21

P. S. No animals will be disposed of before the sale at auction.

**SUPERPHOSPHATE OF LIME—BONE DUST**—For sale by **mr 31 A. LONGETT, 84 Cliff street, New York.**

THE  
**GENESEE FARMER**  
 FOR 1859.

Premiums for the Half Volume.

THERE are many farmers in every town in the United States and Canada, who are not now taking any agricultural paper. In order to reach this large class, we have concluded to take subscriptions for the coming half volume of the *Genesee Farmer*, commencing with the July and ending with the December number.

**Terms.**—We will send the *Genesee Farmer* for the coming half year—July to December inclusive—single subscribers, 25 cents; five copies for \$1, and a copy of our beautiful 25-cent book the *Rural Annual and Horticultural Directory*, prepaid by mail, to the person getting up the club; eight copies for \$1.50, and a *Rural Annual*, prepaid by mail, to the person getting up the club; sixteen copies for \$3, and a *Rural Annual* and an extra copy of the *Farmer* for a year, or two for the half volume, to the person getting up the club.

**CASH PREMIUMS**

For the Greatest Number of Subscribers.

We also offer the following Cash Premiums for the greatest number of subscribers for the coming half volume, sent in by the 15th day of October:

1. TWENTY DOLLARS, in Cash, to the person who shall send us the largest number of subscribers, (at the lowest club price of 19¼ cents each,) before the 15th day of October, 1859. (The order with the money must be received, not mailed, on or before the 15th of October.)
2. FIFTEEN DOLLARS to the person who shall send us the second highest list, as above.
3. TEN DOLLARS to the person who shall send us the third highest list, as above.
4. NINE DOLLARS to the person who shall send us the fourth highest list, as above.
5. EIGHT DOLLARS to the person who shall send us the fifth highest list, as above.
6. SEVEN DOLLARS to the person who shall send us the sixth highest list, as above.
7. SIX DOLLARS to the person who shall send us the seventh highest list, as above.
8. FIVE DOLLARS to the person who shall send us the eighth highest list, as above.
9. FOUR DOLLARS to the person who shall send us the ninth highest list, as above.
10. THREE DOLLARS to the person who shall send us the tenth highest list, as above.
11. TWO DOLLARS to the person who shall send us the eleventh highest list, as above.
12. ONE DOLLAR to the person who shall send us the twelfth highest list, as above.

The club need not be all at one post office. We will write the names of the subscribers on every paper, and send them to as many different post offices as is desired.

We stereotype each number of the *Farmer*, and the back numbers of the present half volume can be supplied in the club at the same rates as the above (37½ cents for the year).

We cordially invite Postmasters and all friends of agricultural improvement to act as agents for the *Genesee Farmer*. We will cheerfully send them specimen copies, show-bills, &c., if desired. Money may be sent at our risk.

Address **JOSEPH HARRIS,**  
 PUBLISHER AND PROPRIETOR,  
 May 1, 1859. ROCHESTER, N. Y.

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**THE GENESEE FARMER,**

A MONTHLY JOURNAL OF

**AGRICULTURE AND HORTICULTURE**

IS PUBLISHED AT ROCHESTER, N. Y.,

BY **JOSEPH HARRIS.**

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# THE Gemsee Farmer

PRACTICAL SCIENTIFIC FARMERS OWN PAPER

VOL. XX, SECOND SERIES.

ROCHESTER, N. Y., JUNE, 1859.

No. 6.

## "PROGRESSIVE ULTIMATES."

THE editor of the *Working Farmer* has for some time been promulgating the doctrine that the excrements of plants are of little or no value as manure. They must first be taken up by plants, and reorganized, before they become of any manurial value; and the oftener they have been taken up by plants—the oftener they have formed parts of the living organism of plants or animals—the more valuable they become. An atom of potash, fresh from the hands of its Creator, in the virgin soil of Eden, was entirely useless as plant-food.

This is a most remarkable doctrine; and one, if true, of great practical importance. The evidence in which it rests we have been unable to discover. It is quite true that the potash in feldspar is not as valuable for manure as the potash of wood ashes; but is not this owing to the fact that plants can take up their food only in solution, and that the potash in feldspar is comparatively insoluble, while that in wood ashes is readily soluble? Is not an atom of ammonia formed during a thunder storm, from the nitrogen of the atmosphere, of just as much value as manure as an atom formed by the decay of animal matter?

But we need not speculate. The originator of this hypothesis states that its truth may be established by the following test: Take the *mineral phosphate of Estramadura*, and *bone phosphate*. Dissolve portions of each in dilute muriatic acid, so that each portion shall be in solution. Apply them respectively to the soil, and it will be found that the dissolved phosphates from bones will fertilize plants and be readily assimilable by them, while the dissolved *mineral phosphate will produce no effect at all*.

Now it so happens that this very test has been made—and that, too, with the very "phosphate of Estramadura" alluded to. DR. DAUBENY and CAPT. WELLINGTON brought over to England, from Estramadura in Spain, some of the very *apatite* or *mineral phosphate* which, according to the *Work-*

*ing Farmer*, will "produce no effect at all" as a manure for plants. It was sent to Mr. LAWES' experimental farm at Rothamsted, and there used on turnips side by side with phosphates obtained from bones, with the following results:

1. A plot without any manure produced 2 tons 4 cwt. of turnip bulbs per acre.
2. With 3 cwt. of ground apatite or mineral phosphate, 3 tons 1 cwt.
3. With 3 cwt. of superphosphate of lime (made from calcined bones) and 15 lbs. phosphate of ammonia, 6 tons 6½ cwt.
4. With 3 cwt. of superphosphate of lime made from ground apatite, 6 tons 15¾ cwt.
5. With 374 lbs. of superphosphate made from apatite or mineral phosphate, 7 tons 3¼ cwt.
6. With 560 lbs. of superphosphate of lime made from calcined bones, 7 tons 14¾ cwt.

It will be seen that the superphosphate made from the apatite or mineral phosphate, so far from "producing no effect at all," was quite as beneficial as that made from bones.

These experiments, which are perfectly reliable, show the utter absurdity of this doctrine of "progressive ultimates." Plants feed on unorganized matter. Substances which are only partially organized—such as urea, in fresh liquid excrements—are injurious. Fresh blood in solution will kill plants. But if these substances are allowed to ferment and become crude inorganic matter, they are very beneficial. That the individual atoms have been in any way changed by being organized, we have not a particle of evidence. Lichens and mosses may grow on a soil which would not support a wheat plant. By their decay in the soil they may furnish food for some plant of a higher organization; and these in their turn may furnish food for clover; and this, by being plowed in, may furnish food for wheat: and thus, in the course of years, a soil which would not produce wheat may be rendered capable of doing so. But to account for this, it is not necessary to assume that the elements which were first taken up by the lichens are in any respect different from the same elements which are taken up by the wheat. The soil did not contain a sufficient quantity of these elements



in an assimilable condition for the wheat plant, but sufficient for lichens and mosses. These collected the sparse elements of the soil, and left them in a more concentrated form. And so of the other plants which follow; the oxygen of the atmosphere, carbonic acid, ammonia, &c., disintegrating and decomposing the soil, and rendering the insoluble food of plants which it contains more and more soluble, till in time there is a sufficient quantity for the higher order of plants.

#### SUMMER FALLOWS FOR WHEAT.

FALLOWING is one of the most ancient methods of restoring fertility to impoverished soils. The Hebrew law commanded that the land should rest every seventh year; and though of a figurative nature, it was probably connected with the practical requirement of the early system of agriculture. HESIOD, the Greek poet-farmer who flourished in the tenth century B. C., and who cultivated a soil which he describes as "bad in winter, hard in summer, and never good," (probably a stiff clay,) recommends fallowing, the land being plowed three times—once in the autumn, again in the spring, and then immediately before sowing. Among the Romans, fallowing was a universal practice—in most cases a crop and a year's fallow succeeding each other. The land was first plowed after the crop was removed, generally in August; it was again cross-plowed in the spring, and at least a third time before sowing, whether spring grain or winter wheat was the crop. There was, however, no end to the number of plowings and sarclings, the object being, as THEOPHRASTUS observes, "to let the earth feel the cold of winter and the sun of summer, to invert the soil, and render it free, light, and clear of weeds, so that it can more easily afford nourishment."

The Romans introduced the system of fallowing into England, where it has been pursued since the invasion. It would appear, however, that the practice did not extend to Scotland till the earlier part of the eighteenth century. JOHN WALKER, of Beanston, East Lothian, is supposed to have been the first person who ever systematically attempted to fallow land in Scotland. He had to endure, for a time, the ridicule and contempt of his neighbors, who jestingly concluded that he was either insane for allowing a portion of his land to lie waste for a whole year, or so poverty-stricken as to be unable to find seed to sow it with. The practice, however, was so successful, that twenty years after, summer-fallowing had become nearly

general throughout East Lothian. "Many," says JOHN HAXTON, of Fife, "are old enough to remember the wonderful improvement effected in Scotland through the introduction of the bare fallow system. Previously, the land was cropped repeatedly with grain, until it ceased to produce enough to pay for seed, labor and rent. It was then allowed to remain in grass until the operation of natural causes had, in some degree, repaired the former damage it had sustained, when it was again broken up, and the same scourging process renewed. Upon such a system, the introduction of fallowing operated like a charm."

In the mean time, turnip-culture was introduced with remarkable success on the light soils of Norfolk; and a controversy on the subject of substituting the growing of turnips for bare fallowing, agitated the writing and reading portion of the agricultural public of Great Britain during the latter end of the last century, and ultimately a tacit compromise resulted, which left the turnip grower in complete possession of the light soils, and the summer fallow advocates in possession only of the heavier and undrained clays; while the drier and less stubborn clay loams formed a sort of debatable ground, upon which occasional pen-and-inclosures took place between the two parties until practical experiment proved the point in favor of turnip growers.

There can be no doubt that in the moist, climate of the British Isles, turnip-culture is more profitable than bare fallows on all well-underdrained soils, except the heaviest and most tenacious clay.

In this country, where the climate is not so well adapted to the cultivation of turnips, and where the meat is not so high, the case may be, and we believe is, very different.

The lamented Judge BUEL, and other eminent agricultural writers, reflected the opinions of the brethren across the Atlantic. They extolled turnip-culture, and condemned summer fallows; and it is not difficult to trace the influence of their writings in forming the now very generally received opinion that summer fallows are, at best, a necessary evil. There is some truth in this opinion, but we are inclined to believe that the benefits of summer-fallowing are not sufficiently understood and appreciated.

On light soils, there is little necessity for summer fallows. We should endeavor to keep the land clean by the introduction of hoed crops, without the use of bare fallows, and try to enrich it by the growth of such plants as enrich rather than impoverish the soil, and then feed them to cattle.

keep, and endeavor to make as much rich manure possible.

But on heavier soils—such as form, under good culture, our best and most permanent wheat lands—we can not dispense with the use of summer fallows. We will hazard an opinion, which will, perhaps, astonish some of our readers, but for which we can offer some good reasons: that on a well-underdrained, properly-cultivated clayey loam, there is very little actual increase of fertilizing matter added to the soil by growing and plowing any crop—even a heavy crop of our highly-fertilized clover. All the mineral matter it contains is in the soil before, and the matter which the crop has obtained from rain and dew would have been retained by the soil, if in proper condition. The only increase, then, would be in the gases which the plants attracted from the atmosphere. The bulk of this is carbonic acid—of which, for wheat, most soils have an abundance. How much ammonia is attracted from the atmosphere by the best of renovating plants, such as clover, it is difficult to estimate, but from all that we know on the subject, we think it probable that it is not more than a well-stirred, loamy soil would attract. That any kinds of clayey soils have the power of attracting ammonia from the atmosphere there can be no doubt, and that one of the advantages of summer fallows is attributable to this fact is equally certain.

Our wheat growers, on heavy soils, must pay more attention to summer fallows. We are aware that fallows *add nothing* to the soil, except ammonia, from the atmosphere. They simply render available the stores of plant-food locked up in the soil. But why should they not be rendered available, and useful? Is not this better than letting them lie dormant? They are the farmer's capital, and the more he can keep in circulation the better. We have great hopes that some cheaper and more practical method will be devised of breaking up and pulverizing clay soils, than by the common plow, cultivator and harrow. We must make the steam engine, that "giant with one idea," do, at a single operation, what we can now accomplish only by repeated plowings, harrowings, &c.

With our cold winters, and hot, dry summers, we can attain the object of summer-fallowing more easily than in Great Britain. What will our readers say to the following remarks from that recent and most excellent British authority, MORRIS'S *Cyclopedia of Agriculture*? "At present, four plowings, including the stubble and seed furrows, complete the process; but were the true objects of a naked

fallow kept in view, the clay land farmer should never rest satisfied that he has worked his land properly, unless six, or at least five, plowings have been given during the process."

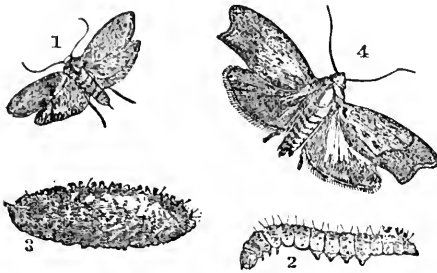
The same authority says that the heavier clay soils in Essex "frequently receive *eight*, and never less than six, clean plowings, with three horses abreast each time. The land is also scarified with four horses between the plowings."

In the Carse of Gowrie, it is considered that a summer fallow, to be properly worked, "should receive six furrows, ten double tines of the harrows, four rollings, and two grubblings."

As we have said before, land can be cleaned of weeds and rendered mellow here with less labor than in England; but we would submit the question for consideration, whether we have not somewhat abused these advantages? Whether we do not content ourselves with summer fallows for wheat, which are unworthy the name? Of late years, the majority of summer fallows, in this section, are plowed but once. The sod is broken in June, and the surface afterwards cleaned and pulverized by the use of the cultivator and harrows. The surface is often very loose and mellow, but the great mass of the soil is not exposed to the meliorating influences of the air and sun. Would it not be better to plow the land oftener, and leave it rougher? The heat of the sun has great influence in bringing about those chemical changes in the soil which it is one of the objects of summer fallows to induce. The direct rays of the sun give out no heat—the reflected rays alone give out heat. When the sun shines on a cloddy field, the clods reflect the heat radiated from each other, and in this way a high degree of temperature is obtained. A writer in the *London Farmer's Magazine*, for 1815, states that a cloddy, clay soil was found to be heated to 120°; and in our hotter climate, a much higher heat might be obtained, which would contribute materially to the destruction of insects and their eggs, as well as promote disintegration of the earthy and alkaline silicates, and the decomposition of vegetable matter.

This subject is one of vast importance to American wheat growers. We have merely thrown out a few hints for consideration, and shall be glad if some of our experienced correspondents will give us their views.

IS PLASTER BENEFICIAL ON WET LAND.—BOUSSINGAULT addressed this question to the farmers of France. There were ten answers, *all in the negative*.



### THE BEE MOTH.

THERE are two species of this insect—*Galleria aboveria*, the Honey Moth, (fig. 1,) the maggots of which feed upon the honey, and which is more generally known in Europe than here, and *Galleria ceransea*, the Honeycomb Moth, (fig. 4,) which is well known as the greatest enemy the American bee-keeper has to contend with. In its adult state it is a winged moth, measuring from the head to the tip of its closed wings from five-eighths to three-fourths of an inch, and its wings expand from one and one-tenth to one and four-tenths inches. The male is of a dusty gray color; the female is much larger, and darker colored than the male. There are two broods in the year. Some moths of the first brood make their appearance towards the end of April, or early in May. Those of the second brood are most abundant in August. By day they remain quiet on the sides, or in the crevices, of the bee-house; but, if disturbed at this time, they open their wings and fly quickly away, so that it is difficult to seize them. In the evening, they take wing when the bees are at rest, and hover round the hive, till, finding the entrance, they go in and lay their eggs. Those that are prevented from entering the house by the bees, or any other cause, lay their eggs on the outside, or on the stand, and the little, worm-like caterpillars (fig. 2) hatched therefrom easily find their way into the hive through the cracks, or gnaw a passage for themselves under the edge of it. These caterpillars, at first, are not thicker than a thread, and have sixteen legs; their bodies are soft and tender, and of a yellowish-white color. Weak as they are, and unprovided with any natural means of defence, they are taught, by instinct, how to shield themselves against the vengeance of the bees, and pass safely and unseen in every direction through the waxen cells, which they break down and destroy. Beeswax is their only food, and they prefer old to new comb. As soon as they are hatched they begin to spin, and each one makes for itself a tough, silken tube through the waxen cells, wherein it can easily turn round,

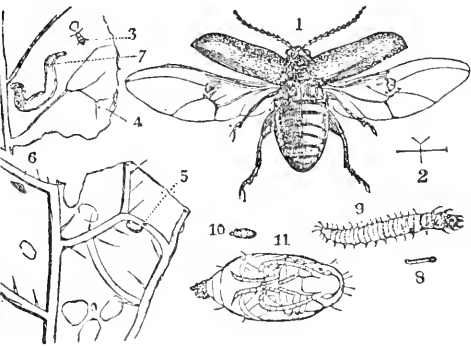
and move backwards and forwards at pleasure. During the day they remain concealed in their silken tubes, but at night, when the bees can not see them, they come partly out, and devour the wax within their reach. As they increase in size, they lengthen and enlarge their dwellings, and cover them over with a coating of grains of wax mixed with their own castings. Protected by this coating from the stings of the bees, they work their way through the combs, gnaw them to pieces, and fill the hive with their filthy webs, till at last the discouraged bees are compelled to abandon their perishing broods and wasted stores, and leave their desolated hive to the presence of the spoilers. These caterpillars grow to an inch or more in length, and come to their full size in about three weeks. They then spin oval cocoons, (fig. 3,) change into pupa in them, and these are often found clustered together in great numbers in the top of the hive.

Strong and healthy swarms, provided with constant supply of food near the house, are less liable to suffer from the moth than small and weak ones, as the bees are then better able to guard the entrance of the hive against the moth. There are several ways mentioned by writers on bees of getting rid of this pest of the hive. But the most convenient, and least troublesome, perhaps, is to place shallow vessels containing water, mixed with vinegar and sweetened with honey or molasses near the entrance of the hive. Early in the evening, as soon as the bees are gone to rest, is the time. A light may be placed near by, to attract them, and, as they are fond of sweets, numbers will be found drowned in the vessels.

AGRICULTURE IN OHIO.—The editor of the *Oh Cultivator* disproves the truth of the oft-repeated assertion that the "wheat crop of Ohio has fallen off one-half." He shows from statistics that, for the last four years, "the wheat crop has been tending upwards, and this, too, in the face of its insect enemies, before unknown, and also in the face of the fact that while the early settlers occupied on the best lands, the later fields have been made from the second and third-rate lands, which reduces the average per acre, without involving the farmer the censure of mismanagement."

The same is true of the corn crop, and of livestock. The agriculture of the State has improved rather than deteriorated.

COTTON SEED gives 33 per cent. of oil suitable for machinery. The oil-cake remaining is nearly equal to linseed-cake for fattening stock, or for manure.



THE TURNIP FLY.

ONE of the greatest drawbacks to the cultivation of the turnip is the fly, or, more properly, the beetle, (*Altica nemorum*), which devours the young leaves of the plants. It is too familiarly known to need a minute description, but we give a cut illustrating its various stages of development, which may be of interest.

Fig. 1 is the fly greatly magnified—the cross lines at fig. 2 indicating the natural dimensions, as well as fig. 3, where one is represented feeding on the leaf. It is shiny black, minutely punctured, with two yellow stripes down the wing cases, the hinder legs formed for leaping. The female deposits her eggs on the under side of the rough leaf, (fig. 4—5 magnified.) The laying continues as long as the rough leaf appears, and the eggs hatch out in a week or ten days, when the young grub pierces the skin under the leaf, and begins eating the pulp, and the spot becomes visible by a brownish appearance, (fig. 6.) It continues moving in a tortuous direction till it reaches the mid-rib, (fig. 7,) by which time it is full grown, (fig. 8—9 magnified.) It then eats through and falls to the ground, to become a pupa, just under the surface, (fig. 10—11 magnified.)

From their migrating against the wind, it seems they are directed in their course by scent. It is, therefore, not often that the turnip beetles are bred in the fields on which they commit their ravages; and as they swarm in every meadow and fence from April to October, and hibernate or hide themselves in the winter, a piece of turnips comparatively free from them, may, by attracting warmth from the surrounding country, be overrun with them in a few hours.

It is difficult to suggest any remedy against the attacks of the turnip fly. The great point is to give the plants a rapid growth, by having the soil rich and very fine. Superphosphate of lime, sown with the seed in the drills, has a magical effect on

the young turnip plants, pushing them forward so rapidly that the fly has no time to do them much injury. Another remedy is, to sow plenty of seed—from one to three pounds per acre—and thin out after the turnips get into the rough leaf. We have known as much as five pounds per acre sown in England, in order, if possible, to have enough plants to satisfy these voracious destroyers. Another remedy, which has been resorted to with considerable success, is founded on the fact that the fly prefers the leaves of radishes to those of turnips. If a little radish seed is sown with the turnip seed, the fly will eat the radishes and let the turnips alone. Dusting the plants with ashes, lime or soot, while the dew is on, is sometimes useful in checking the ravages of the fly.

#### PRAIRIE FARMING IN AMERICA.

SCOTCH is the title of a new work just published in London by JAMES CAIRD, M. P.—the well-known Agricultural Commissioner of the *London Times*. Mr. C. is a Scotch farmer, a close observer, and a pleasing writer. He visited this country last fall, for the purpose, principally, of examining the lands of the Illinois Central Railroad, in which, we believe, he is somewhat interested—and it may be well to take his opinion of the fertility and value of these lands with some caution. A few extracts from the work will be read with interest.

At Niagara Falls he met a Scotchman who had been thirty years in this country. "Oh, man," said he, "they're meeserable farmers. It would break your heart to see how they just scart the grun'. It's no very guid, ony way, but they dinna gie't a chance."

He was much impressed with the growth of Chicago. "Nothing," he says, "can illustrate more forcibly the vast natural abundance and resources of this splendid country, than the history of the grain trade of Chicago. An Indian village in 1820, this place has become a great city, with upwards of 120,000 people, with wharves and granaries for miles along the river canal which opens into Lake Michigan; and with streets, public buildings, churches and private dwellings that may vie with those of London itself. And Chicago is actually the center of more miles of railway completed and in operation than London. In 1837, its export amounted to about 100 bushels of grain; and in 1857, upwards of 18,000,000 bushels. Chicago and all its wealth, are, in fact, a property created by the profits arising in the mere transference from hand to hand of the surplus produce of but a small part of this wonderful country. This surplus, great

though it is, is capable of being increased tenfold, as only one-tenth of the fertile lands of this State are believed to be yet brought under cultivation."

Of the prairie farms, he says: "Some corn [grain] fields are of uncommon magnitude. One vast sweep of 2,200 acres was all in new-sown wheat, a sparkling sheet of verdure in the morning sun. The towns, most of which are not four years old, are growing rapidly. There is a plan of going 'shares,' in which a prudent farm-laborer meets with great success. He has a farm given to him to cultivate, fenced and broken up and seeded; he performs the rest of the labor and carries on the farm, and pays his rent by delivering at the nearest station the half of the crop."

The pioneer of a settlement on the prairie, owning 2,500 acres, after telling him his history, and advertising to the failure of the crops in 1858 having disheartened the farmers, concludes with: "But personally he had no apprehension, as he had the utmost confidence in the natural fertility of the soil, which he did not believe could be exhausted."

He called on a dairy farmer from the Eastern States, and says: "He has a dairy stock of thirty-eight cows, and makes his milk into cheese. He can sell his cheese on the spot at 42s. a cwt., [about eight cents a pound,] which is not far short of the average price realized by dairy farmers in Scotland, where the rent is higher than the price of land in Illinois. He finds the natural prairie grass very productive of milk till September. His cows yield him two pounds of cheese each, daily, during the period of good grass, and they can be foddered very cheaply during the winter on prairie hay."

He says: "The same sum which would be needed to start one son as a farmer on another man's high-rented land in England, would start three sons as the owners of farms, fenced, stocked and under crops, on the fine prairies of Illinois."

#### CEMENT FOR ROOFS, INCOMBUSTIBLE WASH, &c.—

In answer to the inquiry of O. P., I would say: Slack stone lime in a large tub, or barrel, with boiling water, covering the tub to keep in the steam. When thus slacked, pass it through a fine sieve. Now, to six quarts of this lime add one quart of rock salt, and one gallon of water; boil the mixture, and skim it clean. To every five gallons of this mixture, add one pound of alum, half a pound of copperas, and, by slow degrees, three-fourths of a pound of potash, and four quarts of fine sand. This mixture will now admit of any coloring matter you choose, and may be applied with a brush. It looks better than paint, is as durable as slate, and will stop small leaks in roofs, rendering them incombustible. When laid upon brick work, it renders the brick impervious to rain or wet.—L. DAVIS.

#### LUPINS FOR ENRICHING LAND.

In the April number of the *Genesee Farmer*, we gave a cut of the lupin, and recommended its trial on the poor light soils of the Atlantic slope as a green manure. The London *Mark Lane Express*, for April 25th, contains an article on this subject, from an "English farmer in Belgium," which fully confirms all that we have said of the value of this plant. We make a few extracts:

"In Germany, there are whole districts of the very poorest sands. For some few years past on these soils the agriculturists, or rather the proprietors on these miserable lands, have been much impressed with the immense advantages to be derived from the "*Yellow Lupin*," as a green crop to be plowed in. It is so effective that, where it has been followed up, as in Pomerania, Saxony and Brandenbourg, those estates, which before were worthless, now produce splendid crops of rye and lupins, without any manure being employed but that which arises from these crops.

"It is not a high-growing plant, but very leafy, and branches much; consequently it may be drilled thinly at eighteen inches, and hoed or not, as you please. It is a sort of bean with a spotted skin, sown in the spring at the rate of two bushels per acre, and plowed in when in full flower. The ground may be then sown again with it, and the crop also buried. I should say after the first frost, but in Germany they sow it after harvest, and turn it down in the spring for rye or oats, and have thus obtained a white crop and this 'manure' crop for three or four years together on the same land!

"If it would stand our winters, it is just what we want to occupy our stubbles from harvest to February, and it is well worth trying. There are many gentlemen in the north of Germany who grow as many as one hundred and twenty to two hundred acres of this plant annually, as the farms run large. They grow it for corn, and also occasionally cut it for hay. The grain ripens in August; but it is difficult to harvest, because the plant itself is succulent, and the pods do not all ripen at the same time. It is mown in swaths, and, after laying a few days, is set up in single sheaves, as we do some times our beans, with a bean-stalk twisted round near the top of the sheaf, the lower part standing out like an umbrella. Another difficulty is, the pods are so liable to open, and shed the grain. But there are ways to meet all this. One man made small stacks of it, with alternate layers of oat-straw; it heated a little, gave the oat-straw a flavor, and dried itself without injuring the grain.

"It might be made into long stacks of only two sheaves in width, and the height of long poles set in the ground on each side, at intervals of a dozen yards, to keep them up. I have seen this done with the cammeline oil plant; but I can not see why the French plan of round shocks of a dozen sheaf with three-hood sheaves should not answer, and let them remain out some weeks, till thereby dried and then carted home in wagons, with old tilts at the bottom to catch the shed lupins.

"Another man had it half thrashed in the field, the lads going round and giving each sheaf half a dozen knocks with a stick, and shocking them. This

good plan, as the pods dry so long before the juicy stalks.

"The feeding property of the grain is about the same as common beans.

"It likes *deep cultivation*. The land is never 'tired' of it, and where grown annually as manure, some six or seven years, it has turned the soil dark color, from the quantity of decayed matter deposited.

"If mown for hay, in full flower, it is considered quite as nutritive as clover; but I should doubt that. It should always be mixed in the (long) stack with layers of straw. April would be the time for sowing it, and thicker than if intended to produce grain. It has grown two tons of hay per acre. It is good for all animals, but cows must not be allowed too much of it, or it will give a taste to the milk. On soils that suit it, (and any will do except alk.) it will grow a yard high, deeply plowed and manured.

"If sown to be folded off by sheep, tares must be mixed with it, and they will then readily eat it; but not so well if sown alone.

"The above is sufficient to give an idea of its cultivation and use. But I should think its great value to us would be as a green crop, to be sown earlier harvest on *all soils*, and plowed in as manure; on our poorest lands, as a means of making them fertile for other cultivation, and which are now almost worthless. For this purpose, the first two years it should be sown twice a year; after which, the four crops being turned in the soil, we might expect it to be in a sufficiently productive state to be cultivated in that course the owner may think the best. Perhaps that would be to lay it down for sheep-pasture, as it is stated a small farmer in the village of Dusenan, having for some few years plowed in his lupins in full flower in the spring, and then sown rye, he found the field began to be covered with a wild white clover—it was a white sand, and had been turned quite dark from the quantity of humus left in the soil."

#### NOTES FOR THE MONTH—BY S. W.

THE COMING CROPS AND THE FUTURE PROSPERITY OF THE WEST.—I say West, because here in evergreened Western New York the crops are good, with at least one-third more corn in little Seneca than was ever grown here in any one season before, and farmers generally are *easy*. But there can be no doubt that the short crops of last year, throughout the great fast West, was a dispensation necessary to bring back the people to those habits of industry and self-denial which had given way to that fictitious pecuniary prosperity which preceded the revulsion of last year and the panic of the preceding autumn. Yet if ever the infliction of a short crop could be borne philosophically, it was perhaps last year, when there was no foreign demand to raise prices on the poor. Had the crops of 1858 been above the average, freights from Lake Michigan to the seaboard, instead of falling off 50 per cent., would have risen after harvest the close of navigation at least 50 per cent., and in spring—instead of falling below remuneration for water, and at a serious loss by rail—old rates at least would have been sustained. Then, in the

absence of all shipping demand for Europe, prices in the seaports must have fallen so low as to leave but little margin for the farmer. But now, with a prospect of good crops at the West, such is the competition created for western freights by the Pennsylvania, Baltimore, and the two New York railroads, that the great products of the West are to be taken from Chicago to New York at fabulously low rates, and by the Lakes and the Erie canal, freight must fall by the aid of reduced toll, steam, and the enlarged canal, to a rate lower than has yet been dreamed of. Again, a war in Europe is almost certain, which cannot fail to make a demand for all our agricultural surplus, cotton almost alone excepted. Added to this, the increased manufactures in our own country are rapidly appreciating and extending, making a home demand for western products, before which our exports of provisions and breadstuff now sink into insignificance. Even this little town, once a milling village on the Seneca outlet, that sent its hundred thousand barrels of choice flour to New York annually, now buys wheat and flour from the West for its own support. But to say nothing of other industries here, we have a phoenix from the ashes of the Waterloo flouring-mills, in the form of a woolen mill, that at this time employs over three hundred operatives, male and female, to whom more than \$5000 monthly is paid for wages. Then about \$150,000 is annually paid to the farmers of this region and farther west for fine wool. The operatives of this mill now eat only the flour made from the best western white wheat, as this county, once the first on the file for wheat, now, with here and there an individual exception, grows only the poor Mediterranean variety, and very little of that.

HARROWING IN ROTTEN MANURE FOR THE WHEAT CROP.—After that truly matchless farmer, JOHN JOHNSTON, not only insists on this mode of manuring as the most manure-saving and effective, and the experimental veteran editor of the *Genesee Farmer* gives a *quasi* approval to the theory, it is perhaps bootless for me to say that manure is more economically employed as a permanent amendment when plowed in, and none of those large lumps noticed by Mr. J. are to be seen above the surface of the prepared fallow. Yet there is no doubt that if manure can be well rotted without being washed or fire-fanged of its ammonia, it is the best immediate food for growing crops, and when harrowed into the wheat fallow, it will produce a more quickening effect on the incipient plants than it will if plowed under the surface. But I would respectfully ask, is it as permanent an amendment to the subsoil?—will it not, like Peruvian guano, be exhausted by the present crop, and what is hardly less important, has the soil below the surface been mechanically benefitted by the surface dressing?

To show how much more permanently amending green stall manure is to a clay soil like Mr. JOHNSTON'S, when plowed in deeply, than when applied to its surface in a semi-rotten state, I here give the result of my own experiment, which is none the less significant for being on a small scale. As long as I placed my manure on the surface and spaded it in, I found the stiff clay below, although under-drained, entirely unchanged mechanically; hence to make it pulverulent and absorbent, I began trenching in the fall, two spades deep, filling the

trenches one-third full of green manure in the winter, from the stable, coal ashes, &c. The result was, that after the second year's trenching and manuring, there was no more compact drab clay to be found within twenty inches of the surface; all had changed to a friable, chocolate colored loam; and what is better, instead of a continual need of top-dressing every year, it will bring as good crops of corn, beets, &c., year after year, without manure, as that part of the garden that is heavily surface-manured every year.

In the hot, dry summer of 1854, when every farmer's corn-leaves rolled and almost burned up, and the crop was short from drought, I had a larger growth of sweet corn and Lima beans than ever before. True, the corn-leaves rolled a little in the daytime, but they again expanded at dewy eve, and received the full benefit of the heavy nightly dews, which was denied to the unexpanded, sun-burned leaf. This success was alone due to frequent hoeings, and the influence of long green manure trenched in deeply the fall and winter before. It is true that top-dressing is nature's lavish plan of manuring, and it may be often profitably followed; but if we only reflect how many of the cereals and leguminosæ have been improved by man's culture, may we not also presume to improve on nature's economy in manuring, as well as in culture?—the more especially as such action is expressly in accordance with the divine decree that man shall live by the sweat of his face.

**THE GENESÉE FARMER AND ITS SECOND PREMIUMS.**—At Fredonia, that primitive gas-lit village of rich, grazing Chautauque, the agent of the *Farmer* takes \$20, the highest premium for the largest number of April subscribers; J. D. PALMER, of Thurlow, Canada West, takes \$19 for the next largest number. It may be a poser to a part of the editorial fraternity, how JOSEPH HARRIS is enabled to give so good a monthly of practical and original matter, unscissored, for the trifling sum of 37½ cents per annum, and pay such cash premiums to his local agents. But the fact is that these premiums stimulate the agents to labor with and stir up the obtuse mind of the rural community, to battle with their prejudices, and to conciliate their egotism, so far as to induce a single 37½ cent investment in book farming; and when once in for it, the paper soon becomes a household necessity, never thereafter to be dispensed with. Mr. HARRIS has the advantage of being to the manor born, and what is better, he is so much in love with his profession as a scientific and practical farmer, that the soil, and its capabilities of production under proper manuring and culture, is his constant study—making no other use of his early scientific training at LAWES' experimental farm at Rothamsted, England, than to adapt his experience there to the soil and climate of our country. His very instructive experiments on the culture of our king of cereals, Indian corn, have been detailed in the *Farmer* and in the *Transactions of the N. Y. State Agricultural Society*. For his outlay and pains-taking he was rewarded by the State premium of \$75, about one-third the amount it cost. What a pity that a portion of the thousands uselessly squandered by the patent office could not be applied to such practical purposes.

Waterloo, May 11, 1858.

## TIMOTHY GRASS, AND THE BEST TIME FOR CUTTING IT.

This grass, (*Phleum pratense*), so universally known and highly valued by American agriculturists, was originally introduced into the country by TIMOTHY HANSON, of Maryland, from whom it derives its name. It is known as catstail in England, and herdsgrass in the New England States. It is also a favorite grass in Sweden, where it is extensively cultivated. It is a perennial, bulb-rooted plant; the leaves are broader than those of most other grasses, and rough, with long sheath. In the early stages of its growth, it resembles a diminutive plant of Indian corn; stalk long and jointed, surmounted when mature by a long, hair-spikelet containing the seed.

The first year after sowing the seed, the young plants consist of single bulbs, scattered over the surface of the ground at considerable intervals, and rarely blossoming. In the spring of the second year the plant throws out a number of new bulbs, in a similar manner to the potato onion, shown in our illustration. These blossom a



ROOTS OF TIMOTHY.

A, original seedling bulb, now dead. B, B, &c., bulbs sprouting from A, and forming a stool of plants round it.

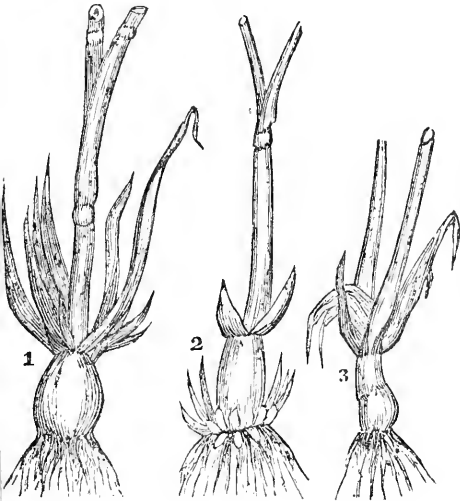
produce seed, but very unequally. Each succeeding plant throws out others again the following spring, till after three or four years we find the original single bulb is surrounded by a large circular stool of plants, several inches in diameter. We counted seventy-six bulbs in one stool, supposed to be three years from the seed. The plants at this age are in their prime, and produce the heaviest crops of hay. Two years after the plants have thrown out the new bulbs and given them a fair start, it shrinks up and dies, the bulb still remaining in the stool, but becoming hard and hollow, during the early stages of its growth in spring, while the new bulbs are forming, the plant is cut, or eaten close by animals, the bulb either dies, or carries on a struggling existence through the summer; the young bulbs are not properly developed, and the vital powers of the whole of the plants becomes so exhausted that the weather of autumn or the frosts of winter kill them.



As a meadow grass to cut for hay, timothy is unsurpassed by any other grass now cultivated. It possesses a large amount of nutritious matter, in comparison with other natural grasses. It has been a general practice among farmers to grow timothy along with clover; but the clover blossoms two weeks earlier, and the practice is now being discontinued, except where the large, or late variety of clover can be obtained.

Considerable discussion has been going on of late, among agriculturists, as to the proper time for getting timothy for hay. Most farmers prefer to cut it when it is full blown, and say that it is sweeter and contains more nourishment at this time. Others, again, believe that if the mowing is performed before the seed is fully developed, the plant will run out, from a failure to re-seed the ground. Dr. KIRTLAND, of Cleveland, Ohio, states that an intelligent practical farmer of his neighborhood, Mr. RICHARD McCRARY, after many careful observations on the growth of timothy, has arrived at the following propositions, which he illustrates with specimens:—

"1. Timothy grass is a perennial plant, which renews itself by an annual formation of "bulbs," or, perhaps more correctly speaking, tubers, in which all the vitality of the plant is concentrated during winter, (fig. 1.) These form, in whatever locality



the plant is found, without reference to dryness or moisture. From these, proceed the stalks which support the leaves and head, and from the same source spread out the numerous fibres forming the true roots.

2. To insure a perfect development of these tubers, a certain amount of nutrition must be assimilated in the leaves, and returned to the base of the plant through the stalk.

3. As soon as this process of nutrition is completed, it becomes manifest by the appearance of a state of desiccation, or dryness, always commencing above either the first or second joint of the stem, near the crown of the tuber. From this point, the desiccation gradually progresses upwards, and the last portion of the stalk that yields up its freshness is that adjoining the head. Co-incident

with the beginning of this process is the full development of the seed, and with its progress they mature. Its earliest appearance is evidence that both the tubers and seeds have received the requisite supplies of nutrition, and that neither the stalks nor the leaves are longer necessary to aid them in completing their maturity.

4. If the stalk be cut from the tuber before this evidence of maturity has appeared, the necessary supplies of nutrition will be arrested; their proper growth will cease, and an effort will be made to repair the injury, by sending out small lateral tubers, from which weak and unhealthy stalks will proceed, at the expense of the original tubers, (fig. 2.) All will ultimately perish, either by the drouth of autumn or the cold of winter.

5. The tubers, together with one or two of the lower joints of the stalk, remain fresh and green during the winter, if left to take their natural course; but if, by any means, this green portion be severed at any time of the year, the result will be the death of the plant, (fig. 3.)

From these five propositions, the following conclusions are drawn:—

1. That timothy grass cannot, under any circumstances, be adapted for pasture, as the close nipping of horses and sheep is fatal to the tubers, which are also extensively destroyed by swine.

2. That the proper period for mowing timothy is at any time after the process of desiccation has commenced on the stalk, as noticed in proposition 3. It is not very essential whether it is performed a week earlier or later, provided that evidence of maturity has become manifest.

3. All attempts at close shaving the sward should be avoided while using the scythe, and, in gauging mowing machines, care should be taken to set them to run so high that they will not cut the timothy below the second joint above the tuber."

Any farmer can satisfy himself as to the correctness of these representations, by a little observation in his own fields; and as the point is one of importance, it is worthy of careful attention.

If cut just after coming into bloom, it no doubt makes the most eatable hay for stock, but gives less weight per acre than if cut later, besides the risk of destroying the vitality of the plants for succeeding crops. Early cutting also renders it liable to be killed by drouth. If cut when fully ripe, it gives a much larger quantity of hay per acre, but hard and wiry, containing more condensed nutriment, and requiring to be cut up fine to enable horses or other stock to eat it properly. If allowed to ripen, its seed is a very exhausting crop to the soil. The best time to cut timothy would probably be, as soon as the seeds are fully formed, but before they begin to ripen. But as it is the latest of our grasses, and comes to the proper stage for cutting just about the commencement of the wheat harvest, many farmers have either no patience to wait till then, or they put off mowing their timothy till the wheat is secured,—in either case greatly to their own injury. Now that mowing machines and horse rakes are becoming plentiful and cheap, the work of hay-making can be expeditiously done, without interfering with other crops. Timothy, especially if grown by itself and cut with a machine when nearly ripe, requires but little more to

be done to make it into hay, in this dry climate, than to be raked up in the evening and put into large cocks, and carried to the barn next day, or as soon as convenient. If a few pounds of salt are thrown on each load as it is spread in the mow, all the acidity remaining in the hay will be corrected, and fermentation prevented. If clover is mixed with the timothy in a proportion not exceeding one-half, let the former wait till the latter is sufficiently mature; if the clover preponderates, the crop should be cut as soon as the clover is ready. Timothy has the disadvantage of being but a slow grower, after it has completed its maturity and commenced a second growth, which consists of leaves only; consequently it gives but little aftermath. It is then very nutritious, and keeps its greenness and vitality till late in the autumn, and may at that time be pastured by stock without injury to the plants.

In our dry, hot climate, farmers generally leave their grass, after cutting, too long exposed to the sun, and it then becomes dried up so that its best properties are evaporated. It is a far better plan to cure the hay by putting it in cocks the evening of the day it is cut, if the weather is dry and the grass is mature, and letting it remain so for a day or two, or until it can be drawn to the barn or stack at leisure, taking care that it is not left to be exposed to a passing shower, should one be apprehended.

J. M.

#### CULTIVATION OF TURNIPS.

MESSRS. EDITORS:—There is no kind of fodder of which so much can be raised on an acre of ground as turnips, carrots, or mangel wurzels, and none so well calculated to keep stock in a healthy, growing condition, through our long severe winters. The moisture of the roots seems to give them an appetite for coarse and dry fodder, which they would otherwise scarcely eat, and certainly not keep fat on, as they do where a moderate allowance of turnips is given to them daily.

In 1857, my crop of turnips, (ruta бага or purple-top Swede,) occupying an acre and three-quarters, stood second in competing for the county prize. Soil a sandy loam, rather gravelly. The mode of cultivation was as follows: Millet stubble plowed in the fall of 1856; plowed again May 22, 1857; and again June 14. Harrowed well after the two last plowings. On the 19th June, commenced making drills, with a plow, 30 inches apart; and continued, as the weather permitted, from day to day; manuring in the drills, with horse and cart, at the rate of 40 cart loads per acre of farm-yard manure of the previous winter. The drills were then split in the center by the plow, throwing the earth neatly over the manure, thus bringing the crown of the drill, on which the seed is sown, directly over the manure. The seed was sown at the rate of one and a half pounds per acre, with Murdoch's Turnip Drill, which has a heavy roller before and a light one behind the coulter which forms the furrow for the seed. About twenty drills only were made at once, and then manured and covered, to prevent the manure evaporating by exposure. The seed was then sown on the drills while the earth was fresh and moist. The drilling, manuring, and sowing, took six and a half days,

with a man and horse, and a boy to lead the horse when drawing the drill barrow. Finished by the 1st of July. Commenced hoeing and thinning the plants to 12 inches apart in the rows on the 17th of July, and continued from day to day, when the weather interrupted the hay-making, and in the mornings till the dew was off the hay—altogether about twenty days' work hoeing, and one day afterwards with a drill cultivator, which was run through them later in the season, when the weeds began to come up again. The taking up and storing was equal to eighteen and a half days' work. The yield of turnips averaged 735 bushels to the acre, weighing 65 lbs. per bushel—equal to 21 tons.

In most seasons, the drill cultivator can be run through the turnips before the hand-hoeing is done; but the season of 1857 was so moist that the turnips grew faster than the weeds, and the thinning had to be commenced unusually early.

There was not a weed to be seen in the field when the crop was taken up, and the ground was thus in fine order for the succeeding crop, which was spring wheat.

J. MACKELGAN, M. D.

Auster, C. W., Feb'y, 1859.

#### FACTS ABOUT MOWING MACHINES.

EDS. GENESEE FARMER:—In the volume for 1858, on page 210, after noticing the articles of E. A. BRNDY and others, you say, "let us have the facts," about the value of reaping and mowing machines. If you see fit to open the question for discussion in the present volume, I should like to give a few facts which have fallen under my observation.

Mr. BRNDY seems to labor under the impression that a mower or reaper will not cut, on the average, more than six acres per day; and he thinks a heavy bill for repairs is necessary. Being somewhat inclined to egotism, I will begin by stating my own individual experience. My usual rate of mowing is one acre per hour. I can do this in hot weather, and let my team stand still part of the time. I usually employ one hand, and by mowing one hour before breakfast, and two after, I have as much hay down as we can get in in one day. I get in one day what was mown the previous day. If the weather is threatening, we go into the cornfield, and hoe. Not having a gang of hands to board, I am comparatively independent of the weather; and having a machine, I can afford to wait for good hay weather. One of my neighbors, who cuts about 100 acres annually, says that one hour is longer than is necessary to cut one acre. Since he bought his machine, he has cut about 600 acres of grass, and has paid out just \$1 for repairs! Of course he is a careful man, but this is not an unusual case. I have used the machine three years, and have paid out \$1.50 for repairs, entirely for breakages caused by mowing stony meadows. There are some thirty or forty machines of the kind I use, (KETCHUM'S patent,) in use in this town and the adjoining one, and the total extras sold by the agent here, the past summer, amounted to a little over \$43,—of which full two-thirds was for the addition of the recent improvements to old machines. R. L. HOWARD, the manufacturer of the KETCHUM machine, offered four or five premiums the past season for the best mowing and reap-

ing done by that machine, and elicited the following facts:—

H. LATHROP cut 75 acres of grass, averaging 3 tons per acre, in 80 hours, and 60 acres of grain in 47 hours: no expense for repairs. D. Cox cut 113 acres grass in 58 hours, at a cost of \$1.08 for repairs. J. G. LELAND cut 50 acres of grass in 50 hours—80 cents for repairs, and 72 acres of grain in 50 hours—no repairs. C. P. IRWIN cut 60 acres of grass, averaging 2½ tons per acre, in 46 hours: no repairs. Another cut 50 acres of grass, averaging 2 tons, in 43¾ hours, at a cost of 10 cents for repairs. Another cut 1 acre in 20 minutes. These all are verified by affidavits of the surveyors and others, besides the men themselves. A man who lives just east of here, told me that he cut 3 acres of grass in 70 minutes, including stoppages to oil, &c.

I might continue, almost *ad infinitum*, but I think I have given facts enough to satisfy Mr. HARRIS, or even Mr. GADGEND himself. I once tried the experiment of mowing five acres of lodged clover by hand, and five acres with a machine, with the following result:—

Two men, 6 days each, and board, \$1.25 per day,.....	\$15 00
Mowing machine, (½ day,) 62½ cts. per acre,.....	3 12½
Difference, .....	\$11 87½

I had no machine at that time, and had to pay the above rates for mowing. The next year we had a machine of our own.

Your "itemizer," S. W., thinks the mowing machine will not be profitable for small farmers. One of my neighbors, who cuts about 20 acres annually, has a machine, and does all his haying himself, in this way:—There are some who, like our friend BUNDY, do not see the economy of buying a mowing machine at \$110, but sometimes they get cramped, and hire a machine. Neighbor S. mows for all such, at the rate of two acres for a day's work, in return. He usually cuts five or six acres in a half day, and gets 2½ or three days' work in payment: thus doing without any other hired help. I cut 36 acres of grass last summer, and 8 acres of grain, and hired 19 days help, doing the rest with my machine, after the fashion of my neighbor.

Westfield, N. Y.

D. A. A. NICHOLS.

NOTES FROM MAINE.

WE of this latitude are at present deep into the mysteries of farming—making every line draw—utterly regardless of wet or dry, old or new moons; for if we don't sow we can't expect to reap; and it behooves us of this land of fickle climate and short seasons to be up and doing. However, we can't grumble this season, for we have experienced first rate weather so far, and an early spring, if the expression be allowed. That venerable individual, the oldest inhabitant, can scarcely recollect one more favored. The first week of May was almost equal to midsummer. All of the earlier trees and shrubs were in leaf on the 10th inst.—some by the 6th. The buds of fruit trees are just bursting. The fruit principally cultivated hereabouts is the apple, of which fair crops are obtained. Its greatest enemy is the borer, which yearly commits great havoc among the trees. The principal varieties cultivated are the *Baldwin* and *Roxbury Russett*,

winter; and *Frye* and *Sops of Wine*, summer. The *Frye* is peculiar to this section, and is a very early and desirable fruit. Of Plums, but few are raised, the winter of 1856-57 having almost totally destroyed the trees. Cherries struggle hard against the black-knot; but those who take proper care of their trees, generally obtain a fair supply.

Of the small fruits we generally have a plentiful supply in their seasons. Of gooseberries, the *Houghton* is most prized, and is beginning to be extensively grown. Some English varieties are cultivated to a limited extent. Strawberries, raspberries and blackberries are quite plentiful in their natural state. They are picked and sold in this city, in their season, at the following prices:—Strawberries, from 12 to 18 cents per quart; raspberries, at 5 and 8 cents per quart, and blackberries at 10 and 14 cents per quart. Blackberries are becoming more scarce yearly, and some persons are planting the native and the improved varieties also. Of peaches and pears, particularly the former, the specimens are "few and far between." Of currants, most every one has a hedge or row, and that is about all you can say about it.

I find that the following is the way to grow nice large currants, even of our common red varieties: Select a good, thrifty shoot, of one or at most two years growth. If you can not obtain one with roots, take it without; cut the end smoothly, near a bud if convenient; then force the shoot into the earth three or four inches. After it has rooted firmly, and is growing finely, rub off all buds and suckers except two or three at the top, which allow to grow and form a head, thus making a miniature tree. If your ground is rich, in two years you will raise currants worth calling fruit.

Bellevue, Maine, May 13, 1859. GEO. E. BRACKETT.

TO DESTROY POISON SUMAC.

MESSES. EDITORS:—Poison sumac I used to handle with impunity, but lately it sometimes pays me pretty dear for my impudence. The best way to destroy it, is to grub it out by the roots, as we do our oak grubs here. Now don't be alarmed, for this poison sumac can be tamed. Having a piece of swamp on the back part of my farm, with much sumac in it, which I wanted to convert into meadow, I went to work determined to conquer it. In the winter, when the ground was frozen and without snow, I took a sharp axe and cut around the root below the stool, took it out with a ball of muck with it, and piled them up the same as any brush. It poisoned me some at first, but I rubbed on some spirits of camphor and kept to work; after a few days it did not affect me at all. It does not poison as easily in cold weather as in warm. I have some that has been grubbed out in this way two years, and not a sprout has started.

To prevent getting poisoned last August, having occasion to cut some brush with sumac amongst it, I cut off the footstalk of a leaf, chewed it, and swallowed the juice, then cut and piled the sumac with the rest, without getting poisoned at all. To cure the poisonous effects of the sumac, I take some byronia in solution, once every 15 minutes; in two hours time I feel quite easy. *Byronia* is said to be almost a specific for it.

Battle Creek, Mich.

J. A. ROBINSON.

## DISEASES AMONG CATTLE.

UPON the practice of boring the horns, cutting off the tails, and similar remedies for diseased animals, Dr. G. H. DADD, veterinary surgeon, Boston, Mass., thus writes to the *Valley Farmer*:—

"I wonder that intelligent men, christians, and men who have been, for many years, the owners of high priced and rare specimens of what we are pleased to term the *inferior* orders of creation, should so far disregard the feelings and claims which the latter have on them, as to permit the barbarities of by-gone days to be enacted over again, for no earthly use than to harass and torment a sick, and perhaps dying animal. For every intelligent man must be aware that cattle are as susceptible to pain as ourselves, and that the introduction of a *spike gimlet*, at the base of the horn, *low down*, must put the animal to an immense amount of torment; for in the region indicated, the parts are highly organized and very sensitive. It gives me pleasure to find that you have a heart to feel for these much abused specimens of creative power, and also, that you have the manliness to denounce the practice of cruelty to animals, although it attempts to shield itself under the garb of science, but you and your readers may rest assured that all *educated* veterinary surgeons consider the practice of boring cow's horns and cutting off their tails, both cruel and unnecessary. Some of your readers may ask, How are we, who have not studied into the matter, to know that such operations are *cruel* and *unnecessary*? I answer, appeal to your own intelligence; would you suffer an ignorant pretender or a neighbor, having no more experience in the treatment of disease than yourselves, to send a *gimlet* into the frontal sinuses of your sick friend, wife, or child, for no other reason than that the region of the same was hot and feverish? Where is the man who would stand by and witness such an outrageous procedure? Some persons may contend that animals recover after such operations have been performed. Granted, but that is no proof of the efficacy of the same; the recuperative powers of the system are often strong enough to bear the animal safely through the disease and the wretched treatment."

## PLANS FOR BARN, &amp;c.

EDS. GENESEE FARMER:—I would like to see some more plans for barns in the *Genesee Farmer*—something cheaper and suitable for a 50 acre farm. I have tried to contrive something very cheap and very convenient, but have not yet arrived at any satisfactory result. In providing shelter for cattle, I would prefer a large covered shed to stables, provided they were not too numerous to interfere ungraciously with each other's feeding; or if they were tied up to feed, I would loose them to sleep. As to the construction of a shed, I suppose nothing could be cheaper than a lean-to to a barn, which would form one side; the opposite one I would leave open, closing the two ends, and providing along them racks and mangers. The advantages would be, the stock would have air and exercise; they would deposit their manure under cover, which, with waste straw and refuse

bedding from the horses, &c., would provide a much warmer bed than a plank or earthen floor, even if well littered; the pigs would also prefer it to a sty, and would not only add to the manure heap, but improve it by mixing. Manure so made would heat and ferment, and be ready for use the same spring, instead of being then a frozen heap of snow, dung, and undecomposed straw; or it might be drawn and spread upon the land, or built into a heap in the summer fallow, ready for use, during sleighing time. Spread upon meadows, the melting snows would wash it into the roots of the grass. Or if the summer fallow were distant from the barn yard, there would be an advantage in hauling it out on the sleigh in winter, instead of the wagon in summer.

Some months since there were discussions in the *Farmer* as to the best or any practicable method of fixing the ammonia arising from the dung hill. I have thought perhaps a volatile acid was the best means of fixing a volatile alkali, and that, in this wooded country, nothing else would be so good and so cheap as pyroligneous acid. The crude acid, with the emphyrenematic flavor, might be better than pure acid, as the smell, if sufficiently durable, might prevent the attacks of the Wheat midge, or other insects, many insects being very susceptible of annoyance to their olfactory nerves. J. G. S.

*Innisfil, C. W., May, 1859.*

## ROAD MAKING.

EDS. GENESEE FARMER:—I read, with much interest, several communications in your May number, on the manner in which roads should be worked and improved. I am of the opinion that the present system which regulates our road work is very good, only be careful to place the direction of each district's work in a good, thorough, faithful man's hands. I think that the inhabitants of each road district are more competent to judge of where and how the road work should be performed than any one single man can be, who might be appointed by the town. There are so many different kinds of soils in this county, that it would be a difficult matter for any man little acquainted with them to judge as correctly when and how to work either, as those who constantly travel over them.

The importance of making our roads up in a more passable condition, is becoming day by day more apparent. Our country is improving, and our farmers are improving and cultivating their farms to much better advantage, in clearing out the gullies of their logs and trash, and cleaning the briar lots of their briars, thistles, and noxious weeds, and with this march of improvement in farming, spring up a pride in the breast of farmers with reference to the road which passes by and through their farms, and they go at them, in the same good, wholesome spirit, to make them good by their own manual labor, that they would any cash-paying task on their farms. And let me here add that the inhabitants of this town, the last year performed, and returned done, more labor than was assessed for them to do, thereby showing an interest in the improvement of the roads of this town which is certainly commendable. Labor should invariably be performed by the 20th of June, and as much earlier as practicable. Then the

work has ample time to settle and become hard, and will not generally rut up in the Fall; and as to steep hills, or moderate descents, long experience will best dictate how to manage. It is to the interest of every farmer to have a good road by his house, and in order to have one, we must put hand to the plow with right good will, and the thing is done.

E. J. WILCOX.  
Arkwright, Chautauque Co., N. Y. May, 1859.

### CULTURE OF INDIAN CORN.

THE grand points in the culture of corn, are good ground, deeply and thoroughly plowed and well prepared, seasonable and careful planting, early and thorough cultivation and hoeing, and eradication of weeds and grass until the crop is grown.

I have succeeded, some four or five times, in raising from *eighty to one hundred and two bushels of shelled corn per acre, by measure, in a region where thirty bushels is probably a full average crop.* My course has been to break a sward, say about seven or eight inches deep, or to highly manure and thoroughly plow other land; prepare well, and plant in good season—that is, when I think the weather is such as to produce quick germination. As soon as the corn is sufficiently large to see the rows, we commence with the cultivator and hand-hoe, loosen the surface and clean the hills of weeds, and carefully place a small quantity of loose mold around the stalks; after which we endeavor to keep the surface loose and clean during the season, particularly keeping the hill clean, and occasionally adding a little fresh loose mold.

E. H.

Berlin, Ohio, May, 1859.

ANSWERS TO SOME OF THE INQUIRIES OF J. S., IN THE APRIL No.—Ewes should breed at two years old. The ordinary breed of sheep will do very well until six years old. A good buck will serve fifty ewes. The best way to manage that business, is not to let him run with the ewes, but keep him in an adjoining field; put a ridgling with the ewes, by which you can know when they are in season; then turn them to the buck, one at a time. In this way, he will serve one hundred ewes. The Durhams are not so tender, but any breed of cattle will degenerate if care is not taken in breeding; but the Short-Horns can be got as large at three years old as the natives can at five. Then suppose they do take a little more feed—there is a much quicker return. Heifers should not breed until four years old. It is an advantage, no doubt, to breed from large cows, but I should not like the bulls to be very small, as the progeny is apt to bear the greatest resemblance to the male parent. A little boiled flax seed given to a cow once a day for three weeks before calving, prevents any difficulty in cleaning. I have known cows to take the bull in fifteen days after calving. Some go as many months. They generally return in three weeks.—J. N. Nassagawega, C. W.

TRAIN HORSES TO WALK.—The *Michigan Farmer* well observes: "A plow-horse should above all things be a good walker. The walking gait is not cultivated enough in training horses. Only consider what a team that could walk four miles an hour for ten hours per day, could do towards hurrying forward spring work."

### ON KEEPING HENS TO PRODUCE EGGS IN WINTER.

Mr. WILSON says that the person who expects his hens to lay much in summer, after laying all winter, will be disappointed. This is quite different from my experience, as my fowls lay winter and summer. When they shed their feathers, they generally stop laying for two or three weeks; but the rest of the time they always lay, except when sitting or trying to sit. For winter quarters, they have a house, filled in next the outside with buck-wheat straw, about a foot thick, all around and above, and free access to the barn and stables. They always have lime in some shape, where they can get at it. But perhaps my better success is owing in part to the breeds of fowls that I keep. I have the White Dorkings, and a breed of large Asiatic fowls called the Javas. They are of a glossy, greenish black color, and are heavier than any other fowls I have ever met with. They take less feed than the common fowls to make a pound of flesh, and lay eggs which will average about six to the pound; and I have succeeded in getting a higher price for them than others obtained, on account of their being so much larger. Through the sitting season, we always can sell all we can spare at a higher price for sitting.

M. E. TANNER.

SUGAR CANE.—On the 6th of June last year, we planted about three acres of Chinese Sugar Cane, some two or three days after which a very heavy rain fell, which washed out a great portion of the seed, and so baked the ground that not more than one-tenth of it germinated. We, however, cultivated what stood, and manufactured it into syrup in the fall, making about three hundred gallons, (or one hundred per acre,) which we retailed at six shillings per gallon, having sold all but a few gallons, which we kept for our own use.

We crushed the cane on one of Messrs. HEDGES, FREE & Co.'s (of Cincinnati,) cast iron sugar mills,—on which, besides crushing our own, we crushed about six thousand gallons of juice for our neighbors—sufficient to make about one thousand gallons of syrup. We boiled in common cast iron kettles, placed on a brick furnace in such a manner that we could remove them at pleasure. Sometimes we used lime to neutralize the acidity of the juice, and sometimes we used nothing. We always filtered or strained the juice, and thoroughly skimmed while boiling.—E. H., Holmes Co., O.

A CHEAP PAINT.—For *Outside Work*.—One bushel of unslaked lime. Slake with cold water. When slaked, add 20 pounds of Spanish whiting, 17 pounds of salt, 12 of sugar. Strain through a wire sieve, and it is fit for use after reducing with cold water. It may be laid on with a white-wash brush.

For *Inside Walls*.—One bushel unslaked lime, 3 pounds of sugar, 5 pounds of salt, and prepare as above.

To color these paints straw color, use yellow ochre, instead of whiting; lemon color, ochre and chrome yellow; lead and slat, lampblack; blue indigo; green, chrome green.

CISTERN CEMENT.—Two parts ashes, three of clay, and one of sand, mixed with linseed oil.



THE HOG—ITS HISTORY, &c.

ALL the varieties of the hog originate in the Wild Boar, which is considered the parent of the domestic hog. It is found in most of the temperate regions of Europe, Asia, and Africa.

In England and Scotland, a few centuries since, the wild boar chase was a sport in great repute with the nobles. SHAKESPEARE describes it with graphic accuracy. And if in those countries men are now better employed, the sport has now become obsolete. It is still practiced in India, and in those districts of Europe in which the animal maintains his hold. He is now common in the extensive forests of France, Germany, Prussia, and Hungary, as well as in Spain and some other countries.

The hog does not appear to have been indigenuous to our country, but was brought hither by the early voyagers from the old world, each bringing them from their own country; and in the Eastern States especially it is said a few of the breeds still retain traces of the old English character. From its nature and habits, the hog was the most useful and profitable of all animals bred by the early settlers. It was their surest resource during the first years of toil and hardship. It arrived earlier at maturity, required less care, sought out for the most part its own food, was the least subject to accidents and diseases in a new situation, and therefore best repaid any portion of attention bestowed on breeding and rearing it.

Until within a few years, very little attention has been paid to the breeds of our farm stock; and hogs, being considered an inferior species of domestic animals, have been the last to engage the attention of the farmer; and even at the present day, in many districts of our country, the old, unprofitable kinds of this animal continue to prevail. Indeed, systematic breeding, with a view to improve the form and value of the animal, may be said to have hardly commenced among us, the improvements which are perceptible being rather the fruits of European than American skill.

A common error, in this country, has been to regard more the size of the animal than its symmetry or good points—to estimate a breed according to the great weight which it could be made to attain, rather than the profit with which it would be fitted to the hands of the butcher—the most material point to the farmer. But experience is teaching us a new lesson on this head. Butchers now judge of an animal according to the good points, or most valuable meat, which it carries. Breeders

have learned to prefer those which with a given quantity of food will lay on the most meat. And the consumer has learned, too, that meat that shows the most solid fat, is neither the most healthy, the most savory, nor the most economical. It is the due admixture of fat and lean, or the prevalence of what is termed "fat lean"—such as is seen in the Devonshire ox and the South-Down sheep—that gives the greatest value to the butcher's meat.

We are perfectly satisfied, from long experience, that the best and most profitable breed of swine for the farmer, is that breed which will nearly mature at eight to twelve months old; and then weigh, when well fattened and dressed, from 250 to 300 lbs. A pig that has to be wintered and kept till sixteen to eighteen months old before fattened, rarely pays for itself, at the ordinary price of pork; and the average weight of these, in the United States, even at a year and a half old, we do not believe exceed 300 lbs.

We never liked the long-legged, slab-sided, lopped-eared, razor-backed grunTERS, except for the race-course, for the reason that they eat too much food to keep them in "good working order." For porkers, give us the short-legged, small-boned, round-bodied, compact, quiet, contented, hearty pig, with sufficient good sense to know when he has eaten enough, and when to go and lie down to be rubbed or curried; and, withal, a hog with a remarkably good disposition;—in short, a hog—such an one as is figured at the head of this article—*a real, genuine Suffolk.*

The Suffolk is a hearty, quiet, and thrifty breed. They grow rapidly, are docile, contented, and good looking. They are white, well formed, compact, short-legged, hardy animals, equal in point of value to the best. By crossing with the coarser and slower growing sort, they will much improve the latter.

In our cities and villages, an immense amount of pork is consumed in a fresh state; and for this purpose, small hogs are much better adapted than large ones. They should be small-boned, not over fat, but meaty, plump, fine-grained pigs, weighing, when dressed, from fifty to one hundred pounds. It is of great consequence, also, that they should be varieties which give good-flavored or well-tasted meat. There is a vast difference in swine, in this respect, though some persons will not acknowledge it. For the above purpose, the Suffolk is undoubtedly the hog.

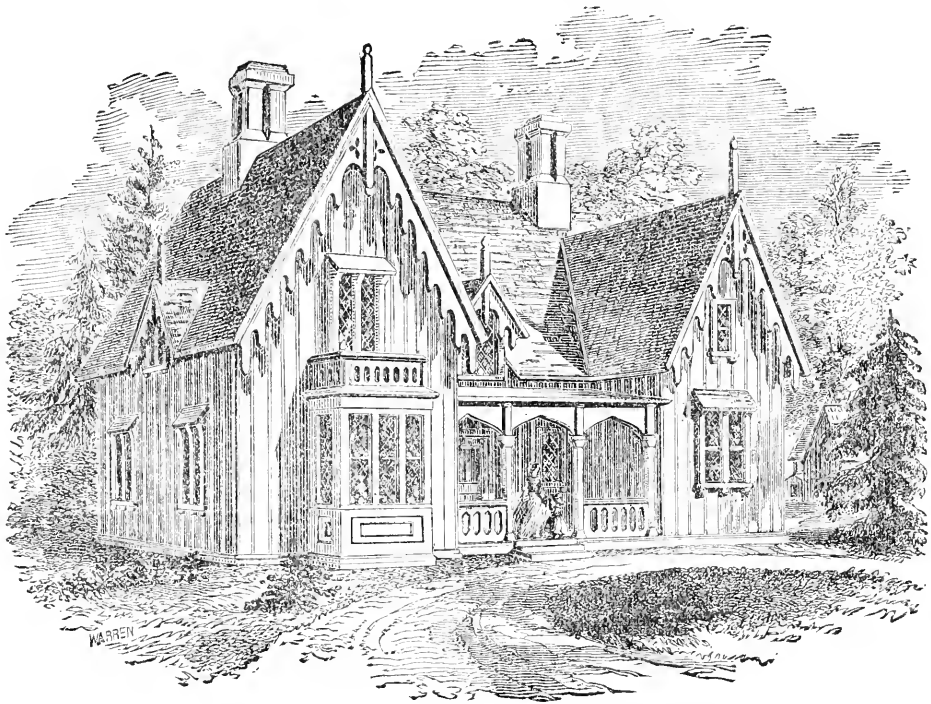
In order to get pigs to weigh well, they must come early. February, in the Southern; March, in the Middle; and April, in the Northern States; are the best months to drop pigs. Feed them, from the start, all they will eat; and they will be ready to kill in November and December. Thus you will dispense with wintering any except those reserved for breeding.

The animal whose portrait is figured above, was bred by M. VASSAR, Esq., Spring-side, near Poughkeepsie, N. Y., and sold to Hon. EDWIN R. BROWN, Mount Hope, Miss., and to which was awarded the first prize for the best sow of any breed shown at the State Fair of Mississippi, in November last. She was of the pure Suffolk breed.

Spring-side, N. Y., May, 1853.

C. N. BEMENT.

It may sometimes be economy to buy manure; but, as a general rule, only to get the land in heart to grow manure.



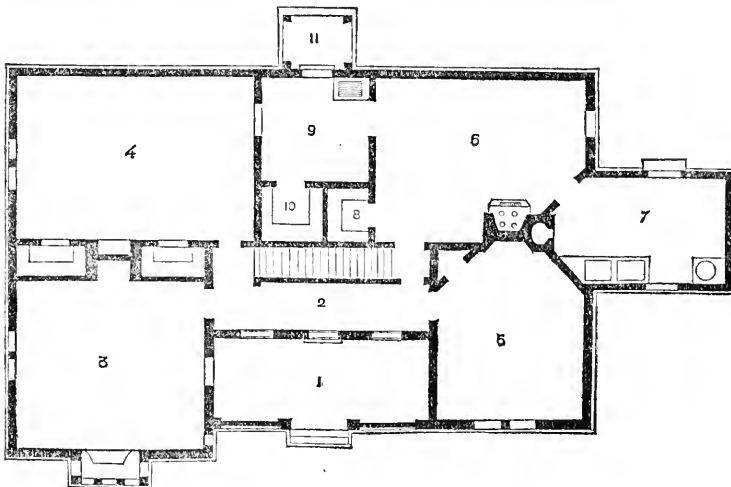
DESIGN FOR A COUNTRY RESIDENCE.

**DESIGN FOR A COUNTRY RESIDENCE.**

For a situation away from the city, where the owner is not restricted to a four-rod lot, but whose estate is measured by the acre, we think the accompanying a very appropriate design. We offer a dwelling, the leading features of which are of the

rural gothic style, characterized by the verge-boards, pointed arches of the veranda and porch, lattice-windows, and the general prevalence of modified gothic features.

The following is the description of the plan:— No. 1, veranda; No. 2, hall, containing stairs to the chambers, with a private, enclosed staircase



GROUND PLAN OF THE ABOVE DESIGN.

under these, leading to the cellar. Opening from the hall, No. 3, is the parlor, 15 ft. by 16, in the front of which is a bay-window, which may be fur-

nished with a cushioned seat. No. 4, living-room, 14 ft. by 21, containing a large closet on each side of the chimney-breast, and communicating by



means of the pantry, No. 9, with the kitchen, No. 6. The pantry is to be furnished with shelves and sink, contains a store-room, No. 10, and opens upon a small stoop, No. 11, which shields the rear entrance to the house. The kitchen is 14 ft. by 18. No. 7 is a one-story addition, 9 ft. by 15, containing a wash-room, fitted with a boiler and stationary tubs. A door opens from this room to the yard. No. 5 may be used either as a bed-room or a library; it is 13 feet by 15.

The second story contains four good-sized chambers, besides dressing-rooms, closets, a bath-room, &c. Height of first story, 10 ft.; do. of 2d, 8½ ft.

**CONSTRUCTION.**—This is a frame house. The outside covering to be vertical weather-boarding, of uniform width; the joints to be tongued and grooved and covered with battens. The verge-boards, window and door trimmings, and other ornamental details, to be sawn from 3½-inch plank. The interior is to be plain finished in the two principal stories, and the attic may be left unfinished, if desired. Cost from \$2800 to \$3000.

Lynn, Mass.

G. E. HARNEY.

#### "MANAGEMENT OF CALVES, &c."

**EDS. GENESEE FARMER:**—Your correspondent, J. N., "thinks little" of my manner of feeding calves, but goes on with a long criticism upon it.

Was the game worth the ammunition? He says: "Sour milk is no feed for calves."

If he will consult the lists of premiums of the Jefferson County Agricultural Society, he can there find what it *has* done for me; and if he will "call around" next September, I will show him what it is doing this season.

If he had "thought" more of his subject, he would not have committed the error of saying that a calf was more "stupid" at two days old than at two minutes. Any "old woman" could have told him better.

J. N. thinks "sour milk might do for drink for a calf at three or four months old." Would he recommend a young farmer to give a calf his "belly full" of new milk, and then give him a pailful of sour milk, just for "drink?"

Which would be the most "trouble," to build temporary stanchions to feed in, or to feed in a common trough, and stand by at every meal, with a club, to admonish the more greedy that he had his "belly full?"

Your correspondent says he "would sooner take a calf from a cow as soon as he can stand, and teach him to drink, before he learns to suck?" Can he do it? I will pay a small premium for that knowledge, whether it comes from an "old woman," or some "able correspondent."

"Care should be taken not to let them drink too fast." Please tell us how you do it.

I have raised a number of fine cattle on "skimmed milk." I sold a yoke of steers, the 12th of December last, that were two years old, for \$80; and I was offered \$20 for a heifer, of the same age, the same day. These were fed in the manner described in the article that "astonished" your correspondent so much.

If J. N. will give us his name and post office address, if I ever "go that way," I should be pleased to take a look at his calves.

E. MAYNARD.

#### UNDERDRAINING ECONOMICALLY.

**EDS. GENESEE FARMER:**—The first requisite to successfully underdrain a field or piece of ground, is to select a good outlet for the water, and ever after see that this outlet is kept open and clear from all obstructions. Then mark your ditches so as to run along side of the hill as much as possible, and not up and down the slope of the ground, giving them simply fall enough to carry off the water. To open the ditches, I take an old iron plow, and break off all the mould-board I can without injuring the share; then with one good horse, (or two, one before the other,) I plow the ditch 2½ feet deep and just wide enough to permit a shovel to work well in the bottom of the ditch. This saves nearly one-half the labor in opening the ditch. The earth is then thrown out with a shovel on each side. Then draw your stone and throw them alongside your drains, and if any are too large, break them before you put them in the drains. I throw them in without any regard to how they may lie, and if they are not too large, nor thin, flat stones, there is no danger but that the water will find its way through. Break them over the top, and level them; then put some straw over them, to keep the earth from working down among the stones until it gets settled; then run your plow along with your furrow horse in the ditch, and in one hour you can cover a great many drains. Be sure the stones are so far from the surface that your plow will never touch them, as in that case the soil would wash down and close the drains. If there is any danger of surface water running over the top of the drains and washing off the soil, plow a few furrows on it, and leave open furrows a few feet from the drain, on each side, to carry off the surface water. I have seen drains rendered useless by having the soil washed off the stones, when the wash would soon close them up.

Westmoreland Co., Pa.

H. S. KINDIG.

#### PRESERVING SWEET POTATOES.

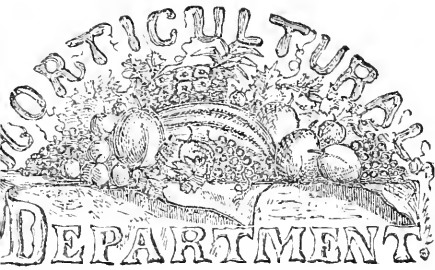
**EDS. GENESEE FARMER:**—Permit me to give your inquiring friend, G. W. B., of Rossville, Ind., the requested information concerning the most economical method of preserving sweet potatoes for winter use and spring sprouting. It is this: In the fall, collect from the road the dust that has been formed of a mixture of sand and clay, and dry it thoroughly, by either placing it on a platform in the sun, or in a kiln. Now take an old barrel, put in a thin layer of the dust on the bottom, then a layer of potatoes, one deep only, then another of sand, so as to completely cover them, &c., until your barrel is filled, if you happen to have enough to do it. Keep the barrels, after being filled, in a dry place until frosty weather; then remove them to your kitchen loft, where they can have the benefit of the fire below to keep them from freezing, and also from becoming damp, either of which causes them to rot immediately.

Now, if you can keep "Bridget" from digging them all out and roasting them, you will have them sound and lively the first of May. Indeed, we have kept them a whole year in this manner, and have practiced it with uniform success for a number of years.

D. P.

Martinsburg, Ohio, May, 1859.

Limerick, N. Y., April, 1859.



### SULPHUR FOR MILDEW ON THE GRAPE.

When at Quincy, Ill., last summer, we recommended to a gentleman whose grape vines were much affected by mildew, the use of sulphur; and he now writes us for more definite information in regard to its action, and the manner of application. Powdered sulphur dusted on the affected parts, for many years, been known as a remedy for mildew on the peach. It is only since 1846 that grape mildew has attracted much attention; since then, its ravages, some years, have been extensive in the wine districts of Europe as to create much alarm, but it is now demonstrated that judicious application of sulphur is a certain remedy—and the only one.

The object to be aimed at in applying the sulphur, is merely to bring it in contact with the mildew. This can be done by simply throwing the sulphur on the vines and bunches. Quite a number of machines, called sulphurators, have been invented in England for this purpose, resembling, somewhat, a miniature fanning-mill—the sulphur being scattered on the plants by the force of the wind. They are used extensively in the English vineyards—sulphur being found equally effectual as a remedy for the hop mildew.

Sulphur volatilizes rapidly at 180°, and the fumes destroy the mildew. In greenhouses, therefore, a good method is to scatter sulphur on the hot water pipes, or whitewash them with a mixture of four ounces of sulphur (black sulphur is considered the best) and four ounces of quick lime, dissolved in five gallons of water, closing the house afterwards for a thirty minutes to an hour, according to the prevalence of the disease. If sulphur is ignited, sulphurous acid gas is formed, which destroys the leaves, as well as the mildew. It will not do, therefore, to burn the sulphur.

Sulphur is insoluble in water. But if one pound of flowers of sulphur, and an equal measure of quick lime, are boiled for ten minutes in a glazed earthen vessel with five pints of water, hyposulphite of lime is formed, which is very soluble. It should be con-

stantly stirred while boiling. It is then allowed to settle, and the clear liquid is, when cool, ready for use, after being mixed with one hundred parts of water. The vines are syringed with this water. This is effectual, economical, and easily applied on a large scale.

This hyposulphite of lime may easily be obtained by leaching the refuse lime of the gas-works. The hyposulphite is very soluble, and the less water used for the purpose the better, in order to avoid dissolving other substances. It should afterwards be largely diluted with water, and applied with the syringe, as before recommended.

If seven pounds of sulphur and one pound of lime are boiled in water for several hours, pentasulphuret of calcium is formed. This substance contains about eighty per cent. of sulphur, and is quite soluble in water. We have never seen it recommended for mildew, but think it eminently worthy of trial. It is the sulphur, and not the lime, that is the effective agent; and the less of the latter in proportion to the former the better. The pentasulphuret of calcium contains more than ten times as much sulphur, in proportion to the lime, as the hyposulphite of lime. It approximates closely to a solution of sulphur.

We hope some of our readers will experiment with this compound, not only on the vine, but on the gooseberry, the mildew of which is closely allied to that of the grape. It is not improbable, too, that it would be useful in preventing the cracking of the pear, which is now generally conceded to be caused by a fungus.

### RINGING THE VINE.

In 1857, M. BOURGEOIS called the attention of the Paris Horticultural Society to his experiments in ringing the grape vine, and stated that the process, under proper conditions, caused the grapes to ripen a fortnight earlier, and to produce larger berries. A committee was appointed to visit his grounds, near Ramboillet, and they published a report confirming in the main the statements of M. BOURGEOIS.

Since then the subject has excited considerable interest in France and also in England. Numerous experiments have been made, and the results are on the whole very favorable. At the meeting of the Paris Horticultural Society, last autumn, M. BOURGEOIS exhibited several pieces of bearing wood, each with two or three shoots, some of which had been ringed and the others left to themselves. The latter had only bunches in the common condition, while the contiguous ringed shoot bore a superb

bunch with magnificent berries, each *twice as large as the other*. This was the case with every piece of bearing wood in which one shoot had been ringed and the other not. In the opinion of M. BOURGEOIS, the following advantages belong to the ringing system: A fortnight's earliness, finer berries, and better quality.

The operation consists simply in removing, when the vine is about to flower, a *ring of bark something less than half an inch wide just below the insertion of the bunch*. As the shoot is eventually destroyed by the operation, such shoots only should be ringed as would have to be cut out at the next year's pruning.

At the exhibition of the N. Y. State Ag. Society, last year, by far the largest and best ripened bunch of *Isabellas* was shown by a gentleman from Chautauque county. They were truly magnificent. The shoot on which they grew had been accidentally girdled below the bunch by the wire that fastened it to the trellis.

Ringing trees to promote fruitfulness is no new thing. KNIGHT directed his attention to the subject for many years, and his remarks on the cause of the phenomenon are worth quoting:

"The true sap of trees is wholly generated in their leaves, from which it descends through their bark to the extremities of their roots, depositing in its course the matter which is successively added to the tree, whilst whatever portion of such sap is not thus expended, sinks into the albumen, and joins the ascending current, to which it communicates powers not possessed by the recently absorbed fluid. When the course of the descending current is intercepted, that naturally stagnates and accumulates above the decorticated space; whence it is repulsed and carried upwards, to be expended in an increased production of blossoms and of fruit; and, consistently with these conclusions, I have found that part of the albumen which is situated above the decorticated space to exceed in specific gravity very considerably that which lies below it. The repulsion of the descending fluid, therefore accounts, I conceive, satisfactorily for the increased production of blossoms, and more rapid growth of the fruit upon the decorticated branch; but there are causes which operate in promoting its more early maturity. The part of the branch which is below the decorticated space is ill supplied with nutriment, and ceases almost to grow; it in consequence operates less actively in impelling the ascending current of sap, which must also be impeded in its progress through the decorticated space. The parts which are above it must, therefore, be less abundantly supplied with moisture, and drouth in such cases always operates very powerfully in accelerating maturity. When the branch is small, or the space from which the bark has been taken off is considerable, it almost always operates in excess; a morbid state of early maturity is induced and the fruit is worthless.

If this view of the effects of partial decortication, or ringing, be a just one, it follows that much

of the success of the operation must be dependent upon the selection of proper seasons, and upon the mode of performing it being well adapted to the object of the operator. If that be the production of blossoms, or the means of making the blossom set more freely, the ring of bark should be taken off early in the summer preceding the period which blossoms are required; but if the enlargement and more early maturity of the fruit be the objects, the operation should be delayed till the bark will readily part from the albumen in the spring. The breadth of the decorticated space must be adapted to the size of the branch; but I have never witnessed any except injurious effect whenever the experiment has been made upon very small or very young branches, for such do not come debilitated and sickly, long before the fruit can acquire a proper state of maturity."

The latter part of this extract is at variance with the experience of M. BOURGEOIS; but Mr. KNIGHT seems never to have experimented on the vine. On the whole, he seems to have preferred ligatures to ringing. He found a string drawn tightly round a branch to answer in a great measure all the purposes of ringing. M. BOURGEOIS, however, writes that on the vine "ligatures do not answer nearly as well as rings."

We hope our readers will try ringing the vine this summer, and report the results.

#### GAS TAR FOR PEACH TREES.

A MARYLAND correspondent of the *American Farmer* says that, after having tried all sorts of remedies to protect his peach trees against the borer without success, he concluded to try "gas tar." He says: "I cleared away the earth from the body and roots of the tree to the depth of six inches, carefully taking out all the worms I could find; and as soon as the dirt on the tree became dry, I had it well rubbed off with a corn-cob, leaving the bark bare. Then, with a paint brush I applied the tar in a thick coat to the tree, from the roots to some three inches above the growth. After a day the holes were again filled with earth and so left. My first experiment was in August 1855. In the spring of 1856 I examined the trees and found them clear of worms; and finding that gas tar had not injured them, I determined to paint the peach, apricot and plum trees in my garden of the same size to bear fruit, and about the middle of May I did so. I examined the trees next spring, and found the whole of them free from worms, and in a healthy, vigorous state.

I had all my trees painted again in the spring 1858, and no one could desire trees more beautiful and more free from worms. I think the trees should be painted every year, from the middle of May to early in June."



GOOSEBERRY SAW-FLY.

our gooseberry bushes are attacked by this in-

There are hundreds of caterpillars on a single leaf. Some of the bushes at this time (May 20) are completely defoliated, while others adjoining are as yet, untouched.

This same insect (*Nematus trimaculatus*) was very destructive to currant bushes last year, in this section; and a cut which we had engraved for the Farmer at that time, may not be uninteresting to many of our new subscribers.

The flies emerge from their winter quarters about the middle of April, and the female soon after deposits her eggs on the under side of the leaves. The larvae are hatched in about a week, and commence feeding on the leaf. The broods appear in succession from May till October, but in greatest numbers in June. The early brood of caterpillars descend into the earth, spinning themselves a yellowish cocoon. Here they undergo their transformations, and emerge as flies in about three weeks. The later broods descend in the same way, but the larvae lie in the ground all winter.

Slacked lime, scattered over the bushes while the caterpillars are on, is said to be a good remedy. It should be applied one two or three times, and the earlier in the season the better. Syringing the bushes with water heated to 140°, will kill the caterpillars, without injuring the foliage. By spreading cloths under the bushes, and then jarring off the caterpillars, many of them may be easily destroyed. A little care for a few days, in this way, and in picking them off the bushes, will be effectual.

## LIGNITE TO DESTROY INSECTS.

THE London *Cottage Gardener* last year gave an account of the discovery of a black powder, which proved very destructive to insects. It also destroyed the mildew on grapes, when dusted on an infected bush. It did not injure any plants to which it was applied; on the contrary, it proved a good fertilizer.

M. MILLOT BRULE exhibited the article at a meeting of the French Academy of Sciences, and stated that it was a species of lignite—sulphur coal—ground fine. It is found in extensive deposits in Saxony, where, for some years past, it has been turned to account for the preservation of timber. The lignite is ground fine and dissolved in water, and the timber allowed to soak in it until it has undergone a change, which partakes of the nature of mineralization. Mere contact with the lignite appears to suffice; and it is said that beams which have been used in the workings for thirty years, are sounder and more likely to last than when first put up. In Saxony, railroad sleepers are prepared with this substance, and with manifest advantage.

These effects would indicate that it contains some empyreumatic substance, (something allied to creosote, perhaps,) gas tar, soot, &c., having, to some extent, the same action as is ascribed to this lignite.

We have looked for further information in regard to this substance and its effects, but nothing has appeared. It is nothing more than the "Bovey coal" of England, and undoubtedly exists in many places in this country. It is well worthy of trial.

SULPHUR AND LIME FOR GOOSEBERRIES.—I have raised gooseberries successfully for six or seven years. I prune out all the wood over four years old, and let one or two strong shoots stand every year; and after the crop is off, I shorten them in about one-third, and in spring salt well around the bush, under the branches, with a little sulphur and lime, worked in the soil, and mulch with coarse manure. My gooseberries are on a clay soil, dug deep, which I think essential. I have not had a dozen berries mildewed, and have raised all I want for family use. The varieties are *Crown Bob*, *Rifleman*, *Red Warrington*, &c.—A SUBSCRIBER, *Wilson, Niagara Co., N. Y.*

LIME ON APPLE TREES.—I have a fine lot of thrifty apple trees, which are bearing well. One of my neighbors has also a lot of trees which looked as thrifty as mine, until within the last three years. He applied one bushel of lime at the trunk of each of his trees, turning it in, and now the worms have eaten nearly all the bark off from them a few inches below the surface of the ground, and the trees look as if they would die. I also limed and manured my trees, but spread it all over the land, and they now bear so much the better.—J. B. H., *Newburgh, Cumberland Co., Pa.*

## BIRDS—THEIR USEFULNESS.



THE PHEBE-BIRD.

It is a noticeable fact that of late years the insect pests of the garden and orchard are increasing to an alarming extent, and the ravages they commit upon fruit trees and fruit may well nigh lead the fruit-culturist to despair of success. Plums, nectarines, and apricots, have almost disappeared, owing to the ravages of the curculio. Good cherries, even, are becoming scarce. Apples and Pears are too often worm-eaten and worthless. Grapes, though comparatively free from insects or diseases, as yet, are to the multitude as sour as they were to the fox in Æsop's fable. The insect and vermin destroyers of our field crops are also becoming more numerous every year. On the other hand, insectivorous birds, designed to keep them in check, are wantonly destroyed by man. What if the birds do occasionally pick a cherry or a strawberry? It will be generally found that they take only those containing the larvæ of some insect. Instead of destroying the birds, would it not be better to look upon them as the best friends of the farmer and gardener, and to encourage their presence among us by leaving them to enjoy the short period of life allotted to them, unharmed by the fowler's gun or the nest-robbing proclivities of recreant school-boys or lazy loafers. Well may the cultivator be content

to allow the tribute of a few of his smaller fruits to the watchful guardians of his trees and crops.

We give cuts and descriptions of a few of the more important and useful of these birds, mainly derived from an excellent article by C. N. BE-

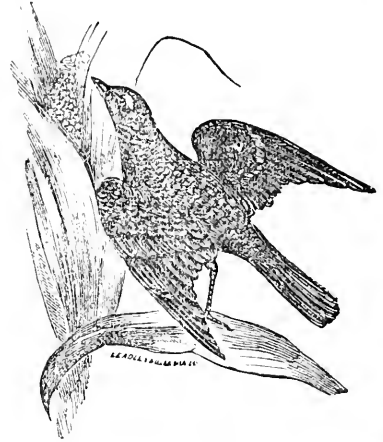


THE BARN OWL.

MENT, in the *Rural Annual* for 1858.

THE BARN OWL.—This queer-looking but useful bird affords an instance of mistaken persecution.

We often see his carcass nailed to the barn-door. Yet he destroys and feeds upon the rats, mice, and other vermin that infest the barn and the harvest fields. Farmers are apt to suppose that because the owl resorts to the barn, he destroys the egg and young of their pigeons and fowls; but he merely seeks repose and concealment during the glare of daylight.



THE BLACKBIRD.

THE BLACKBIRD is the avowed enemy of all grubs and may be seen in large flocks in a recently-plow field, industriously searching for these vermin. Not content with a superficial search on the surface, he pokes about with his bill to the depth several inches, to discover the worms.

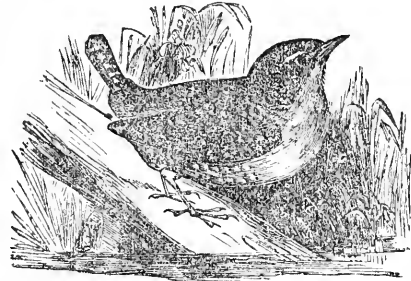
THE PHEBE BIRD is a sociable little fellow, and generally builds his nest in the porch or under the eaves. They arrive early in the spring, and the first chirp sends gladness through the house, as it is a sure sign that the severe frosts are ended, and the gardener may resume his labors with confidence. They feed on flies and various small insects.

THE WREN is another nice, sociable little bird, and destroys vast numbers of insects. An observing lover of birds counted fifty times in one hour that one pair of wrens went forth to bring food for their nestlings; and he says they never return without an insect in their bills. This perpetual going forth and returning is repeated from morning till night and continued till the young birds



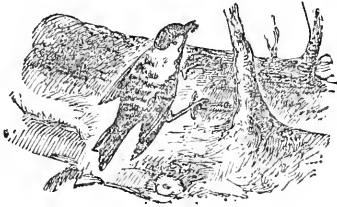
THE HOUSE WREN.

to fly forth themselves; and even if they once while nip a strawberry or a cherry, no person will grudge them it as the honest due of their vices.



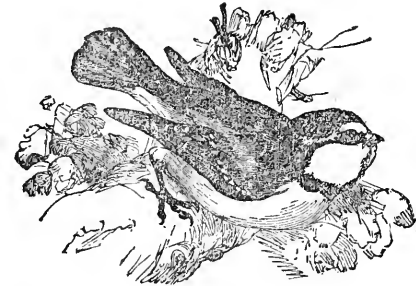
THE WREN.

THE CHICK-A-DEE is a great favorite of all—lively, noisy, and restless. Hardy, and capable of enduring the severest cold, on still winter days he may be seen hopping from tree to tree, examining every twig, branch, and crevice in the bark, for insects and their larvæ. Nothing can exceed his playfulness or his industry.



THE CHICK A DEE.

THE CREEPER is a frequent companion of the chick-a-dee, but confines his search to grubs that are concealed in the wood of the tree.



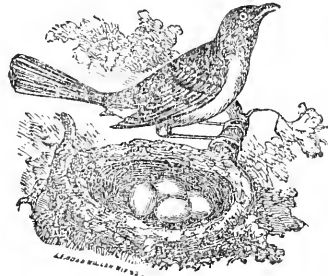
THE CREEPER.

THE CEDAR OR CHERRY BIRD is generally no favorite with the fruit-grower, from his frequent attacks upon the cherries. But in mitigation of the crime of plundering the cherries, a recent writer observes: "While watching the little rascals plundering my fruit, I noticed that they never disturbed a sound cherry, but took only those that



THE CEDAR OR CHERRY BIRD.

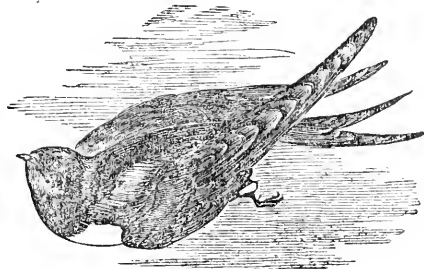
had worms in them. Since then I have not allowed them to be destroyed, and am satisfied that they never take the sound fruit."



THE CAT-BIRD.

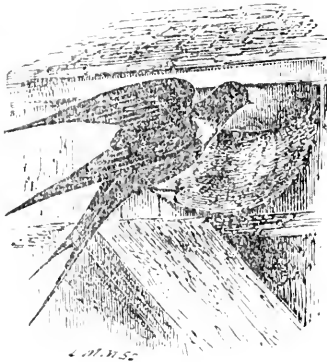
THE CAT-BIRD.—Few people in the country respect the cat-bird. He is generally an object of dislike, from his fondness for cherries and strawberries. Yet he has redeeming qualities in his fondness for insects, the music of his song, and the playfulness of his manners.

SWALLOWS and MARTINS should be encouraged to take up their abode around our dwellings; for



THE PURPLE MARTIN.

they live upon flies, wasps, beetles, and small insects, the larvæ of which are the pests of the garden.



THE BARN SWALLOW.

THE SPARROW is a most industrious insect exterminator. A single pair have been known to carry five hundred insects to their nest of young within an hour. They are very domestic, frequenting the garden, and sometimes venturing into the house after insects.



THE SPARROW.

THE KING BIRD or GREAT FLY-CATCHER feeds on all the larger flies, canker worms, beetles—in fact on all the insect tribe. His love for the honey bee is well known, but it is believed he destroys only



THE KING BIRD.

the drones. He has a habit of attacking and driving away hawks, crows, and other birds of

prey from the precincts of the farm-yard. Who then, would grudge him the few bees he takes?



THE AMERICAN ROBIN.

THE AMERICAN ROBIN.—This familiar bird, so well known for his early song and domestic habits, makes his appearance among our earliest field birds. His food consists of berries, worms, and caterpillars. He is particularly fond of the berries of the mountain ash and the fruit called poke-berries. Although he may plunder a few cherries, yet he is more serviceable, in destroying grubs and insects, than ten times the value of the fruit he eats.



THE SPOTTED WOODPECKER.

THE SPOTTED WOODPECKER feeds on the insect and larvæ found on trees. It appears to be an erroneous opinion that these birds injure trees. Their only object in pecking the wood and bark is to get at the hidden insects that they know to be



concealed within. Insects seldom bore into healthy wood; but a decayed stump or branch is always full of them, and the woodpecker sets to work and destroys them all.

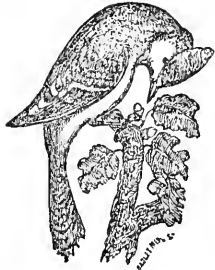


THE AMERICAN GOLDFINCH OR YELLOW-BIRD.

THE AMERICAN GOLDFINCH OR YELLOW-BIRD.—Every one knows this pretty little bird, and has noticed him perched on a thistle by the roadside, the seeds of which are his food. But for him they would in a

measure overrun the grounds of every farmer.

THE BLUE JAY.—This bird has nothing but his beautiful plumage to recommend him. He is exceedingly noisy and mischievous; and although he lives on insects, it is only when berries are not to be had. He also helps to drive away the more useful birds.



THE BLUE JAY.

In addition to these, there are other birds, too numerous to mention in this short article; but we can not help putting in a word for the BLUE-BIRD—the prettiest, most useful, and the best singer of all our native birds; and one, too, peculiar to our country. He may be seen perched on a rail, pouring out his melody, during the sultry hours of the day; while morning and night he is unceasingly employed in picking up the early worm or the drowsy beetle.

**HORTICULTURAL NOTES FOR THE MONTH.**

THIS is a good time to sow peas for a late crop; but to insure success it will be necessary that the ground be in good tilth, deep, rich and moist, to enable them to stand the hot, dry month of August. Many persons have a notion that peas should be sown on poor ground, because on rich they make more leaves and stalks than pods. I have never found that the ground could be too rich for peas, provided they have room, and good ticks to climb upon. If time can be spared when the peas have set their first pods, it will be found very beneficial to the main crop to pinch off the tops of the stalks a few inches.

SWEET OR SUGAR CORN may still be sown for a second crop. Sow in hills three feet apart, from center to center. If three seeds grow it will be enough. If a shovelful of good, rotten manure be put under each hill before sowing, it will be found very beneficial.

LIMA BEANS.—A good way of growing Lima beans is to dig a trench one foot wide and one foot

deep; then fill in six inches with good, rotten stable manure and decayed leaves; cover this over with the surface soil and mix a little. Plant the beans on the top, cover one inch. When up, thin out to six inches apart. Now drive stakes six feet apart and five feet high, and tie or nail a pole on the top of these stakes, and set thin brush along the row, like pea sticks, to enable the beans to reach the pole on top of the stakes. I think three times the quantity of beans on the same ground, and at less expense for poles, can be grown this way than in the ordinary way of hills and poles.

STRING BEANS.—In some warm, deep, rich ground, draw drills with the corner of the hoe two feet apart and two inches deep. Sow *Early Six Weeks* beans, and cover over. When up six inches, draw earth up to the stems with the hoe, and keep clear of weeds.

CUCUMBERS AND MUSK MELONS.—Dig holes two feet square and one foot deep, and six feet apart; fill them with equal parts of turfy sods and rotten manure, or mix rotten manure with the soil that came out of the hole, and fill it in again. This will raise the hill three or four inches above the surrounding soil. Sow six or eight seeds upon each hill, and press them in one inch deep. When well established, thin out to three plants in a hill. The *Early Christina* Musk Melon is the best variety, all things considered.

WATER MELONS managed this way do remarkable well; only make the hills eight or ten feet apart. Watch well the bugs, morning and evening. Catch and kill every one. This, and keeping all clear of weeds, is more readily advised than done. The easiest way is to walk quickly with a piece of thin gauze, and spread it over the plants before the bugs have time to fly away, you may then catch and kill them.

TOMATOES are better when trained to espaliers, or when branches of trees are laid beneath them to keep them from the ground. They are not so liable to rot, and will remain good later in the season.

JOSIAH SALTER.

Rochester, N. Y., June, 1859.

ALOE TO DESTROY BUGS, &c.—A correspondent of the London *Cottage Gardener* recommends bitter aloes to destroy the aphid and other insect marauders. Mix half an ounce of aloes with a gallon of warm water, and apply it to the infected plants by means of a fine syringe or watering can, and, he says, "before half an hour you will have clean plants." He syringed his rose trees and cucumber plants with it last season, and it not only cleared the plants at the time, but there was not one on all the season after; and it does not harm the foliage in the least.

It is well known that a solution of aloes is fatal to the common bed-bug; and another intense bitter—gentian—is fatal to the house fly. Aloes is a cheap drug, and we would recommend a trial of it.

MULCH your Dahlias, if you want fine, rapid, vigorous growth, and full abundant bloom. Much the best substance for the purpose is the soft, spongy meadow moss, but leaves and coarse meadow hay will do.

## THE APPLE TREE BORER.

A WRITER in the *Genesee Farmer* gives an opinion that the apple-tree borer "will never attack a perfectly healthy tree," remarking that "there is a vast difference between a *thrifty* tree and a *healthy* one." A *healthy* tree he regards as one that has received nothing but *vegetable* manure (good soil), whereas, a *thrifty* tree may have received animal manure. He remarks that the borer would not molest a tree which had been grown wholly by the aid of vegetable manures. To illustrate his theory, he refers to one of his orchards, which was set out on unbroken pasture land, and received but one plowing and no manure. These trees were never attacked by borers, while in other orchards, which had been repeatedly plowed and fertilized with animal manure, (that is, yard manure, or the droppings of animals,) they commit their yearly depredations.

The facts here stated clearly illustrate what we have repeatedly published; and as the writer does not attempt to explain the cause, he is evidently laboring under a misapprehension. The facts are simply these: Trees planted and manured with stimulating (animal) manure, are forced into a rapid, *immature* growth, leaving the stem and young branches filled with sap. This sap is severely frozen during the cold days of winter, and when it becomes suddenly thawed, as it frequently will, on the sunny side, in the middle of the day, the sap becomes vitiated and diseased, producing similar results upon that side of the tree next the sun, to those which take place in a potato or other vegetable when frozen and suddenly thawed. This diseased condition is just what the borer seeks. The trees planted in ordinary good soil make a more *slow healthy*, matured growth, and are not liable to the same injury by frost, and hence not exposed to disease, and of course, uninviting to the insect.

Newly planted trees should be kept in a healthy, growing condition; and, by *timely cultivation*, their growth may be entirely under the control of the cultivator. The most critical period with a young orchard of apple trees in this respect is from *three to six* years from the time of planting. As an additional safeguard, we have frequently recommended training the trees with low heads—and to do this the work of training must begin while the trees are young. Cut them back well, and force out a growth of branches near the ground, let the height be governed by the habit of growth of the particular variety. The branches shade the body of the tree, and prevent the fatal consequences of the sudden changes through the influences of cold and heat. Nor are these all the advantages resulting from low-trained trees. They are much less liable to assume a leaning position through the influence of the prevailing winds. The fruit is more easily gathered and less liable to injury in falling from the trees. Low headed trees, it is true, require a little more care in cultivation to guard against bruising them, but this is but a small matter when the work is done with implements of proper construction.—*Valley Farmer*.

REARMR has calculated that in five generations one aphid may be the progenitor of 5,904,900,000 descendants; and there are ten generations in nine months.

## Ladies' Department.

## ORIGINAL DOMESTIC RECEIPTS.

[Written for the *Genesee Farmer* by various Correspondents.]

**WALNUT PUFFS.**—Two tablespoonfuls of flour, two ounces melted butter, two ounces sugar, two ounces hickory nuts beaten fine. Bake in cups well buttered.

**COLD CUSTARD.**—One quart of new milk, one half pint of cream, four ounces white sugar, a glass of water in which an inch of washed rennet has been soaked, and nutmeg.

**BISCUIT.**—One quart of buttermilk, two spoonfuls of cream, two tea-spoonfuls of soda, one tea-spoonful of salt. Use flour enough to form a stiff dough, kneading it well.

**RICE CUSTARD.**—Boil three table-spoonfuls of rice flour in a pint of milk. When cold, add three eggs, two ounces of butter, and a tea-spoonful essence of vanilla. Sweeten to taste.

**BUTTERMILK PIE.**—Three pints of buttermilk, two eggs, four table-spoonfuls of sugar, a tea-spoonful of flour stirred into the milk, and half a nutmeg. Stir well together, and bake like custard pie.

**SPONGE CAKE.**—Sift one pound of flour, one pound of loaf sugar, beat ten eggs very light, mix the ingredients well, then add the juice of one lemon. If baked in one cake, two hours is necessary. No saleratus, soda, or tartar is needed.

**A NICE TEA CAKE.**—Beat the whites of four eggs to a light froth, beat the yolks of the same with a cup and a half of sugar, one cup of sour cream, half a cup of butter; flavor with lemon. Add a little soda; flour to make a stiff batter.

**BREAD PUDDING.**—Fill a four quart pan half full of light bread, crumbled fine; add milk so as to nearly fill the pan; let it soak two hours; then add two thirds of a cup of sugar, two eggs, two spoonfuls of sweet cream, a tea-spoonful of salt, half a nutmeg. Bake three-fourths of an hour.

**TOMATO MARMALADE.**—Take full grown tomatoes while quite green, cut out the stems, stew them till quite soft, rub them through a sieve, set the pulp on the fire; season highly with salt pepper, pounded cloves, and stew all together till thick. It is excellent for seasoning gravies, and keeps well.

**TO MAKE RED CURRANT JELLY.**—Put your currants in a jar in the oven, and let them remain till the juice is all out of them. To a pint of syrup add a pint of white sugar, pounded, and made quite hot. Before the sugar is added, boil the syrup very slowly for two minutes; then add the sugar, and boil it ten minutes.

**TO CLEAN GREEN CURRANTS.**—An expeditious way of cleaning green currants from stems and grit, is to rub them well and hard in a handkerchief or more of flour, then rub them in a sieve, wash them well in several waters, spread on papers to dry, stir frequently if drying in an oven; but they are better dried on folded cloth in the sun.



### New Advertisements this Month.

Wood's Mower—Walter A. Wood, Hoosick Falls, N. Y.  
 Tents and Flags—James Field, Rochester, N. Y.  
 The Practical Horse Farrier—E. Nash, Auburn, N. Y.  
 Fish Guano—A. Longett, New York.  
 Share's Patent Cultivating, Hoeing, and Hilling Machines—Pease & Eggleston, Albany, N. Y.  
 Agricultural and Horticultural Books—E. Darrow & Brother, Rochester, N. Y.  
 Colored Pictures of Fruit, Flowers, and Shrubby—E. Darrow & Brother, Rochester, N. Y.  
 Seymour & Morgan's New York Self-Raking Reaper and Mower—Seymour, Morgan, & Allen, Brockport, N. Y.  
 N. Y. State Ag. Society, Premiums on Farms—B. P. Johnson, Sec'y, Albany, N. Y.  
 Manny's Combined Mower and Reaper—W. A. Wood, Hoosick Falls, N. Y.  
 Plain and Pleasant Talk about Fruits, Flowers, and Farming—Derby & Jackson, New York.  
 Ingersoll's Improved Portable Hay Press—Farmer's Manufacturing Company, Green Point, N. Y.

**THE WEATHER.**—April 16 to May 16, 1859.—The average heat of the last half of April was 42.13°, being 5° below the average of the same for 22 years; and as the heat of the first half of the month had been the average of the same for 22 years, the mean of April was below the general average of the month about 3°. The effect was to delay vegetation so that, when April closed, much of vegetation was not so far advanced as in April, 1858, only grass and wheat and some trees being the exception. The beautiful shrub Forsythia held back its fine yellow blossoms without leaves a week later than in April of last year.

The rain of the 22d, and the violent storm of snow and wind, which extended over the country, gave us 1.74 in. of water. It reminded us of the like fall of rain and snow two years ago, and two days earlier, when the Suspension Bridge below our lower falls, was crushed and lost. An unusual quantity of rain fell in the month—even 4.11 inches here. As the rain has been great over the western country, Lake Ontario has risen, and was very high at the close of April. The season has been pleasant, roads fine, and much work performed on the farm.

The month of May opened with fine weather, and warm, and the temperature of the first half was a little higher than before in many years. The average of the half, to May 16th, was 59.71°, or nearly 7° above the mean of 22 years. In 1841, the first half was only 43.8°, or near 12° below the mean. The consequence was very rapid progress in vegetation. Cherries were already in blossom a week before April ended, but soon apples, and pears, and quinces, and plums, were richly loaded with blossoms. The trees will be broken down by the fruit, if only one blossom in three to five shall prove to be fertile. In these fifteen days the fields are covered with the flowers of the season. The peach has shown but few blossoms, but other fruits may be expected in abundance. The fields of wheat look well, and the prospect is good over the country.

**A CHANCE TO INTRODUCE THE GENESEE FARMER.**—As announced last month, we have concluded to take subscriptions to the coming *half-volume*, commencing with the next number. This will afford our friends an excellent opportunity of introducing the *Farmer* into sections where we have now few subscribers.

We have no paid agents. It is a labor of love with those who form clubs for the *Genesee Farmer*; and we respectfully invite all our friends who wish to extend the usefulness and circulation of the *Farmer*, to show a copy of the paper to their neighbors, and invite them to give it a trial for the coming half-year. They cannot have a cheaper paper. We will send the coming half volume to any address for 25 cents.

We will send *five copies* for one dollar, and present the person getting up the club a copy of our beautiful 25 cent book, the *Rural Annual and Horticultural Directory*, sent prepaid, by mail.

The club need not all be at one post-office. We will send the papers to as many different post-offices as is desired.

The terms for larger clubs will be found on the last page; also a liberal list of Cash Premiums for the greatest number of subscribers for the coming half volume.

We would urge every reader of the *Genesee Farmer*, who thinks it deserves encouragement, to speak to his friends and see what he can do to increase its circulation.

**NINETY DOLLARS IN CASH PREMIUMS.**—On the last page will be found a list of Cash Premiums for the greatest number of subscribers for the coming half-volume of the *Genesee Farmer*, commencing with the next number. We hope it will attract the attention of our friends. Thanks to their voluntary effort, our prospects never were so good as at present, and we desire to repay them as far as possible for their disinterested and successful labors in our behalf. We have never before offered such premiums. A little canvassing will enable any one to secure the largest of these Cash Premiums, and the smaller ones will undoubtedly be taken by *very small* clubs.

Will not those of our friends who reside in districts where we have few subscribers, make an effort to increase our circulation? Such, especially, can very easily get up a club sufficient to secure a premium. We will cheerfully send extra copies as specimens, showbills, &c., to all disposed to act as agents. *Let us hear from you immediately.*

**REMARKABLE COLT.**—Mr. Z. WILLIAMS, of this city, has a colt, now eleven months old, which stands 15 hands high and weighs 1,000 pounds. His symmetry and proportions are perfect; and for size, his equal is not to be found anywhere. He was brought from Darlington, C. W., by Mr. IRA B. BURKE, and comes of good stock, his sire being the imported horse "Cumberland," and his dam by the celebrated "Old Clyde." He will doubtless prove a great acquisition to the breeding stock of this country, and will be exhibited at the N. Y. State Fair, and at the various County Fairs during this season.

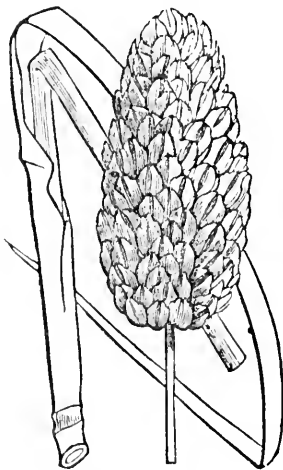
**A COMPLIMENT TO OUR CORRESPONDENTS.**—MASTON S. GREGG, Esq., of Washington county, Arkansas, writes us:

"I believe your correspondents, with your assistance, will make the *Genesee Farmer* the best paper in the world for farmers. I have compared it with papers costing double the price, and prefer it to any other paper I have seen."

## Inquiries and Answers.

**PRESERVING THE COLOR OF FRUITS.**—I have not long been a subscriber for your paper, but I am highly pleased with it. It is filled with valuable information and suggestions. I am engaged in the nursery business and fruit culture, and am in want of information which you or correspondents possibly can give me. Is there any mode of preserving fruits (apples, pears, peaches, cherries, plums, etc.,) sound and in their natural color and condition? I have thought perhaps putting them in alcohol would do; or that if the air could be exhausted from glass jars and the jars sealed, they might be preserved whole for one season. I shall be much obliged for any information on the subject.—B. F. TRAXSON, *Wellwood, Tenn.*

Alcohol dissolves the coloring matter of fruits—at least, such is the case with strawberries. MULDER, the celebrated German chemist, sent apples to India in jars from which the air had been exhausted. The apples retained their natural color, but lost their flavor. We know of no way of preserving perishable fruit without cooking it sufficiently to coagulate the albumen. This, of course, destroys the color. Some other method of coagulating the albumen might be discovered, which would not destroy the color; and then fruit might be preserved in exhausted vessels and retain their color, flavor, &c. If any of our readers know of such a method, we should be glad to hear from them.



CANARY GRASS.

**CANARY SEED.**—(M. G. S.) A strong clay land is most suitable for Canary seed. The land should be plowed in the fall and again in the spring, and well scarified and harrowed, to reduce it to a good tilth. Early in May, drill in the seed to the depth of two inches. The drills should be about ten inches apart. Two pecks is sufficient for an acre. The after cultivation consists of keeping down weeds by hand-hoeing.

**HAY UNLOADING APPARATUS.**—(R. M.) The best apparatus for unloading hay we are acquainted with is manufactured by C. E. GLADDING, of Troy, Bradford Co., Penn. For price and further information, see advertisement in the last number, or send to Mr. G. for a circular.

**PERUVIAN GUANO.**—(W. A. MUSSON, *Cobourg, C. W.*) You can get genuine peruvian guano from A. LONGERT, 84 Cliff street, N. Y. We have for several years obtained a good article of him.

**"HOW LONG WILL THE GRAPE VINE LIVE?"**—(T. A. B.) So long that we can not answer your question. It will live as long as the Oak. PLINY speaks of a vine which had existed 600 years. There are vineyards in Italy which have been in a flourishing state for upwards of 300 years; and MILLER states that a vineyard 100 years old is considered young. There is a vine at Hampton Court, near London, of the *Red Hamburgh* variety, supposed to be 375 years old. It occupies about 120 square yards. One branch measures 114 feet in length. It has produced in a single season, 2,200 bunches, averaging one pound each. A vine at Northalleraton, (lately dead,) about the same age, was even still larger. The stem near the ground, in 1765, measured 4 feet in circumference.

**POSTAGE ON THE GENESSEE FARMER.**—(N. G. T.)—Your postmaster is in error in charging you 13 cents a year postage on the *Genessee Farmer*. The legal rates of postage on the *Farmer* are three cents a year in this State, and six cents a year in any other State, paid quarterly in advance.

**HOESE-HOE.**—(JOHN TURNER.) You will find the Hyde & Wright's Patent Hoese-Hoe just the implement you desire. We know of no better hoese-hoe for cultivating corn, potatoes, &c. It is manufactured by A. GORDON, of this city. For price, &c., see the advertisement of A. G., in this number.

**HOUSE FOR DRYING FRUIT.**—I have been a constant reader of the *Farmer* for several years, and will say that, in my opinion, I have never invested money in any stock half as profitable as the subscription price of the *Genessee Farmer*.

I would like to have your own or some of your correspondents' opinions in regard to a house for drying fruit. My means being light, I would like to make every dollar count as much as possible. I have an idea of constructing a frame house so as to answer two purposes—namely, a wash-house and a house to dry fruit in. It would be required but a small part of the year for the drying of fruit. My plan would be to make the house tight by boarding the outside with matched plank, or ceiling inside; build a furnace inside the house to hold two or three large wash-kettles, so arranged that the kettles may be taken out, and the openings closed, when you wish to use the building for drying fruit. I have thought that riddles or frames made of wire, similar to the coarse riddle of a wheat fan, suspended from the ceiling, one over the other, like bunks on the decks of a Western steamboat, would answer the purpose well; and when you had done drying, you could put the frames away in a very small space.

We have considerable fruit, and dry a good deal, in this part of the State; but it is attended with considerable trouble and uncertainty; for it is mostly done on scaffolds in the sun, giving our better halves and ourselves a great deal of trouble in rainy weather.

Now if you or some of your accommodating correspondents will tell us, through the *Farmer*, whether this plan will answer, or give us a better one, they will confer a favor on many.—GEORGE W. MASSEY, *Pike Co., Ind.*

**MILK SICKNESS.**—I would like to hear from your correspondents in regard to the cause and cure of milk sickness. Is the poison contained in water or vegetables, or in the atmosphere? We have abundance of it here every fall, but cannot tell what it is.—G. W. R., *Clinton Co., N. Y.*

**CRAMPS IN YOUNG MULES.**—I wish to inquire of your numerous readers if there is any remedy for cramps in young mules. I have now several young mules, and one or more is afflicted with this disease.—A READER.

**COULTERS ON PLOWS.**—I wish to enquire from some of your mathematical friends, the proper angle that a coulter should have with the beam of a plow.—H. R., *Newburgh, New York.*

**GRINDING BONES.**—Will a mill made to grind plaster do 5 grind bones? Do bones need any preparation to make them fit to grind? and what is the best mode for using s manure, after being ground? What are they worth to urchase and grind for manure? The machine for crack- ing the plaster, before grinding, I suppose would do to rack bones; and that the same stones would do for both, ut I do not know. I will be glad if some of your corres- pondents can furnish correct and practical information ith regard to this, and of the entire method of making one dust.—H. B. INGHAM, *Camp Town, Penn.*

### Notices of Books, Pamphlets, &c.

**DWIGHT'S JOURNAL OF MUSIC** has just commenced Beethoven's best Choruses." Subscribers get the Music ith the Journal every week for \$2 per annum. Published 7 DITSBUR & Co., Boston.

**STATISTICAL VIEW OF AMERICAN AGRICULTURE,** its Home Resources and Foreign Markets, with suggestions for the Schedule of the Federal Census in 1860. An Address delivered before the American Geographical and Statistical Society, on the organization of the Agricultural Section. By JOHN JAY, Esq. New York: D. APPLETON & Co. 1859.

**THE NEW AMERICAN CYCLOPEDIA:** A popular Dictionary of popular Knowledge. Edited by GEORGE RIPLEY and CHARLES A. DANA. Vol. 5. Chartreuse—Cougar. New York: D. APPLETON & Co. 1859. D. M. DEWEY sole agent for Rochester and vicinity. Price \$3 per volume.

**IEVALIER ON GOLD.** On the probable fall in the Value of Gold, the Commercial and Social Consequences which may ensue, and the Measures which it invites. By M. CHEVALIER. Translated from the French by RICHARD COBDEN, Esq. New York: APPLETON & Co. Price \$1.

**IE LIFE OF JAMES WATT;** with selections from his Correspondence. By JAMES PATRICK MUIRHEAD, M. A., author of "The Origin and Progress of the Mechanical Inventions of Watt," &c. Illustrated with wood cuts. New York: D. APPLETON & Co. Price \$1.25.

**IE LIFE OF NORTH AMERICAN INSECTS.** By Prof. B. JACGER, assisted by H. C. PRESTON, M. D. With numerous Illustrations from specimens in the cabinet of the Author. New York: HARPER & BROS. Price \$1.25.

**OTHERS AND INFANTS.** A Treatise on Nursing, Weaning, and the General Treatment of Young Children. Translated from the French by Dr. A. DONNE. Boston: SAMPSON & Co. Price \$1.

**XTY YEARS' GLEANINGS FROM LIVES HARVEST.** A Genuine Autobiography. By JOHN BROWN, Proprietor of the University Billiard Rooms. New York: D. APPLETON & Co. 1859. Price \$1.25.

**OME MEMORIES;** or Echoes of a Mother's Voice. By Mrs. CARY BROOK, author of "Children at Home," "Working and Waiting." New York: D. APPLETON & Co. Price \$1.

**IE LIFE OF GEN. H. HAVELOCK, K. C. B.** By J. T. HEADLEY, author of "Napoleon and his Marshalls," &c. With illustrations. New York: CHARLES SCRIBNER. Price \$1.25

**OVE ME LITTLE, LOVE ME LONG.** By CHAS. READE author of "It is never too late to mend," &c. New York HARPER & BROS. Price 75 cents.

**APOLEONIC IDEAS.** By the Prince NAPOLEON LOUIS BONA- PARTE. Translated by JAMES A. DORR. New York: APPLETON & Co. Price 75 cents.

**IAKESPEARE'S LEGAL ACQUIREMENTS.** By JOHN LOED CAMPBELL, L. L. D., F. R. S. E. New York: D. APPLETON & Co. Price 75 cents.

**ORE ABOUT JESUS.** With Illustrations and Map. By the "Author of Peep of Day," &c. New York: HARPER & BROS. Price 50 cents.

**ORDER WAR.** A Tale of Disunion. By J. B. JONES, author of "Wild Western Scenes. New York: RUDD & CARLETON. Price \$1.25.

**IE ROMANCE AND ITS HERO.** A Novel. By the author of "Magdalen Stafford." New York: HARPER & BRO'S. Price \$1.

**EN SYLVESTER'S WARD.** By the author of "The Heir of Redcliffe." New York: APPLETON & Co. Price 37½ cents.

**IE LAWS AND PRACTICE OF WHIST.** By CELEBS. New York: D. APPLETON & Co. 1859. Price 75 cts.

**HINTS TO HORSE KEEPERS.** A Complete Manual for Horsemen, embracing How to Breed, Buy, Break, Use, Feed; How to Physic a Horse, (Allopathy and Homoeopathy); How to Groom, Drive and Ride a Horse, and Chapters on Mules and Ponies. By the late HENRY WILLIAM HERBERT. Beautifully Illustrated. New York: A. O. MOORE & Co. Price \$1.25.

All the above books are for sale by D. M. DEWEY, of this city, or they can be obtained from the respective publishers, sent, prepaid by mail, for the price annexed.

## REVIEW OF THE MARKETS.

GENESEE FARMER OFFICE,  
ROCHESTER, N. Y., MAY 21, 1859. }

The markets have been in a very excited state during the last two weeks. Stimulated by the warlike news from Europe, speculators have been eager purchasers. It is said by some that the bulk of the purchases have been made for actual consumption, and that the stock is much reduced thereby, notwithstanding the arrivals have been fair for the season. If the purchases have been made for consumption, it is reasonable to suppose that the bulk of them are still on hand, as the quantity changing hands from day to day has been largely in excess of the immediate consumptive demand, and nothing has transpired to increase the actual consumption. The bulk of the transactions are therefore of a speculative character.

**FLOUR AND GRAIN.**—In this department the activity has been the greatest. The operations in Flour have not been marked with discretion. A wild excitement has been manifest. The price advancing twenty-five to fifty cents per bbl. in a day or two, and then receding fifteen to thirty cents in a corresponding period of time; again advancing, and again receding; but still gaining so much as to make a difference of one to two dollars per bbl, taken at the highest point, compared with last month's report. The transactions in Wheat have been of the same excited character, the advance during the month being thirty to forty-five cents per bushel. It is next to impossible to give reliable quotations. Our remarks have special reference to New York as the leading market, and to other markets as relatively affected by that. Rye has undergone a material improvement, and is in good demand. Corn, Oats, and Barley are higher, but somewhat dull. The prospect of the growing crops is uniformly spoken of as favorable.

**PROVISIONS.**—There has been great activity and irregularity in the Provision Markets. The great probability of war has induced an unusual demand, and a belief in higher rates for the future; real confidence does not exist; this is evidenced by the fluctuations from day to day. The advance on Pork and Beef has been large—from two to four dollars per bbl.—but it is soon, to a great extent, lost. Lard also improved with an increased demand, but again receded, and closes about the same as last quoted.

**WOOL.**—The demand is light, the stock small, and prices without material change.

### NEW YORK MARKET.—May 20.

**FLOUR AND MEAT.**—The Market for Flour is in a very unsettled state, with a declining tendency; a congestion of 25 to 50 cents per bbl. is not sufficient to induce buyers to operate. Superfine State, \$5 50@ \$6.50; fancy and extra do, \$6.50@ \$7.25; common to good Western, \$5.75@ \$6.60; extra do, \$6.75@ \$8.30; shipping brands of Ohio round-hoop, \$7.25@ \$7.40; extra Genesee and St. Louis, \$8@ \$9. Southern Flour dull; Brandywine, \$8@ \$8.25; Georgetown, \$7.75@ \$9; Petersburg city, \$8.50@ \$9.50; Richmond city, \$8.25@ \$9.50; Gallego and Itaxall, \$9.75. Canadian Flour, \$7.25@ \$8.50 for the range of extras. Rye flour dull at \$4.50@ \$5.50 for fine and superfine. Corn meal dull; Jersey, \$4.20@ \$4.30; Brandywine, \$4.02½; puncheons, \$21.

**GRAIN.**—Wheat dull and declining; Chicago spring, \$1.15@ \$1.18; red Western, \$1.15@ \$1.55; mixed do, \$1.55@ \$1.70; Milwaukee club, \$1.25@ \$1.28; white Michigan and Kentucky, \$2@ \$2.10. Barley heavy and demand light at 72¢@ 75¢ for State, and 70¢ for California. Oats lower; 57¢@ 58¢ for State; 58¢@ 60¢ for Canadian and Western. Rye dull at \$1@ \$1.02. Corn dull and lower; New Orleans mixed, 92¢; Jersey and Southern yellow, 98¢; Southern white, 95; Western mixed, 94¢.

SEEDS—Clover, 8c@8½c per lb. Timothy, \$2.18½@2.62½ per bushel.

PROVISIONS—The demand for Pork is less active and market lower; new mess, \$17.50@18; prime mess, \$19; prime, \$15.50. Beef in good demand; country prime, \$15.50@17.50; country mess, \$8.50@9.50; ro-packed mess, \$11@11.50; extra do, \$15.25@17; prime mess firm; sales of good Ohio at \$30 per tierce. Beef lambs firm at \$16. Cut meats in fair demand; Shoulders, 7½c@7½c; Hams, 9c@9½c. Lard dull at 11½c@12c. Butter in fair demand at 8c@12c for Ohio, and 10c@20c for State. Cheese steady at 8c@10½c.

BEEF CATTLE—First quality, 11c@12c; medium, 10c@10½c; ordinary, 9c@10c. Sales range mostly from 10c to 11½c. Calves 6½c@7½c live weight.

SHEEP—\$1@17 per head. Lambs, \$3.50@5.50 per head. HOGS—Arrivals heavy for the season. Sales 6½c@6½c, according to quality.

WHEAT—The demand is fair and fully equal to the supply. Choice, 60c@60c; No. 1 city and extra country pulled, 52c@50c; foreign, 42c@35c for the range.

May 21—Market for Flour more active, with an advance of 15c to 25c per bbl. on yesterday's rates. Wheat buoyant, and 1c @2c better.

### ROCHESTER MARKET.—May 21.

FLOUR—Market unsettled, with but few transactions. Common to good brands from Western red wheat \$5.50@5.75; extra from white wheat, \$5@5.50.

GRAIN—Wheat scarce. Good white is worth \$1.8@2; Mediterranean, \$1.70; Milwaukee club, \$1.50. Corn, 9c@9.5c. Barley, 6c@7c. Oats, 5c@5.5c. Rye scarce at 85c@9c. Beans, 9c@9.5c.

SEEDS—Clover, \$4.50@4.75. Timothy, \$2@2.25. Flax, \$1.50. PROVISIONS—Mess Pork, \$17.00@18.00. Lard, 12c. Hams, 9c@9c. Shoulders, 7c@8c. Butter, 15c@16c. Cheese, 10c@12c. Eggs, 11c@12c. Potatoes, 55c@75c. Beef at retail, 7c@12c; Mutton, 8c@10c; Pork, 10c per lb.; Lamb, 62½c@7c per quar. Dressed hogs, 7½c. Dressed sheep, 6c@7c per lb.

BEEF CATTLE—Live weight, 5½c@6c per lb. Lambs, \$2@2.50 each. Calves, \$3@5 per head, according to quality.

HAY—\$8@14 per ton.

WOOL—45c@55c per lb.

### PHILADELPHIA MARKET.—May 19.

FLOUR AND MEAL—Market dull. Accurate quotations can not be given. Sales range from \$7.50 to \$8.75 for common and fancy brands. Rye flour dull at \$5. Corn meal steady; \$4.12½ for Pennsylvania; Brandywine, \$4.50.

GRAIN—Wheat lower and dull; white, \$1.00@1.02; red, \$1.85@1.90. Rye lower; sales at \$1. Corn dull at 30c@32c for yellow. Oats steady at 5½c@5.5c for Southern; 5c@6c for Penn.

PROVISIONS—Mess Pork held at \$18.50. Mess Beef, \$15@15.50. Bacon—sides, 9½c@10c. Hams, 10c@12c. Shoulders, 8c. Hams in salt, 9c@9½c; sides, 9c; shoulders, 6½c@7½c. Lard—stock low; sales at 12c@12c. Butter in good supply at 13c@15c for roll; packed, 9½c@10c. Cheese, 10½c. Eggs, 16c.

SEEDS—Clover, \$4.50@4.75; Timothy, \$2@2.25; Flax, \$1.65.

CATTLE MARKET—Beef Cattle—Market firm; prices range from \$10@12.50 for common to good and extra quality. Cows and Calves, \$3@4, according to quality. Hogs, \$7.50@8.75 per 100 lbs. net. Sheep, 6c@6½c for clipped, 7c@7½c for unclipped, per lb. gross.

WOOL—Market quiet. Sales of full-blood at 55c; half-blood, at 50c, cash.

### CHICAGO MARKET.—May 18.

FLOUR—Sales superior spring at \$5.57½; choice white winter at \$8.

GRAIN—Wheat declined about 15c per bushel since yesterday. Sales No. 1 red winter, \$1.50@1.60; standard spring, \$1.12@1.14. Corn—sales at 80c in store. Barley—No. 1, 8½c@9c; No. 2, 6c@6½c. Rye scarce and inactive at \$1@1.12½. Oats quiet at 54c on track, and 57c for No. 1 in store. Beans—common to choice, 7c@12.5c.

SEEDS—Hungarian grass, \$2.12½.

PROVISIONS—Pork firm at \$19 for mess, \$13.50 for rumps. Butter—prime dairy, 12c@16c; common, 10c@12c. Potatoes—Methuena, 7c@7.5c; Pink-eye, 7c; common, 55c@60c.

WOOL—Market inactive. Merino and Saxony fleece, 40@50c; extra, 50c; super, 85c; No. 1, 85c.

### CINCINNATI MARKET.—May 19.

FLOUR—Market dull. Superfine, \$7.25; extra, \$7.50; closing unsettled.

GRAIN—Wheat dull and irregular; white, \$1.65@1.85; red, \$1.65@1.70. Corn firm at 82c@91c for mixed. Rye steady at \$1.03@1.05. Barley dull at 65c@62c. Oats, 62c@65c; market dull.

SEEDS—Clover, \$4.50@4.75. Timothy, \$2@2.25. Flax, \$1.80.

PROVISIONS—Mess Pork \$18.50. Bacon—sides, 9½c@10c. Shoulders, 6½c@7c. Lard, 11½c@12c. Butter—market steady; choice yellow W. E., 18c@19c; prime Ohio, 14c@17c.

BEEF CATTLE—Common, \$4@4.50; prime, \$4.75@5.75; choice, 7½.

HAY—Market firm. Prime Timothy, \$19@20 per ton.

WOOL—Market irregular. Sales of now clip at 85c@45c.

### BUFFALO MARKET.—May 21.

FLOUR—Dull and declining. Common from Chicago spring wheat, \$9; Milwaukee club, \$6.50@6.75; winter red wheat, \$7.25; choice extras, \$7.50@8.

GRAIN—Wheat dull and lower; winter red, \$1.50; and \$1.80. Corn lower; 8c offered. Barley, 65c@70c. Oats, 56c@57c for Western. Rye—no transactions.

SEEDS—Clover, \$4.80@5. Timothy, \$2.37½@2.50.

PROVISIONS—Market quiet and but little doing. Mess Pork \$18.75 for heavy, and \$17.50@18 for light; prime, \$12.50@13; hams, 10c; sugar-cured, 11c. Shoulders, 7½c. Lard, 12½c.

### TORONTO MARKET.—May 18.

FLOUR—With a light stock, transactions are limited. Superfine, \$7.25@7.50; fancy, \$7.82½@8.15; extra, \$8.00@8.25.

GRAIN—Supply of wheat limited; demand good; prime \$1@2; good, \$1.50@1.80; inferior, \$1.20@1.50; spring wheat \$1.50@1.60. Barley more active with a limited supply at 70c@75c. Rye quiet at 75c@80c. Oats firm at 55c@60c. Peas scarce and inquired for; good varieties, 95c@1.10; ordinary, 85c@90c.

PROVISIONS—Mess Pork, \$19@20; prime mess, \$14@15; prime, \$13@14. Bacon—sides, 8½c@9c. Hams, 10c@11½. Butter, 12c@30c for fresh; tub No. 1 quality, 17c@20c; No. 2, 12½c@15c per lb. Cheese—American prime, 12c; good do, 10c for skum milk Cheese, 6c per lb. Eggs plentiful at 9c@10c per dozen. Potatoes steady 6c@7c; retail, 7c@7.5c per bushel.

HAY—In good supply at \$12@20 per ton. Straw, \$8@10.

CATTLE MARKET—Prime Cattle scarce at \$8; medium, inferior, \$6@6.25 per 100 lbs. live weight, allowing one-third shrinkage. Sheep, \$4@11.50 for clipped and \$5.50@6 for clipped. Lambs \$2 each. Calves, \$4@7.

WOOL—With signs of activity, and a large clip expected, quotations range from 20c@25c per lb.

### LONDON MARKET.—May 9.

FLOUR—American sour, \$5.76@5.76; sweet, \$5.76@5.76. GRAIN—American white wheat, \$1.50@1.71; do red, \$1@1.65. Indian corn—white, 36c@39c; yellow, 36c@41.02, 6d per bushel.

SEEDS—Red clover, 11c@14c; white do, 10c@22c. Linse \$1.60@1.74 for crushing, and \$1.92 for sowing.

WOOL—With an increased stock prices are drooping. St at 25c@48c for the range.

### LIVERPOOL MARKET.—May 6.

FLOUR AND MEAL—Western canal Flour, \$5.65@5.65. Baltimore, Philadelphia, and Ohio, \$5.58@5.67; sour, \$5.1@5.45. Corn Meal, \$4@4.25.

GRAIN—American white wheat, \$1.65@1.92; red do, \$1.4@1.70 per bush. of 60 lbs. Indian corn—yellow, \$1.42c@1.60 white, \$1.16; mixed, 95c@1.02; per bush. of 60 lbs.

SEEDS—American red clover, new, 11c@13c per lb.

WOOL—For the range of domestic qualities, 12c@40c per No sales of foreign.

### BRIGHTON CATTLE MARKET.—May 19.

At market, 850 Cows, 90 Stores, 1100 Sheep and Lambs, 2 Swine.

PRICES—Market Beef—Extra, \$9.50@9.75; First qual \$8.50; Second, \$7.00; Third, \$6.00. Miltch Cows—\$39 @ \$40 Common, \$19@20; Veal Calves—\$4@7. Yearlings—No Two Years old—\$24@23. Three Years old—\$30@33. He 7½c@7½c per lb. Calf Skins—18c@14c per lb. Tallow—17½c. Sheep and Lambs—\$1.75@2.00; extra, \$3.60@3.60 per \$—\$1.50@1.87. Swine—Stores, wholesale, 6c@6½c; Sows, 10c, 7c@9c; Barrows, 7c@7½c.

Bees are sold here by the head, at prices per lb. equal to estimated weight of beef in the quarter, together with the 1 quarter, or the hide and tallow, at the same price, at a shrink from live weight agreed on by the parties—from 25 to 34 per c.

### ADVERTISEMENTS.

A few short advertisements of interest to farmers—and to such—will be inserted in the *Genesee Farmer* for twenty cent a line, or \$2 per square, each insertion, payable in advance.

secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in every State and Territory, and in all the British Provinces. (It has no 3000 subscribers in Canada West alone.) There is no better cheaper medium for advertising everything of general interest rural residents in all parts of the United States and Canada.

FISH GUANO—In quantities to suit purchasers, at \$25 per of 2000 lbs. J. C. LONGETT, 84 Cliff St., New York.

COLORED PICTURES OF FRUIT, FLOWERS & SHRUBBERY—Drawn from nature, and colored with oil for the use of Nurserymen and Tree Agents. Sent for a catalogue.

E. DARROW & BROTHERS, Agricultural Bookellers, Rochester, N. Y.

June, 1859—21

**S. TENT AND FLAG MANUFACTORY.**

No. 13 Buffalo Street, Rochester, N. Y.

TENTS to rent of the following sizes, suitable for the purposes designated:

for *Agricultural Fairs, Conferences, Political or other large Gatherings.*

- 80 ft. by 110 ft. .... 80 ft. diameter.
- 60 ft. by 90 ft. .... 70 ft. "
- 50 ft. by 80 ft. .... 60 ft. "
- 15 ft. by 20 ft. fancy ..... 50 ft. "

or *Camp Meetings, Military Encampments, Pic Nics, Fishing Excursions, &c.*

- 24 ft. by 30 ft. .... 12 ft. by 17 ft.
- 16 ft. by 24 ft. .... 9 ft. by 12 ft.

Flags furnished with Tents, when required.  
Parties wishing to rent, will please address the proprietor, stating what the Tents are to be used for. Also the facilities for transportation. Address **JAMES FIELD, Box 701, June, 1859—41\*** Rochester, N. Y.

**NEW YORK STATE AGRICULTURAL SOCIETY**  
Premiums on Farms, 1859.

PREMIUMS are offered for best cultivated farm, mostly devoted to *grain growing*; best grazing and *cheese-dairy farm*; also do, *butter-dairy farm*, not less than 50 acres, exclusive of road and waste land. Premiums, \$50 each; and for best cultivated grain farm, not less than 50 acres, *woodland included*, \$30 premium.

Persons desiring to enter their farms will please give notice to the Secretary by the 1st of July, so that the farms can be examined by a committee appointed by the Executive Board. Premium \$50 for best acre of carrots raised by boys under 18 years of age, (not less than 600 bushels per acre) Directions furnished by secretary on application. **B. P. JOHNSON, Secy., Agricultural Rooms, Albany, N. Y., May 2, 1859. je2t.**

**A BOOK THAT EVERY FARMER SHOULD HAVE.**

WILL BE PUBLISHED EARLY IN JUNE,

Plain and Pleasant Talk about Fruits, Flowers and Farming.

By **HENRY WARD BEECHER.**

1 volume. 12mo. Price \$1.25.

Agents wanted, to whom a liberal discount will be given. Copies sent by mail, postage paid, on receipt of the price. Address **DERBY & JACKSON, June, 1859—2t** 119 Nassau street, New York.

**INGERSOLL'S IMPROVED PORTABLE HAY PRESS.**

Is the best and cheapest Press in the country. Farmers will do well to examine ours before purchasing elsewhere. Prices \$50 and \$75, delivered in New York free of charge, and warranted to give satisfaction.

Also Ingersoll's Improved Horse Hay Fork or Elevator. Price \$2. And Ingersoll's Combined Horse Rake and Hay Spreader. This Machine excels in novelty and excellence. For circulars containing full information, address **FARMERS' MANUFACTURING CO., Green Point, King's Co., N. Y.**

N. B. Farmers visiting New York city are invited to give us a call, as we are but 20 minutes ride from the City Hall. **je—3t\***

**AGRICULTURAL AND HORTICULTURAL BOOKS—A**

large assortment always on hand, and made a special arrangement of our trade. Send the money for any thing in the market, and we will mail it free of charge. **E. DARROW & BRO., Publishers. June, 1859—2t**

**RUSSIA OR BASS MATTS**—Selected expressly for budding C and tying. **GUNNY BAGS, TWINES, &c.,** suitable for nursery purposes, for sale in lots to suit, by

**D. W. MANWARING, Importer, 243 Front Street, New York. August, 1858.—1y\***

**VIRGINIA FARM FOR SALE.**—I offer 1200 acres of rich and highly improved land, with good buildings, an abundance of marl and wood, on Potomac river, Stafford county, Virginia, for only twelve thousand dollars. Address **G. B. WALLACE, Fredericksburg, Va. May—3t**

**PERUVIAN GUANO.**—No. 1 Peruvian Guano, Government brand and weight, direct from Peruvian agents, in quantities to suit purchasers, at the lowest market price. **A. LONGETT, 34 Cliff St., New York. March, 1859.—5t**

**LOOD STOCK FOR SALE.**—One two-year-old Colt by "Mariner," out of "Miss Mattie;" two Alderney Bull Calves, five the other six months old; two pairs "Shanghai Sheep." **WILLIAM EDMOND, 48 Barclay St., New York. May 3t**

**MANNY'S COMBINED REAPER AND MOWER, WITH WOOD'S IMPROVEMENT, For the Harvest of 1859.**



THE subscriber begs to inform the public that he continues to manufacture this popular machine, and pledges himself to produce an implement that will fully sustain its former reputation, as the best combined machine yet introduced, and inferior to none, either as a Reaper or Mower.

It has had a steady and increasing popularity from the first, achieving a complete success in the first important trial at Geneva in 1852. It carried off the highest honors at the great National Field Trial at Syracuse in 1857; and amidst all the competition and trials of 1858, came out with more and better established points of excellence than ever before.

The general principles peculiar to this machine, and upon which it is constructed, have proved so successful that there has been no attempt to change them.

The main effort during the last year has been to improve its mechanical construction to make it stronger and more durable, and sustain its reputation as the leading and most acceptable machine to the largest class of farmers in the country.

Warranted capable of cutting from 10 to 15 acres of grass or grain per day, in a workmanlike manner.

Price of Machine as heretofore, varies according to width of cut, and its adaptation in respect to different sections of the country, from \$125 to \$150, delivered here on the cars.

**WALTER A. WOOD,**

Manufacturer and Proprietor, Hoosick Falls, N. Y.

**BENNETT GRAY, Brockport.**

Wm. **HENRY HARMON, Scottsville.**

June, 1859—2t Agents for Monroe Co., N. Y.

**SEYMOUR & MORGAN'S**

**NEW YORK SELF-RAKING REAPER AND MOWER.**

WE now offer to the Farmers of New York our Self-Raking Reaper and Mower Combined, constructed with reference to its use in this State, and we can now confidently assure the public that our Machine is reliable as a good Mower and Reaper, and has advantages over other machines of raking off the grain, better than can be done by hand labor. This is manifestly an important and very necessary combination, which must soon be generally acknowledged. It is but a little time since we were told by our most intelligent Farmers in this section, that Reaping Machines might do well on the Prairies of the West, but would never be useful in this State. So objections and doubts will ever be made and entertained in regard to most improvements, which time and a practical knowledge on the subject can alone correct; and we now take this occasion to say that the self-rake will soon be an indispensable attachment to the Reaper, notwithstanding there are many interested and disinterested opinions to the contrary. We cannot believe it probable that in this age of improvement, our intelligent Farmers will continue long to do the severe labor of raking off the grain in an imperfect manner, when it can be well done by the labor of their horses.

Our Machine is warranted to do the work well in every particular, and requires no more than ordinary care to keep it in order. Full particulars can be obtained by sending for a circular. Address **SEYMOUR, MORGAN & ALLEN,**

June, 1859—1t. **Brockport, N. Y.**

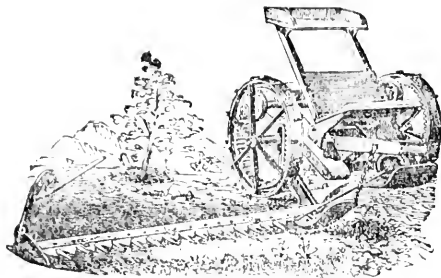
**10,000 COPIES SOLD.—THE PRACTICAL HORSE FARRIER** containing the whole of **FAREY'S ART**, with illustrated instructions; an account of the various Breeds; the Cause, Prevention, and Cure of Diseases; the largest collection of valuable Receipts ever published. Illustrated, &c., &c. Sent free on the receipt of 50 cents in stamps.



June, 1859—R

**E. NASH, Publisher, Auburn, N. Y.**





### WOOD'S MOWER.

Patented February 23d, 1859.

**D**URING the six years I have been engaged in the manufacture of the Manny Combined Reaper and Mower, I have given much thought and attention to the construction of what I foresaw would be a great want of the Farmers—a lighter and cheaper machine expressly for mowing, than had yet been made.

And now, after the most thorough and repeated experiments and tests in every variety of field, and in all kinds and every condition of grass, I am prepared, with entire confidence, to offer to the farmers and dealers of the United States, the great desideratum in this department of Agricultural labor-saving machines—a Mower, superior in its capacity for good work to any hitherto introduced, of easy draft, light, cheap and durable.

This machine I now offer as my latest invention, to meet a special want of farmers, and to place within the reach of all a Mower that for practical working, cheapness and simplicity, will be without a rival.

I build Two-Horse and One-Horse Mowers. The Two-Horse Mower weighs 425 lbs., and cuts a swath four feet wide, (or more if specially ordered.) The One-Horse Mower weighs 30 lbs. less, (35 lbs.) and cuts a swath three and a half feet wide.

For a more full description of the Mowers, reference is made to my Pamphlets, which will be furnished on application. With each machine will be furnished two extra guards, two extra sections, one wrench and oil can.

Warranted capable of cutting ten acres of grass per day in a workmanlike manner.

Price of Two-Horse Mower,.....\$50

" One-Horse Mower,..... 70

Delivered here on the cars.

I continue as heretofore, and with greater success than at any previous time, the manufacture and sale of "Manny's Patent Combined Reaper and Mower with Wood's Improvement."

WALTER A. WOOD.

Manufacturer and Proprietor, Hoosick Falls, N. Y.

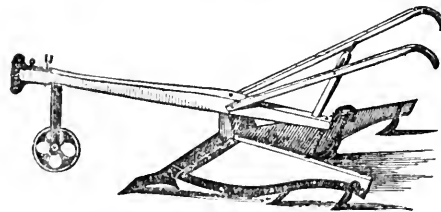
PEASE & EGGLESTON, 84 State St, Albany, Agents for Albany County and vicinity.

BENNETT GRAY, Brockport.

Wm. HENRY HARMON, Scottsville.

June, 1859—24.

Agents for Monroe County, N. Y.



### FARMERS, SAVE YOUR MONEY:

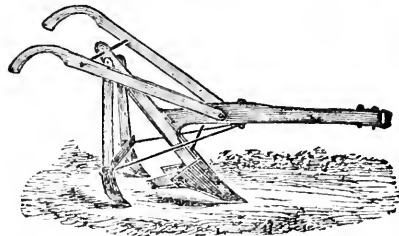
**TRY ONE OF SHARE'S PATENT CULTIVATING, HOEING AND HILLING MACHINES, price \$10, which will save more than twice its cost the first season, and with ordinary care will last years. It is light and easily used with one horse, and will do more cultivating in going between the rows once, than an ordinary cultivator can do in two or even three times, and will hoe and hill any crop planted in hills (the crooked form of the back part of the wings give the hills the desired shape) or drills fast as a horse can walk, and better than men can do it with hand hoes. Price only \$10, and warranted—weight 80 pounds. Manufactured by PEASE & EGGLESTON, 85 State St, Albany, N. Y.**

Dealers in all kinds of Agricultural Implements, Seeds, &c. June, 1859—14.

**A MERICAN CABBAGE SEED**—Of the PREMIUM FLAT DUTCH variety. We can supply Gardeners and the Trade in limited quantities, with the seed of the above finest of all Fall and Winter Cabbages. Warranted to head sold, \$3 per pound, my 21 J. M. THORBUEN & CO., 15 John St., New York.

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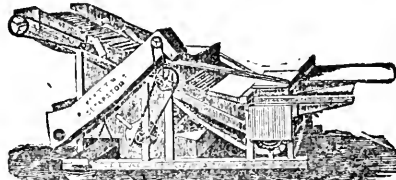
### HYDE & WRIGHT'S PATENT HORSE-HO OR CULTIVATOR PLOW,



Designed, and better adapted than any other implement, for hoing Corn, Broom Corn, Potatoes, Cotton, or any other crop requiring the use of the Horse or Hand-Hoe. It has proved its most valuable implement yet invented for the purpose intended. It has been in use in Western New York for the past years. Its great utility has been demonstrated in the fact that to day to the acre, with a man and horse, is all the expense of cultivating and hoeing a field of corn for the season. If used as directed, hand-hoeing, in nine cases out of ten, may be entirely dispensed with. We have numerous certificates of the most satisfactory character, which we would be happy to show the public.

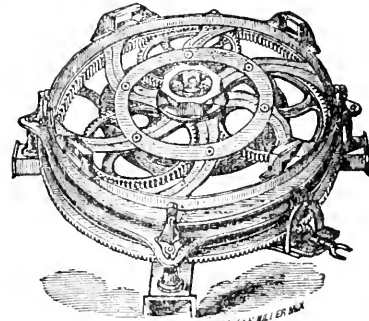
Price, \$8; if ground and polished, \$8.50. No farmer should without one. They are having an unlimited sale. Sold at who sale and retail.

### IMPROVED THRESHING MACHINES AND HORSE POWERS.



The above cut is a representation of the justly celebrated PIT MACHINE FOR THRESHING AND CLEANING GRAIN at one operation. It is the best Machine in existence.

The following cut represents an improved, all iron, EIGHT OR TEN HORSE POWER.



As a superior and every way reliable Horse Power, the above stands unrivalled.

We call attention to the fact that we are now manufacturing the above Machines, at Rochester, N. Y., in a more substantial and durable manner than any hitherto built in this city, having all the latest improvements.

We also make Pitts' celebrated DOUBLE PINION EIGHT OR TEN HORSE POWERS.

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We offer Stoddard's Mower to the Farmer as preferable to every other Mower. It will cut salt, lame, or prairie grass; will do work well; does not clog; will cut as much per hour, with a horse, as any other Mower with two horses. Its draft in cutting is only from 50 to 110 lbs. Cuts 4 ft. 2 inches. Price, \$100.

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All who are in want of a Feed Cutter, adapted equally well the cutting of all kinds of fodder, will find our Cutting Box in respects to answer their wants.

May, 1859.—84 65 South St. Paul street, Rochester, N. Y.

IN PRESS. IN PRESS.

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A GREAT AGRICULTURAL WORK,

COVERING THE WHOLE GROUND OF

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LANDSCAPE GARDENING,

with 225 superb illustrations, designed and engraved expressly for the work, by eminent artists.

By R. MORRIS COPELAND, Esq.

Such a work as the above has long been needed, combining in one volume a whole Library of Facts, and the experiences of the best Agriculturists in both hemispheres, brought down to present day, and all arranged in months, so that any cultivator of the soil, be he the proprietor of hundreds of acres or of a single acre, can have before him a Practical Manual, or rather an Encyclopedia, divided into months, showing him at a glance just at what time he must do in every month in the year, when to plow, when to plant and what to plant, how to plow, and how to plant, from the smallest flower to the cereals which sustain life. Also the most complete description of the manner of constructing and managing Hot Houses, containing a thorough treatise, with full illustrations, on Rose Culture, together with descriptions of the principal Flowers, Plants, and Shrubs, which can be cultivated here, how to cultivate them, and the most elaborate treatise yet published on LANDSCAPE GARDENING, with numerous plans for laying out gardens, or fields, or entire farms, with complete plans and descriptions for draining lands.

Mr. Copeland is well known in his profession; he has made it an enthusiastic study of his life; and probably there is not a man in this country who is better qualified than he for so great an undertaking. And that he has acquitted himself nobly in this work which he now offers to the public, we have the testimony of several of our most distinguished Agriculturists, who have examined his proof sheets.

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We want a few FIRST RATE AGENTS, and only a few. We want some who have had experience in selling books of this high order. We will give such a territory sufficiently large to employ them profitably for one year.

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Equalled by any other Work in any Language!

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A NEW BOOK,

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"EVERY BODY SHOULD HAVE A COPY."

THE

Rural Annual and Horticultural Directory

FOR 1859.

THIS work was started in 1856, by the publisher of the *Genesee Farmer*. Its great success affords conclusive evidence, not only of its intrinsic merit, but of its adaptability to the wants of the rural population. A new volume, prepared with great care and replete with new and valuable matter, is issued each year. The fourth volume, for 1859, has appeared, and is a book which cannot be too highly recommended—alike beautiful, interesting, and useful. The articles are all written for its pages by men of experience. It is illustrated with seventy-five appropriate and beautiful engravings.

Among its contents may be mentioned able treatises on Under-draining Orchards and Gardens, on the Fruits of the Ohio Valley, on Fruit Culture in the West, on the Cultivation of Fruit Trees in Pots under Glass, on Training Wall and Espalier Trees, on the Cultivation of Bulbous Plants, on the Management of Ducks, Geese, and Swans, on British Breeds of Cattle, on the Cultivation of Ruta Bagas, &c., &c., and a List of Fruits recommended by the American Pomological Society at its last session.

The work will be found invaluable to the Fruit Grower, and useful to every one interested in Rural affairs.

It is furnished at the low price of Twenty-five Cents,—while it contains as much matter as many dollar books. *Every one who owns a rod of ground should have it.* It is sent pre-paid by mail to any address on the receipt of twenty-five cents in coin or postage stamps. Address JOSEPH HARRIS,

Publisher and Proprietor

Of the *Genesee Farmer and Rural Annual*, Rochester, N. Y.

The back numbers, for 1856, 1857, and 1858, can be furnished at twenty-five cents each, postage paid.

KETCHUM'S COMBINED HARVESTER.

- KETCHUM'S Improved Combined Machine, "Iron Frame," with Reel and adjustable Roller. Cut 4 feet 10 inches.....\$130
- KETCHUM'S Improved Two Horse Mower, "Iron Frame," with the adjustable Roller to Cutter Bar.....\$110
- KETCHUM'S Improved One Horse Mower, Iron Frame.....\$ 75
- SANFORD'S Portable Farm Mill for Grinding Feed for Stock, Plaster or Bones for Manure.....\$ 30
- SANFORD'S Portable Plantation, or Hand Henny Mill.....\$ 20

Machines and Mills shipped without extra charge.

These Machines are simple in construction, have no equal for durability and light draft, are entirely free from all side draft, and have no weight upon the horse's neck.

This Machine, as improved for 1859, was awarded the first premium by the Michigan State Agricultural Society, at its annual Fair in September last, as a Reaper and as a Mower.

The New York State Agricultural Society, at its late Fair, awarded it the first premium as a Combined Grain and Grass Harvester.

Ohio, also, awarded it its best commendation.

Two Horse Machine warranted to cut from 10 to 15 acres of grass or grain per day.

One Horse Machine warranted to cut from 5 to 8 acres of grass per day.

All orders will receive prompt attention.

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Manufacturer and Proprietor, Buffalo, N. Y.

I have for sale pure Hungarian Grass Seed. Price three dollars per bushel.

Emery's One and Two Horse Railroad Powers for sale at manufacturer's prices, adding transportation from Albany.

May, 1859.—3t

R. L. HOWARD.

ALBANY TILE WORKS—CORNER CLINTON AVENUE AND A. KNOX STREET, ALBANY, N. Y.—The subscribers, being the most extensive manufacturers of DRAINING TILE in the United States, have on hand, in large or small quantities, for Land Draining, ROUND, SOLE, and HORSE-SHOE TILE, warranted superior to any made in this country, hard-burned, and over one foot in length. Orders solicited. Price List sent on application.

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C. & W. McCAMMON, Albany, N. Y.

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May—2t

EMORY LUCE, Ashtabula, Ohio.

THE  
**GENESEE FARMER**  
 FOR 1859.

Premiums for the Half Volume.

There are many farmers in every town in the United States and Canada, who are not now taking any agricultural paper. In order to reach this large class, we have concluded to take subscriptions for the coming half volume of the *Genesee Farmer*, commencing with the July and ending with the December number.

**TERMS.**—We will send the *Genesee Farmer* for the coming half year—July to December inclusive—single subscribers, 25 cents; five copies for \$1, and a copy of our beautiful 25-cent book the *Rural Annual and Horticultural Directory*, prepaid by mail, to the person getting up the club; eight copies for \$1.50, and a *Rural Annual*, prepaid by mail, to the person getting up the club; sixteen copies for \$3, and a *Rural Annual* and an extra copy of the *Farmer* for a year, or two for the half volume, to the person getting up the club.

CASH PREMIUMS

For the Greatest Number of Subscribers.

We also offer the following Cash Premiums for the greatest number of subscribers for the coming half volume, sent in by the 15th day of October:

1. TWENTY DOLLARS, in Cash, to the person who shall send us the largest number of subscribers, (at the lowest club price of 1-1/4 cents each,) before the 15th day of October, 1859. (The order with the money must be received, not mailed, on or before the 15th of October.)
2. FIFTEEN DOLLARS to the person who shall send us the second highest list, as above.
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10. THREE DOLLARS to the person who shall send us the tenth highest list, as above.
11. TWO DOLLARS to the person who shall send us the eleventh highest list, as above.
12. ONE DOLLAR to the person who shall send us the twelfth highest list, as above.

The club need not be all at one post office. We will write the names of the subscribers on every paper, and send them to as many different post offices as is desired.

We stereotype each number of the *Farmer*, and the back numbers of the present half volume can be supplied in the club at the same rates as the above (37 1/2 cents for the year).

We cordially invite Postmasters and all friends of agricultural improvement to act as agents for the *Genesee Farmer*. We will cheerfully send them specimen copies, show-bills, &c., if desired. Money may be sent at our risk.

Address **JOSEPH HARRIS,**  
 PUBLISHER AND PROPRIETOR,  
 May 1, 1859. ROCHESTER, N. Y.

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THE GENESEE FARMER,

A MONTHLY JOURNAL OF

AGRICULTURE AND HORTICULTURE

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BY JOSEPH HARRIS.

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☞ All friends of rural improvement are respectfully solicited to obtain and forward subscriptions.

Specimen numbers sent free to all applicants.

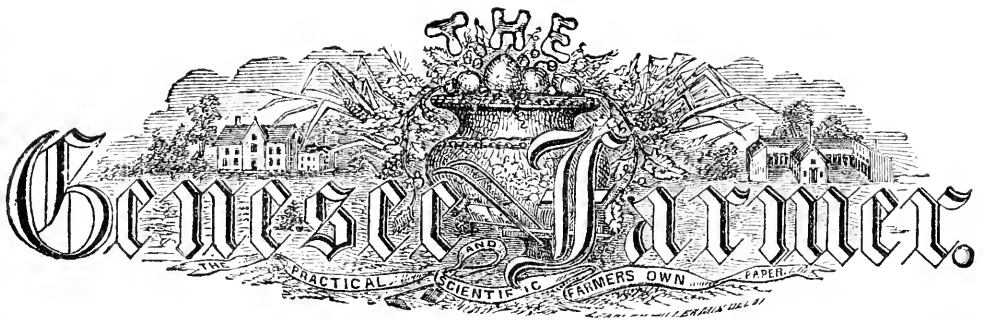
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**POSTAGE.**—The postage on the FARMER, sent to any place in the State of New York, paid quarterly in advance, is three cents a year; to any other place in the United States, six cents a year. We pay the American postage on all papers sent to the Colonies or any of the other British Provinces.



### HINTS ON HARVESTING.

MUCH has been written in favor of cutting wheat while still green—say ten or twelve days before fully ripe. The principal reasons adduced are—

1. The grain and straw contain starch and sugar, a portion of which, when the wheat is allowed to get fully ripe, is converted into woody fibre or bran; and that, consequently, fully ripe wheat yields more bran and less flour than that cut green.
2. The straw, when cut green, is of more value as food for stock.
3. There is less loss by shelling.
4. It gives a longer time for harvest operations.

That there is some loss of starch by allowing grain to get fully ripe, is quite probable; but that it is as much as has been frequently stated, there is no evidence. One thing is certain—that if wheat is cut too green, it shrinks and yields an inferior sample. On the other hand, when fully ripe, the quality is somewhat deteriorated, and there is frequently much loss from shelling. We know of no better general rule, than to cut wheat as soon as the grain becomes solid. *Press a grain between the thumb and finger; and if there is no milk in the berry, the wheat is ready to cut.* Then, with our rapid-working harvesters, all the wheat can be cut down before it has time to become fully ripe.

The same remarks will apply to barley. As soon as the sap in the grain disappears, though the berry is still quite soft, it will do to cut. The general rule is to cut as soon as the reddish color of the ear has disappeared. When fully ripe, the ear bends down to the straw, and is apt to break off in mowing and subsequent operations, causing much loss. Still, for malting purposes, barley cut when fully ripe is preferred. The same is true of wheat when used for seed;—it should be allowed to grow till quite ripe. It is better to run the risk of a little loss than to cut too early.

Oats are generally cut when rather green. On the whole, taking into consideration the increased value of the straw as fodder, this is a good plan;

though to obtain the best sample of oats, it is advisable to let them get fully ripe, even till a few of the lowest berries in the ear shell out.

BINDING is too often done carelessly. It is hard and unpleasant work, and is performed in a hurried manner. To bind well and rapidly, requires a skillful hand and considerable practice. Some binders leave more wheat on the ground than would pay the wages of better men, and their sheaves so often tumble to pieces as greatly to impede the future operations of pitching, unloading, and threshing. The sheaves should not be too large, as the straw is longer in curing. We have seen wheat bound too tight—so tight that the straw under the band remained damp for several days after loosely bound sheaves were quite fit to stack. But it is not often that an error is committed in this direction.

SHOCKING should be performed with care. How often do we see half the shocks blown down, involving much unnecessary labor, and, in unsettled weather, much loss. Such a harvest as 1855 should teach us to be more careful in this respect. Wheat properly shocked, with two sheaves placed on the top, with the ears downward, as is common in England, passed through the wet weather comparatively uninjured; while other wheat, carelessly shocked, was one-half sprouted.

Barley is sometimes bound up like wheat; and many good farmers think this the best as it certainly is the neatest plan. When mowed by hand, it should be turned in the swaths, if necessary, and then put up into cocks and the land raked by hand.

The same is true of oats, except that they are more easily bound up; and the practice is much more general than with barley.

PITCHING and LOADING are among the pleasantest of harvest labors. We like to see the work performed with energy and spirit; but in this case, as in many others, the old adage, "the more haste the less speed," is verified. The loader should be careful to lay the sheaves so that they will ride

safely home. It is unpleasant and unprofitable to have a load upset; and when a sheaf tumbles off, and is driven over by the returning wagon, it dampens somewhat our enthusiastic admiration of "Young America." The pitcher should always throw the sheaves with the ears toward the loader; and he, if he pitches off his own load, will soon learn to place them in regular order, and to keep the middle of the load well up.

STACKING should be done by an experienced hand. To such, any hints we might give will be unnecessary. To build a stack that will shed rain, is quite an art. As the top is approached, the middle of the stack should be kept full; and in making the roof, the outside should be gradually lower than the center at each successive layer. With a little straw or loose grain to top off with, such a stack will not be materially damaged by ordinary showers till it can be threshed. But most farmers in this section have sufficient barn room to hold all their wheat; and in this case, nothing more is required than to stow away the sheaves as compactly as possible. There is, however, great difference in this respect. Some persons will put half as much again wheat into a mow as others.

#### METHOD OF HARVESTING GRAIN IN AUSTRALIA.

In the fine climate of Australia there is no necessity for building barns, or stabling cattle in winter. The harvesting, threshing, and cleaning operations are all done at the same time. The machine cuts off the wheat heads about six inches below the ear, and they fall into a large canvas hammock, which, as soon as filled, is emptied on a platform of boards at the end of the field. When the field is cut, a threshing machine is set to work, and the wheat is ready for market. The straw is allowed to stand till near seed time, when it is set fire to and burnt off, leaving the land perfectly clean—every noxious seed is destroyed. The land is then re-sown with wheat and harrowed in; and this system continues year after year.

The wheat grown in Australia is plump and thin-skinned, averaging 65 lbs. per bushel, and gives a larger proportion of flour than American wheat. An average crop there is 30 bushels per acre; but 50 to 60 bushels per acre is common on volcanic soils.

THE FIRST ENGLISH TREATISE ON HUSBANDRY was written by Sir A. FITZHERBERT, Judge of the Common Pleas, in 1534; and from its appearance HARTZ dates the revival of husbandry in England.

#### SHEEP AND CLOVER ON LIGHT SOILS.

We are acquainted with an old farmer in Canada, one of the pioneers of the country, who for many years, by pursuing a judicious system of cropping, kept up the fertility of his farm, and rendered it more and more productive and himself more wealthy, while his neighbors, in their hurry to get rich, were ruining their farms by successive grain crops, till many of them became little better than blowing sand, and their owners had to sell off for next to nothing, and move to new locations. His farm, at the time we saw it, in 1851, comprised some 400 acres under cultivation, the soil a sandy loam, with the exception of 100 acres surrounding the farm buildings, that were of a clay loam, and including some 30 acres of wet meadow used as pasturage for cows and young stock. The balance of these 100 acres of heavier soil was devoted exclusively to raising hay, oats, corn, &c., for the winter keep of the animals on the farm, and the use of the family. The 300 acres of light soil were devoted exclusively to the production of wheat and which was almost the only crop sold off the farm, the straw of the wheat being consumed by the young stock in winter, and the manure made was applied to the crops on the heavier soil of the farm. The stock raised, however, was of a very superior description, and included some fine Devon cattle and superior young horses, adding largely to the profit of the farm.

For greater convenience in working, the 300 acre were divided into six large fields of from 25 to 70 acres each, 100 acres were always kept in fallow, 100 acres in wheat, and 100 acres in clover, in regular rotation, thus giving a crop of wheat every year from 100 out of the three hundred acres of land. The wheat was sown early in September and the clover seed scattered on the surface, at the rate of 10 lbs. an acre, as soon as the wheat was well harrowed in; and thus the clover had chance to make a good growth before the winter set in, and get an early start next season. By the time the wheat was cut, the clover had thickly covered the ground, and almost hid the wheat stubble. Sheep and young stock were now turned into the stubble in moderate numbers, so as not to eat down the young clover too much, and were removed early in October to let the clover get a good top as a protection from the frosts of winter. In June of the following year, a number of sheep were turned on the clover to fatten, either purchased, to re-sell to the butcher, or allowed the run of the clover at so much per head per week; and as fast as they fattened, they were sold, and other

took their places. About 80 heavy Leicester ewes were kept as breeding stock for early lambs, and these also were put into the clover. Enough sheep were kept on the clover to keep it from running to blossom. By October, all the fattening sheep had passed into the butcher's hands, the breeding ewes were turned into other portions of the farm, and the clover was now turned under with the plow, ready for next year's summer fallowing.

The third year, the land was thoroughly fallowed, receiving three plowings besides the one of the fall before, and by seeding time was in as fine tilth as a garden. Under this system, the crops of wheat obtained were magnificent, the yield that year (1851) averaging 45 bushels per acre.

The tillage was not deep, the plow not penetrating below six inches; but the droppings of the sheep, the turning under of the clover in the fall, thus preventing the ammonia derived from them from being washed away during winter, combined with a thorough summer fallow to kill all weeds, rendered the soil particularly clean and adapted for wheat. The profits derived from the fattening of the sheep more than paid the two years rent of the land while in clover and fallow, thus leaving the wheat crop to bear only its own expenses of cultivation, &c.

But the farmer's wife was one of those hard-working, money-getting beings too often met with among the old settlers. She ruled the family, and made the boys work hard. She kept the girls at the dairy and spinning wheel, and scouted the idea of sending them to school as a useless waste of time.

Last year we saw the place again, but a change had come over the scene. The farmer had now grown old, and for some years past had relinquished all the land, but a few acres round the old homestead, to his youngest son and some of his sons-in-law. They, thinking the system pursued by their father too troublesome, and wanting in that education that would have elevated their ideas, had sold off or swapped all the fine stock the old man had been at so much pains to raise, and had let the farm in small portions on shares, and year after year it had been cropped and re-cropped with grain, till it was fast becoming as poor as the surrounding farms. The old man took us round to see the wreck of what he once took a pride in as the finest farm in the country, the expensive threshing machine, grain drills, and other implements, now gone to decay and lying here and there under the fences; the horses he once prided himself on, now in their old days turned loose to

wander about the roads for a living, while the stables were filled with strange horses, the yards with strange cattle, while stranger men had erected their shanties here and there about the farm.

#### MEASURING HAY.

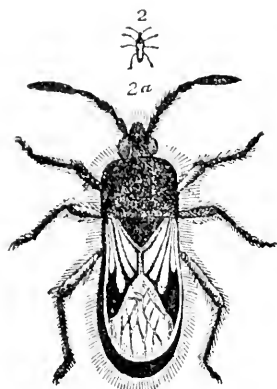
THERE appears to be great diversity of opinion in regard to the best method of ascertaining the weight of hay by admeasurement. One writer in this State says: "Multiply the length, breadth, and height of the hay into each other, and if it is somewhat settled, ten solid yards (270 cubic feet) will weigh a ton. Clover will take from eleven to twelve yards to a ton." Another says: "For timothy and blue grass, it will require seventeen cubic yards (459 cubic feet) to make a ton. Clover hay will require 512 cubic feet, or eight feet square." Another, from Maine, says: "600 cubic feet have been sold here for a ton; but in very large, deep bays, where the pressure is immense, 500 cubic feet would make a ton. Clover would be lighter." One from Vermont says: "From 360 to 500 cubic feet make a ton, according to how much the hay is settled." In a work published some years ago, the author gives 268 cubic feet as a ton. Low, a Scotch author, says: "Hay in a field-rick weighs somewhat better than 112 lbs. per cubic yard; when it has been sometime stacked, it weighs from 140 to 180 lbs. per cubic yard; and when old, 200 lbs. per cubic yard; or from 270 to 482 cubic feet will make a ton." The *New Jersey Farmer* states that from 700 to 800 cubic feet are required to make a ton of 2,000 lbs.!

The rule we have used, where hay is tolerably compact in the stack or mow, is to allow 15 cubic yards, or 405 cubic feet, for a ton (2,000 lbs.) of clover hay, and 14 cubic yards for timothy.

We should be glad if our correspondents who have tested this matter by actual measurement and weight, would give us the results.

CULTIVATION OF MADDER FOR PASTURAGE.—It has been found, in Algeria, that a plantation of madder may be used as pasturage for cattle for several years, without depreciating the value of the roots. In March, 1851, a farmer sowed a quantity of madder in a field well prepared, of a strong argillaceous soil. It was left without care. After the first year, cattle were allowed to run on it for the next succeeding three years, finding abundant pasturage during a season of great heat. At the end of this time the roots were pulled up, and proved to be of excellent quality for dyeing purposes—even rivalling the best of French madder.

## THE CHINCH BUG.



This insect (*Micropus leucopterus*), is allied to the bed-bug, which it resembles in many respects, particularly in emitting the same disagreeable odor.

It is occasionally very destructive to the wheat, oats, and corn, in the southern and western states; but from its only appearing periodically, in dry seasons, comparatively little is yet known of it, although Mr. JAY described a similar insect in 1831.

Its depredations are mostly confined to particular locations, here and there extending, perhaps, through three or four adjoining counties. In its perfect state it is about 3-20 of an inch long, of a coal black color, with snow white wing covers lying very flat upon its back, and showing a black margin and two black spots. Fig. 2, natural size; 2a, magnified. It never appears in the form of larvæ but lays its eggs in the ground in the autumn, where they remain through winter until the warm weather of the June following, when they hatch in the form of a small bright red bug, without wings, which gradually becomes transformed into the perfect insect, which may be called a fly. The cut gives so good an idea of the insect as to render a full description unnecessary. It commences its ravages as soon as it leaves the egg, puncturing the plants with its sharp, needle-like beak, and sucking out the juices on which the insect subsists. As it does not wound the plant by gnawing it, one would not suppose it would occasion much injury; but the numbers of these insects are so great, where they are found at all, that they bleed the plants so copiously as to arrest their growth, and cause them to wither and die. They prefer wheat to any other herbage, and remain upon it until harvest, when they leave it and migrate to fields of oats or corn, running nimbly over the ground like a swarm of black ants. They continue to subsist on the corn, appearing like a swarm of bees settled on the cornstalks, so thickly do they cover them, and the corn in its turn is depleted and destroyed. As soon as the cold weather appears they suddenly disappear. They seem like their congener, the bed bug, to have a particular dislike

to moisture, as they never appear in wet seasons, and a sudden shower, or long continued rain, will often be effectual in stopping their ravages for the season. So sudden, however, is their appearance, and so rapid the destructive progress of these insects, that no effectual remedy appears to have been yet discovered for getting rid of them.

## LINSEED-CAKE IN ENGLAND.

THE last number of the *Journal of the Royal Agricultural Society* contains an article on Linseed Cake as Food for Cattle and Sheep, from which it appears that the article is adulterated to a great extent, not only in this country, but also in England. The linseed itself, too, is largely mixed with inferior seeds, such as wild mustard, rye-grass, dodda (*Cuscuta epilinum*), willow-weed, and millet.

The linseed-cake from the United States is said to be "faultless to the eye, thin, tender, flaky, and finds a ready sale in this country [England] at the highest market price of the day." But it is said to be adulterated with bran.

The use of linseed-cake has been steadily increasing in England for the last seventeen years. In 1841, there were 2,907,688 bushels of linseed imported into England; and in 1857, 8,800,000 bushels. The latter would make 137,500 tons of linseed-cake, worth \$50 per ton. In addition to this there were imported, in 1857, 100,000 tons of cake, making the total value of linseed cake consumed in England in 1857, about *ten millions of dollars* (\$10,000,000)!

**TYING UP CATTLE.**—A friend sends us a communication, strongly condemning the practice of tying up cattle. We agree with him in the main. Young stock and store cattle should not be constantly confined. Open sheds and a yard to roam in are better than close barns and stables. If tied up during the night, in cold weather, they should be turned into a sheltered yard during the day. Exercise is essential to their healthy growth. With fattening animals the case may be different.

**HOVEN IN CATTLE.**—A Vermont correspondent says it is better to prevent hoven by being cautious not to turn animals into rank pasturage without salting them, or from a dry pasture into succulent clover, especially while the dew is on. To cure he says, fast the animal, and drench with one quart of a decoction of thoroughwort. If attended with fever, injections and backraking may be necessary. Afterwards, give a few raw potatoes well salted with good hay or cornstalks.



## SHEEP IN AUSTRALIA.

A gentleman recently from Australia informs us that the number of sheep in that country in 1854 exceeded twenty millions. Nearly all of them are of the fine-wooled breeds. Among them may be found many flocks remarkable for the fineness of fleece and purity of blood. The average yield of clean washed wool is two pounds per head, but some flocks yield more. Their numbers multiply very rapidly, a flock of breeding ewes nearly doubling every year; and at one time they increased so that the supply exceeded the demand, and good sheep were sold, after shearing, at 25 cents per head. Of late years, the scab has made its appearance among them, and destroyed great numbers. The advent of the mining population has also largely increased the consumption of mutton; so that in 1856 sheep fit for the butcher readily brought \$4 per head.

Sheep farming in Australia is quite a pastoral occupation. Grass grows abundantly throughout the year, and the sheep require no shelter during the mild winter. A shepherd, accompanied by three or four well-trained dogs, looks after every 5000 sheep, and follows them in their wanderings, folding them at night. He generally, however, leaves his dogs to watch the flock and keep them together while he snores away, fast asleep, under the shade of some tree, the dogs taking care to keep the sheep from wandering too far away from him. Australia may be called the paradise of sheep farmers.

**DRILLING WHEAT.**—A correspondent says that drilling wheat renders it less liable to be winter-killed, as the plants have a more certain foothold in the soil, and the ridges left by the drill between the rows of wheat will be gradually crumbled down by the frost, and thus keep the plants from being heaved out. He says, on rolling land the drills should be run up and down the grades, to carry off the water.

**CABBAGES FOR MILCH COWS.**—We would advise our readers to raise more cabbages for feeding milch cows late in the fall. We raised 700 on a small patch adjoining the barn-yard. They were the *Flat Dutch*, planted four feet apart, in the latter end of July, and averaged 20 lbs. per head. One of them was a good feed for a milch cow at night, and kept up their milk wonderfully.

**PLASTER ON CLOVER.**—As a general rule, plaster should not be applied to clover grown for seed. It causes too great a growth of stems and leaves, makes it late, and the heads do not fill well.

## ADVICE TO FARMERS.

MR. JACOB STRAWN, of Illinois, has earned the reputation of being the "giant farmer of the West." Twenty-seven years ago he settled in Illinois, a poor man. His operations were small at first, but continued to increase each year, until he had reduced over 30,000 acres of land to a state of cultivation. He has one farm of 7,800 acres, and another of 10,000. He has usually employed some 200 to 300 men, and a large number of horses. Every year, until quite recently, he stabled from 5,000 to 6,000 cattle, and kept other live stock in proportionate numbers. In this twenty-seven years he has made a fortune of a million of dollars, and is still hale and hearty to enjoy it. He has one corn field, in Morgan county, some six miles long. Lately he has not been farming so much, having converted some of his real estate into cash. He writes the following items of advice to farmers, in the *Chicago Press*:

"When you wake up, do not roll over, but roll out. It will give you time to ditch all your sloughs, break them up, harrow them, and sow them with timothy and red clover. One bushel of clover to ten bushels timothy is sufficient.

"Make your fence high, tight, and strong, so that it will keep cattle and pigs out. If you have brush, make your lots secure, and keep your hogs from the cattle; for if the corn is clean, they will eat it better than if it is not.

"Be sure to get your hands to bed by 7 o'clock. They will rise early by the force of circumstances.

"Pay a hand—if he is a poor hand—all you promise him. If he is a good hand, pay him a little more; it will encourage him to do still better.

"Always feed your hands as well as you do yourself; for the laboring men are the bone and sinew of the world, and ought to be well treated.

"I am satisfied that getting up early, industry, and regular habits, are the best medicines ever prescribed for health.

"When it comes rainy, bad weather, so that you can not work out of doors, cut and split your wood. Make your tracks when it rains hard, cleaning your stables or fixing something which you would have to stop the plow for and fix in good weather. Make your tracks fixing your fence, or a gate that is off the hinges, or weather-boarding your barn where the wind has blown off the siding, or patching the roof of your house or barn.

"Study your interest closely, and don't spend any time in electing Presidents, Senators, or other small officers; or talk of hard times while spending your time in town, whittling away on store boxes, &c. Take your time, and make your calculations. Don't do things in a hurry, but do them at the right time; and keep your mind as well as your body employed."

The editor of the *New England Farmer* says two acres of his land, which he underdrained, "has been affected about as much as though the season had been lengthened three weeks."

## SPIRIT OF THE AGRICULTURAL PRESS.

MORACE GREELEY, who is on an overland tour through the western portion of this country to the Pacific, in his letters to the *Tribune* gives some items of agricultural interest.

Illinois he says is growing, despite the hard times. The farmers are heavily in debt and making a final stand to keep out the sheriff, by hitching every horse or ox to the plow or harrow and putting in seed on every available acre of land. Fresh buildings are being added to the cities and villages and fresh land being constantly broken up and put under cultivation, not a tenth part of the soil being yet occupied.

He found Missouri had better land, a more level surface, but little timber, and less population than he expected. The soil he says is adapted more for stock raising than grain growing; and he thinks it incredible that such lands in a state 40 years old should have remained unsettled till now.

Kansas he describes as an undulating prairie with intervals of rich black mould 3 or 4 feet deep covered with rapid growing timber, principally cotton wood, elm, hickory, and basswood.

BUCKWHEAT AND WIRE-WORMS.—A correspondent of the *New England Farmer* says buckwheat grown on a soil invested with wire-worms will entirely exterminate them. This is not new, but the fact is worth repeating at this time.

RATS IN THE CORNFIELD.—The Pontiac (Ill.) *Sentinel* says the corn cribs being empty, and but little to be found about the barns, the rats have betaken themselves to the cornfields and in some quarters have rooted up and destroyed whole fields of young corn. One gentleman got three and a half pounds of arsenic and mixed it with some corn which he then scattered over his cornfields, and in a few days he carted off six wagon loads of dead rats, and not the half of them are yet removed.

SALE OF THOROUGH-BRED SHORT-HORNS.—MR. ALEXANDER of Lexington, Ky., one of the best breeders in America, held his annual sale of short-horn stock on June 1st. Twenty bulls were sold bringing \$2,720, the highest priced bull fetching \$355. Twenty-three cows and heifers brought \$2,715, the highest price for a single heifer being \$335. These are low figures.

SEED WHEAT FROM THE NORTH.—An Ohio wheat grower recommends a change of seed wheat at once in three years, and advises farmers to obtain it "from regions north of their own." Corn is earlier when obtained from the north, but wheat is later. Is it not?

NEW HEDGE PLANT.—A correspondent of the *Am. Cotton Planter* recommends the Honey Locust as a hedge plant, and says it forms a perfect hedge in half the time required by any other plant now in use.

A NOVEL SUGGESTION IN SUBSOILING.—The *Farmer and Planter* suggests that the application of gun powder in small charges at regular points, at some depth beneath the soil, would upheave and disintegrate it to a greater amount and at a cheaper rate than can be done with the subsoil plow.

THE BEST BREED FOR WORKING OXEN.—The *Valley Farmer* says Devons unquestionably make the best working oxen from their quick elastic step, readiness to obey, great hardiness, and docility in breaking.

HAY SEED FOR HOGS.—A correspondent of the *Country Gentleman* writes, in addition to the grain and meal given to growing hogs in the sty, they should have a daily allowance of green clover, or in winter, when this is not available, a liberal allowance of hay seed from the barn, mixed with their slop, which they will eat with avidity. He knows of no mode by which so great an amount of growth and weight can be induced with equal cost of food, in the winter season, as by this haying system.

STEAM PLOW.—The Illinois Central Railroad Company offer a premium of \$1,500 for the best steam engine for plowing, or other farm work; one that can successfully compete with animal power, as regards cost and labor saving, combined.

TAN BARK FOR POTATOES.—MR. R. B. BAMFORD, of England, in a pamphlet, says he planted his potatoes in the drills with manure and covered them up with refuse tan bark instead of earth; and that in 1857 he raised six hundred and seventy-five bushels per acre and not a rotten one among them, nor has he had an unsound potato among his crop where he employed tan bark. Rather a big story.

KYANIZING WOOD.—A correspondent of the *New York Observer* gives a cheap, though not a new, mode of rendering wood durable and impervious to the action of moisture. It is simply this: One pound of blue vitriol to twenty quarts of water. Dissolve the vitriol with a little boiling water and then add the remainder. The end of the stick to be inserted in the ground is then dropped into the solution and left to stand four or five days. For shingles, three days will do; and for posts, six inches square, ten days. Care is to be taken that the saturation takes place in a metal vessel or keyed box, as any barrel will be shrunk so by the operation as to leak.

**WALL PAPER EATEN BY STOCK.**—A correspondent of the *Country Gentleman* tells of the loss of two fine heifers that died from the effects of eating old room paper that had been removed from the walls and thrown carelessly in the yard.

**EARLY WHEAT.**—The *California Farmer* gives an account of a variety of wheat growing at San Jose, California, that headed out on the 20th of April last. It is a heavy, red wheat, and has never been known to be affected by smut or rust, and is supposed to have been originally brought from Illinois. It is called the May wheat, and is earlier by some two or three weeks than Chili wheat.—The flour from it is said to be of a very superior quality.

**DOGS VS. SHEEP.**—A correspondent of the *Ohio Farmer* asks which are to be protected, "Dogs or Sheep?" He thinks if every dog was killed it would be a good riddance of one of the worst pests of the country. Some years since we were willingly taxed to pay the rewards for the destruction of wolves, to enable us to keep sheep, but dogs have now become a worse pest than ever the wolves were, particularly near villages; and were we rid of them 50 per cent. more sheep would be kept.

**RUST ON OATS.**—The *Southern Rural Gentleman*, (Granada, Miss.) says the oat crop, which suffered so extensively last year from the rust, is again attacked. Some farmers are turning their cattle on the oat fields.

**PRINCIPLES NOT PRODUCTS ENTITLED TO AWARDS.**—The *American Agriculturist* calls for a reform in the management of agricultural societies, and says their exhibitions should be made a means of contributing to the science of the art of husbandry, by having the reports and addresses carefully prepared by eminent practical farmers; and advocates offering premiums in each class to those who can combine the most science and utility with the greatest economy in production.

**HOG CHOLERA.**—This disease is making sad havoc in the western and southern states. A correspondent of the *Southern Cultivator* recommends a teaspoonful of arsenic to be given to each hog when attacked. Another, in the same paper, says, ten grains of soda ash and ten grains of barilla, finely pulverized, should be given to each hog two or three times daily, mixed in the food. Dr. Ross, of Kentucky, says one drachm of pulverized chlorate of potash, one ounce of muriatic acid, and one ounce of water, are to be put into a tight corked bottle and kept in a dark place. Two teaspoonfuls of this mixture added to a pint of water, makes a chlorine mixture,

and may be administered at frequent intervals in doses of two or three ounces at a time, to each hog on his food. To destroy the infection in a pen, the posts may be well washed with a strong solution of sulphate of iron or sprinkled with chloride of lime.

**WARMTH OF SOIL GAINED BY DEEP CULTIVATION.**—A correspondent of the London *Mark Lane Express* says: "We all know that heat and moisture are the two elements of decomposition and rapid growth, as shown in tropical countries. Deep and loose cultivation tends to this result. Possibly the action of light may also be important. One cause of the rapid growth of market-garden vegetation is depth of cultivation, combined with the subterranean heat of the decomposing manure; and wherever there is heat, moisture is attracted. The necessity for a more perfect cultivation is obvious; even on a fallow you may pick up small, hard knobs or clods, which, on breaking into fragments, exhibit a little treasure of unexplored and unavailed-of territory, confirming the great JETHRO TULL'S principle of infinitesimability in cultivation. I have great faith in the use of CROSKILL'S clod-crusher in very dry weather, for the breaking of obstinate clods."

**TURNIP SEED.**—The London *Agricultural Gazette*—most excellent authority—says: "After extensive experiments, we can declare, as their result, that turnip seed of one year old will only germinate about 50 per cent.; two years old, 30 per cent.; three years old, 15 per cent.; four years old, 5 per cent."

**COOKING FOOD FOR HOGS.**—A correspondent of the *Country Gentleman* says that, after repeated trials in fattening hogs with raw and cooked rye meal and cooked potatoes, he has come to the conclusion that one bushel of rye is equal to three bushels of potatoes to make pork, and that it will not pay to cook meal for hogs.

**JAPAN PEAS.**—A correspondent of the *Indiana Farmer* states that the Japan peas are now raised in that section in sufficient quantity to sell for ten cents per quart, for cooking and for seed. He says, "there is not a man who is fond of a leguminous dish that would not relish them, perhaps as well as he would a dish of Lima beans." They should be steeped in water twenty-four hours before cooking. This is absolutely necessary.

**MULCHING.**—The experienced editor of the *Country Gentleman* recommends applying to recently planted trees a mulch "consisting of at least six compact inches of old straw, or other litter, forming a circle six feet in diameter."

## LORD NAPIER ON AMERICAN AGRICULTURE.

At the meeting of the United States Ag. Society at Richmond, Va., the late English Ambassador made a speech, from which we take the following:

When I rise to address the great assembly which has remembered my sovereign and my country, and done me the honor of recognizing my presence at this festival, I reflect with satisfaction that however ignorant of the noble industry to which you are devoted, and however incapable of justly appreciating the efforts and services which you are rendering in its cause, I may still rank myself, though in a subordinate order, among the true sons and votaries of the soil. I remember with pleasure that my father was an unsuccessful farmer, though a successful writer on the art of farming. I belong to a class whose interests and affections are deeply rooted in the land—a class whose active age is much bestowed on the business of Parliament, or negotiation, or civil government, or the profession of arms, but whose thoughts in all the vicissitudes of life and strife still repose upon fields and sports, and who ever dream of a late return to the hereditary home. Notwithstanding this foreign vagrancy and diplomatic desertion, I remain a member of the Highland Society of Scotland; and however incredible it may appear to you, I am President of the Pastoral Association of my native country for the improvement of the breed of sheep. With such instincts and associations you will believe that I do not feel altogether a stranger here, and that I am deeply gratified by the hearty welcome that I find from the brotherhood of agriculturists, in which I claim to be an affiliated, though at present an unfruitful member.

The husbandry of America presents in its vast extension and rapid progress a spectacle to which no Englishman can remain indifferent. History offers no example of this swift, resistless, unceasing encroachment of skilled labor over the vacant and fertile domain of the savage and the brute. It is the first triumph of man, equipped with all the accumulated powers of experience and invention, over nature in her largest limits and her most gracious and bountiful conditions. In the agriculture of the United States we see with exultation a beneficent and spontaneous profession of industry, of which the field is the American continent, and of which the implement is the Anglo-Saxon arm.

While recognizing all the importance of the land and the agriculture of the United States to the social welfare of the British empire, I cannot deny myself the pleasure of expressing to you the interest which, as a mere virtuoso in rural matters, I have taken in the external aspect of American husbandry. In some respects the prospect is often indeed unsatisfactory to the English eye. In the new parts of the country the primitive graces of the landscape are ruthlessly violated, while the artificial trimness to which we are accustomed has not begun. We mourn over the blackened and girdled giant of the forest, each of which would be the sylvan honor of an English homestead—our fastidious taste complains that the furrow is not straight, that the wheat is not clean, that the swamp is not drained, that the sward bristles with obnoxious stumps; that there is a general absence of root

or green crops, and we discover a great deficiency of sheep. In the regions which have been longest under the plough, the vital forces of the soil seem to have been frequently overtaxed; the more valuable cereals are abandoned, and here and there the wilderness resumes its sway. It requires but little reflection to show that these phenomena are the natural and transitory concomitants of the first epoch of tillage, which is hasty, pitiless and impoverishing. On the other hand, I remark that in many portions of the Union there are extensive tracts which would be considered opulent and well ordered in any European kingdom. In the absence of turnips, potatoes and mangel wurzel, the English traveler is gratified by the spectacle of Indian corn, tobacco and the vine, and further south, by the cotton plant, the rice field and the cane, all magnificent and lucrative productions, unknown to British husbandry. There is also a greater abundance of fruit trees; the breed of horses equals that of the mother country, except, I think, for the purposes of heavy draft; and the various races of cattle replenished by importations of the best blood of England, will be propagated without degeneracy, and will be formidable rivals to the parent stock.

In a country where human labor is exorbitantly expensive, the greatest ingenuity is exerted in the improvement of tools and the invention of mechanical aids and substitutes, and in this respect the triumphs of American contrivances are not only profitable at home, but are recognized and adopted by foreign nations. Much, gentlemen, has been accomplished, and the future will furnish still higher results. If we regard the dissemination of intelligence, the diffusion of tastes for rural pursuits, the increased application of capital, the scientific inspection of soils, the discriminating use of manures, the development of the home market, and the general establishment of competitive exhibitions, we may safely affirm that American agricultural has entered upon a period which will not only be reparative where the past was exhaustive, but which will gradually carry the land in every quarter to a high pitch of productiveness and beauty.

FINE VS. COARSE WOOL SHEEP.—Having been a reader of the *Farmer* for the past ten years, I have during that time noticed more or less discussion with regard to the relative qualities of coarse and fine wool sheep, some recommending one kind and some another, as yielding the greatest profit to the farmer. I have kept both kinds, and as far as my experience goes am greatly in favor of the fine wool, provided they are of the right kind. I kept through the winter, one year ago, thirty-one sheep of the French and Spanish cross; fifteen ewes, (which reared me fourteen lambs,) thirteen lambs and three bucks, which sheared me 6 lbs. and 11 oz. per head, (on an average) of clean, washed wool. That sold for 40 cts. per lb., while coarse wool sold from 25 cts. to 30 cts. My sheep were provided with (what I consider indispensable) good shelter, racks under cover, and fed with corn, oats, and wheat bran, in equal parts, half bushel per day, and watered regularly. Now, if any one can show a greater profit from the same number of coarse wool sheep, I hope they will give us their experience.—Z. B. S., *Fairfield, Ohio.*

## NOTES FOR THE MONTH.—BY S. W.

**CHEAP FREIGHTS FROM LAKE MICHIGAN.**—A letter from Milwaukee says that the freight on flour and grain, from that port to New York, is now lower than it was from the Seneca Lake to New York ten years ago. The reduced tolls and enlarged canal have only reduced freight here about twenty-five per cent.; while at the West the same causes, with the present competition between the large propellers and sail craft, and the late ruinous competition of the Philadelphia and Baltimore railroads for western through freight, have reduced rates from Chicago and Milwaukee more than 50 per cent. This last competition is kept up only as bankrupts before their explosion afford to undersell regular dealers; and the president of the New York and Erie road now says that "no agreement between the New York Central and the New York and Erie roads would permit an increase of rates while the contest is continued with the Pennsylvania railroad, as this company competes with the Northern road at Cleveland, and at every other point west and northwest of Cleveland." How long this high-graded Pennsylvania mountain road can keep itself alive under competition with the great lake craft, the now enlarged Erie canal with its low tolls, and the two New York railroads, time must soon determine. The through railroad competition will probably prevent freights from Lake Michigan ever attaining former rates; but they can not long remain thus low, under the closest management, without bankrupting the Pennsylvania road.

**JUNE-PLANTED CORN.**—If Indian corn and Sorghum were not strong-rooted cereals, the plea for late planting would be as reasonable as it is for the *Cucurbitaceæ* and other tender plants. But I have always found that early-planted corn, even if it was two weeks coming up, or if it came up and turned yellow, invariably takes the lead of later planted corn, when hot weather sets in; and if there is an early summer drouth, the young plants suffer, while the early ones luxuriate, as their roots are larger and extend further. It is an old saying that July and August make the corn crop. Very true; but May and June must make both root and stalk, or the very common drouth of July and August will prevent the cereal yield; and the same if there is too much cool, wet weather, in those months. In the best seasons, corn grows slowly after the nights have lengthened. Hence it is that near the equator, where the nights are as long as the days, Indian corn is a poor crop. The argument that May-planted corn rots in the ground, is only urged by the farmer who is too lazy or too poor to underdrain his field; and as to corn being cut off by late frosts, past recovery, I have never yet witnessed it in this region. These present mornings (5th and 6th of June) are the most frosty we have had so late in many a year; yet not a corn or a potato plant has suffered, and I have them from two to twelve inches high. Beans, if uncovered, have been partially injured by it.

**PERPETUATING RED CLOVER IN MEADOWS.**—It is well known that June grass (*Poa*) will in time run out both timothy and clover in meadows, as it chokes out the incipient bulbs of the timothy plant, and the clover being cut before it has seeded, can

not be long-lived. To remedy this, I have, on a small patch of grass, suffered the second crop of clover to mature and scatter its seed, which has the effect to renew the clover; and when cut in June, with June grass, it makes excellent cow hay. To get a heavy crop, the patch is top-dressed or treated with liquid manure, and every dock is exterminated. As timothy is much later than either clover or June grass, it should never be grown with them.

**CULTIVATION OF TURNIPS.**—Your Canada West correspondent may well have a great yield of ruta bagas on his gravelly sandy loam; but to attempt to grow them on the heavy soils of Western New York, would be a bootless task. Wurzel beets succeed well invariably on a well-ameliorated heavy soil; and every man who has a garden, and keeps a cow, should grow thirty bushels as an economical change, which makes dry food not only better relished but better digested by the bovine. Those few farmers who grow beets to feed with hay and corn fodder to their milch cows in winter and early spring, bear a lively testimony in their favor; but our JOHN JOHNSTON, who makes a wholesale business of stall-feeding, says it is too much trouble to fit a heavy soil for beets, and then to grow, harvest, and feed them. He prefers corn and corn fodder, and to buy linseed meal to feed with his Indian meal, hay, &c.

Waterloo, N. Y., June 6, 1859.

**HORSE-SHOE vs. SOLE TILES FOR UNDERDRAINING.**

**MESSERS. EDITORS:**—Years ago, I laid in England thirty miles of drains, at first with the common horse-shoe tiles, latterly with pipes. In the outset, I cut the drains two feet deep; then, upon better knowledge, 3 feet, 3½ feet, and 4 feet deep. I was so persuaded of the superiority of deep drains, that I took up five miles of horse-shoe tile drains at two feet and laid them deeper, but in the same lines. Observe, these horse-shoe tiles were laid the ends of two tiles upon small flat roofing tile or slate, to prevent their sinking—in short, to answer the intention of the flange afterwards adopted. Without exception I found them more or less filled with earth! This was owing to the clay floor (hard enough to appearance) becoming softened by the running water. As a consequence, the tiles were gradually settling in mud, and in a few years longer would have been worthless as drains. I need scarcely say that when I re-laid them I put under them continuous soles or flats, and ever afterwards used pipes.

By the way, is SCRAGGS' still the best pipe machine in England, and has it been imported, or have we an American machine as economical? I am afraid we shall never drain extensively out West with two-inch pipes at \$12 per 1000. I hope to see them furnished, by-and-by, for half the money. Take our States through, \$25 an acre for draining is too high, and we shall go on but slowly till we buy our pipes at \$5 or \$6. I suppose the best machinery and a larger accompanying demand will before long give us pipes at a more reasonable rate. I say more reasonable, because two-inch pipes are not worth in England much, if any, more than \$5.

But to return. Is my experience at all confirmed in American practice? In view of satisfaction

upon this point, may I ask your correspondent JOHN JOHNSTON to dig down in a few places to *horse-shoe* tiles the *longest* laid, and ascertain and report their condition—especially have the tiles sunk in their clay bed little or much, or not at all? Is the waterway *washed away* or *choked up* in any degree?

Taking into account the quantity of land to be drained, the cost of draining, and the great advantage of thorough draining as a *first* improvement, the best possible *sort* of drain becomes (with items of depth and interval) an object of national importance. The question is then rather worthy of *present* discussion, because so little being done in any way, so vast a proportion remains to be well done. The favorable estimate of the *benefits* derived with even *present* costs, furnished by the gentleman above mentioned, must stimulate us all to our earliest efforts in the same direction. Indeed, reports of select farms—in the several matters of drainage, cropping, machinery, stock, their original and their improved state, their progress that is, and the price thereof—are at last the most practical instruction we can receive, and, with the scientific lead of an intelligent editor, all that a periodical can well set forth. Meanwhile, a greater attention to plowing in lands narrower than usual, and more careful water-furrowing by the plow after seeding, and indeed after plowing, should there be prospect of rain, may do something to make our farms drier, till we can afford to drain them with pipes.

JOHN BADLEY.

Macoupin County, Illinois.

#### SOILING HORSES.

MESSRS. EDITORS:—I have in close proximity to my barn a patch of ground  $7\frac{1}{2}$  rods by 16 ( $\frac{1}{4}$  of an acre) seeded to clover, from which I kept one span of horses in thriving condition from the first day of June last to the last day of August, beside cutting nine hundred of good hay, which I put into the barn, and harvested of the second mowing seed sufficient to stock an acre or two of ground. This may, and undoubtedly will, seem to many like a big yarn well stretched. In fact, I should doubt the truth of such a story myself, had not my eyes seen and my hands felt the truth of such a statement. By the time I had mowed two-thirds of this little patch, the remainder was fit to be made into hay, which I accordingly did up after the most approved fashion. And that part mowed first was sufficiently large to mow again. I fed them three times a day all they could eat. They smelt not, touched not, tasted not one particle of grain during the three months. Used them more or less every day, and at the end there was a perceptible gain in flesh. Never, since I could say my team, have I summered a team so cheaply. The greatest cost is cutting and putting it before the horses. I offered them water, but they did not drink to exceed a pailful a week.

I am of the opinion that if they had been turned loose upon this piece of ground, ten days would have been sufficient time to eat up and trample into the earth everything green upon it. As five acres of good pasture is little enough to summer a span of horses when allowed to run, there is almost an incalculable saving in soiling them. J. C. ADAMS.

Seymour, New York.

#### WHY DO WE OIL OUR BOOTS, SHOES AND HARNESSES!

THE hides of animals, if dried without any previous preparation, soon become hard and stiff, and of a consistence very much like glue. If used in this condition, they crack and break where bent, and their use is attended by much inconvenience. If wet, they become soft but heavy, and if not dried, undergo a slow putrefaction. To prevent this putrefaction, and at the same time to make them soft and pliable, they are immersed in a liquid containing tannin, or tannic acid. This compound fills up partially the pores, rendering it less permeable by water, and less destructible from exposure to the atmosphere. To make it still more soft, pliable, and impervious, a quantity of oil (more or less according to the use for which it is destined) is incorporated into its body. This, with the previous removal of the hair, and other manipulations of the currier, complete the manufacture.

If now kept dry, it retains its suppleness for a great length of time, but eventually the oxygen of the atmosphere, that great destroyer of all organized matter, changes the oil to a gummy or waxy substance, and the leather loses its flexibility and strength. If, on the contrary, it is exposed to wet and the alkalies contained in the water and soil, the alkalies unite with the oil in the leather and form soap, a substance of no use to the leather, and soon removed therefrom by its lack of adhesion.

Understanding this, the hint is at once taken, the necessity at once seen, of frequently supplying this loss of oil, if we would preserve the leather. The leather used as harness for teams and that worn upon the feet, is also subject to the action of the alkaline salts exuding from the skin in perspiration, uniting again with the oil, destroying its softening quality. Thus we see that a harness, having been long worn, becomes stiff if put in warm soft water. The pressure of the water determines to the surface a light colored saponaceous and gummy substance, the result of the combination of the oil with the sweat, which it is necessary to cleanse off to make room for, and render the leather permeable to a new application of oil.

There has been much discussion in a neighboring paper about the manner of oiling harness, one party contending *for*, and the other *against*, the use of boiling water in cleansing. I shall not side with either, thinking the question is better settled by experiment than dispute. Water somewhat heated seems to be very necessary, but I think that somewhere between blood heat and the boiling point, say 125 to 160 deg. is sufficiently hot, and not injurious. We have probably all learned that our boots and shoes are more likely to be injured by the heat of the stove when wet, than when dry; but this by no means *proves* that *immersion* in boiling water is injurious, still it offers a hint for experiment.

AGRICOLA.

FOR BLACK LEG OR BLOODY MURRAIN.—Take one pint of salt, one pint and a half of the best vinegar, and drench your ox, cow or calf, but be careful not to let the sick get to water for twelve hours after you have drenched it; and then begin with a half gallon per hour for thirty-six hours, then double the amount every hour till it is well.—PETER DETRICK, Jr., *Bellfontaine, Ohio.*

### TRAINING OF ANIMALS, OR BREAKING OF HEIFERS, UNRULY COWS, &c.

MR. MORTON wishes me to be more particular in describing the process by which vicious cows and horses may be conquered. I took it for granted that everybody would understand it from my description, if they did not know how already. I would advise the adoption of the method given in the November *Farmer* of last year only in extreme cases, where gentler means fail. But as it happens that the farmer has to deal with a variety of dispositions among the various animals under his care, it is well to know *how* to subvert even the wildest and most untractable.

There are three ways by which animals are taught by man to submit to the various uses by which they are adapted to his wants. One is by early training, before they have either strength of *will* or of muscle sufficient to resist—keeping them tame and gentle. In this way, colts, heifers, and steers, may be trained to correct action, without vexation or trouble.

Another manner is to begin the performance of the various duties, whether of labor or the dairy, at the age when their services are required. But partial success sometimes attends this mode; hence the necessity occasionally occurs for using force, which should never be resorted to until the animal has proven vicious beyond the power of the usual methods of subversion.

We will here give our method of breaking wild heifers for the dairy and steers for the yoke. For heifers, if wild, we have a well-fenced yard, containing from one to two square rods, into which we put a heifer with its calf—if we have but one. Here let it remain for several days, feeding it from the hand, petting, and rubbing, as much as convenient, remembering meanwhile that "Love, and love only, is the loan for love;" but if you have no desire to have your animals perform duty except through training or *habit*, strive to fix correct ones, for "Just as the twig is bent," &c. Even in this yard, do not corner your animal, nor, if possible, require help. I have no faith in the wildest heifer needing cornering in such a yard. Keep at them until you can handle and milk them in the middle of the yard, remembering that the first day's success is all important. Where heifers have learned to stand in this little yard, they will usually be quiet anywhere; but it is better to yard them close until they are well acquainted with you, and thoroughly tamed. Of course, dairymen who milk in stables need no such practice.

Where, after adopting the above method, one is found so unruly and vicious as not to submit, but is given to kicking, &c., we would use *force*; and when naught but force *will* conquer, the victory should be so complete that the vanquished party will never seek another trial, or tempt to another combat.

The method described in the November number of the *Farmer* was this: Put a chain or rope around the animal, just back of the fore legs, put in a lever, and twist up, tightening it until evidence is given of submission. No animal has *will* sufficient to endure this torture without becoming submissive; and yet it is more humane than the means usually resorted to. Its power lies in their

inability to resist or even to know from whence their pain arises.

We have broken the wildest old cows we ever saw—those that would run every chance,—by having such a yard as described for the training of heifers. It opened from the milking yard, and after a couple of times, the cow goes in of choice to be milked. Here there is no escaping from you, and ere many weeks the animal, if properly (well) treated, will have lost all desire to escape. It is a great and evident truth, that no animal will seek to escape from one they know and trust. But the habits of animals can never be improved by any save those who have patience to *teach*, and, for the sake of the result, are willing to bear and forbear, without wreaking vengeance on their unreasoning pupils by a discharge of abusive, intemperate language and milking stools, at their trembling delinquent.

In training an animal to either labor or the dairy, care should be taken not to presume upon their knowing already aught of the duties devolving upon them, and possessed with all patience to show yourself the greater reasoner of the two.

We will detail the *training of steers to the yoke* to another number, and only add that we fully believe that no cow has acquired so strong a habit of running, but that the use of the little yard will break her—and none so inveterate a habit of kicking, but that the chain and lever will cure it—and no heifer so wild and fearful, but by proper usage as above she may be taught to stand still for milking, and soon court and enjoy the relief it affords, rather than run and be afraid. But alas! the greatest of all troubles is the training of man, and the effort to induce him to adopt other than stereotyped conservative habits is too frequently attended with failure.

J. SANFIELD.

Amboy, Illinois.

### CONTRACTION OF THE FEET OF HORSES—THE CAUSE AND REMEDY.

THE tendency of a horse's feet, in a healthy condition, are to expand whenever the weight of the body is thrown upon them. Being a very complicated piece of mechanism, they are very easily disarranged, and once out of order are difficult of repair; hence the necessity of preserving them in a sound condition.

CONTRACTION IS CAUSED—1st, By cutting away the bars of the feet, which are the main stays for the support of the quarters. 2d, By (opening the heels as the smith calls it,) cutting away a portion of the frog, in consequence of which the moisture of the frog becomes absorbed, losing its elasticity, and destroying its function, thus exposing the feet to injury by concussion. 3d, By standing upon plank floors. 4th, By improper shoeing.

An ordinary observer will, upon an examination of the common shoe, notice that it inclines from without inwards at the heels, thus forming a concavity for the feet to rest in; the consequence is a lateral resistance to the expansion of the hoofs, when the weight of the animal is thrown upon them. The effects of this resistance is to force the heels together, creating pressure upon the sensitive parts within the horny case; establishing fever by which the moisture of the hoofs are rapidly absorbed, rendering the hoofs hard, brittle, and liable



to crack, and not unfrequently causing corns, navicular joint lameness, bony deposits to be thrown out from the lateral wings or processes of the coffin bones, rendering the animal permanently lame or unsound. These are but few of the bad effects arising from contraction; enough, however, to serve our purpose at present.

**REMEDY.**—Preserve a level bearing by making the shoes perfectly flat on the quarters, so as not to interfere with the expansion of the feet. Should contraction already exist to considerable extent, bevel the shoes slightly outward at the heels, in order to facilitate expansion. Care should be used not to bevel too much, or bulging of the lower part of the hoofs at the quarters will be the result. The shoes should in all cases be forged and not twisted, as is sometimes done to save trouble by the bungling smith. Proper applications, to soften the horny parts and promote elasticity, should also be used. Such preparations are put up in the form of hoof ointments. R. JENNINGS, V. S.

*Prof. of Anatomy in the Veterinary College of Philadelphia, Pa.*

### MOWING MACHINES—ONCE MORE.

**EDITORS GENESEE FARMER:**—During the season of 1858, I improved an opportunity, in reply to Mr. STREET, of Ohio, and several others in different sections of the country, to show the impropriety of the general introduction of Mowing Machines in the State of New York, as the means of saving either labor or money to the farmer.

Since that time it is hoped that all those gentlemen,—including the Small Boy from "Old Lenawee," in Michigan, who undertook to do what the men could not do,—have seen the error of their ways in regard to the saving of labor, by an unwarrantable expenditure of money to procure machinery for their horses to do the mowing and reaping; and we will presume that such is really the case with them, since they have had time to repent of their ambition to get along too fast, and we have heard nothing from them to convince us to the contrary. But not so with your correspondent, Mr. D. A. A. NICHOLS, of Westfield, N. Y.; for while so many others have "kind o' gin out," along with their \$125 Mowing Machines, that could not, as usual, find any shelter during all the winter, he, Mr. N., it would seem, has actually found his machine this spring,—probably by sticking a stake by the side of it in the fall, by which means some trace of it has been preserved through the deep drifted snows of winter, the icy storms of spring, and, we really hope, through ALL the WHITE FROSTS of June, in 1859,—and now comes out in the *Farmer*, greatly rejoiced, with nearly half of the alphabet to his name. All hail to the man of such indomitable courage and perseverance!

It will be remembered that the case of the old fashioned scythe and sickle was pretty well made out, and not much damaged in the last year's controversy; and since we are not willing to take up much room in the columns of the *Farmer* upon the subject at present, we will simply off-set those few facts and figures, set forth recently by the man of alphabetical notoriety, and let the subject rest till a more convenient season. Mr. NICHOLS tells how, out in his country, he and his neighbors have saved their time and strength by cutting their grass and

grain by machinery; and we can easily imagine how there, as in too many other places, the poor laboring man went about, like men of olden time, exclaiming "We are thus idle because no man has hired us."

I say I have neither time nor occasion to enlarge upon the subject now, and will close this article by a simple reflection for the consideration of Mr. NICHOLS, and all others like him, as they have leisure to attend to it, which is: That while he and others were last year, and will be again this year, doing all their haying and harvesting by sending their money away to make richer still a few inventors of labor saving machinery, we were last year, and shall be again this, and the next, and the next, sharing our daily labor, at all seasons of the year, with our honest, hard working neighbor; who labors for his bread, and who depends upon the fruit of that daily labor for his wife and helpless little ones; who will thus be made comfortable, we hope, at a time when too many in our country are not far removed from care and want, and who will long remember the time when, with the company of, and to the rich, ringing music of the sickle and the scythe,

"Away down in the meadow  
They used to make the hay."

Oxford, Chenango Co., N. Y.

E. A. BUNDY.

### WHICH IS THE MOST PROFITABLE BREED OF SHEEP?

**MESSES. EDITORS:**—Your correspondent, Mr. ELLSWORTH, in the March number of the *Farmer*, page 85, takes exception to my remarks on sheep in the January number, and also gives it as his opinion that the first cross is unworthy of attention.

I think Mr. E. mistakes the question, and also misunderstands me. I quite agree with him that the best bred sheep is the best—that in breeding up, as Mr. E. has been doing, the grades that have the most blood will generally be the best—also that good feed and shelter are of great importance.

The question, however, is, not what are the best, but what are the most profitable sheep? As I understand it, what sheep will give the largest profit in the shortest time?

With regard to the efficacy of the first cross, I have often put it to the proof, and am willing to do it again. Let Mr. E. spend a certain sum in the purchase of decent grade ewes; I will buy some poor and superior natives; let us put them all to full bred rams; and if he can make so good interest on his money in one or two years as I can, then I shall acknowledge that the first cross is of no virtue.

I have frequently bred up from common ewes, and have found that the first cross is far better than the second or third, which often disappoints by unexpectedly receiving the bad points of the inferior ancestors. And I should never think of striving to obtain a good flock by breeding up for years from common ewes, when it is so easy to have pure blood on both sides, in which case the object is attained at once. J. C.

**GAPES IN CHICKENS.**—For this disease a correspondent of the *Country Gentleman* says: Take common black pepper, ground; one-half a teaspoonful to a grown hen, and vary the dose according to the age of the patient.

### TO PREVENT RATS, MICE, AND INSECTS, WORKING IN THE GRANERY.

THESE live pests are a great eye-sore to all farmers and grain dealers, and a little care and trouble will keep them away, and at the same time the remedy will be a benefit to most kinds of coarse grain. For the benefit of those who would like to keep grain all summer, or a year, I will, in a brief manner, give the course to pursue, that the loss by these little thieves may be comparatively small.

After the grain is in the bin and made level and smooth, put on the top about four quarts of fresh slaked lime; let this be spread evenly over the grain. This will keep out rats and mice in a bin that contains one hundred bushels. This lime must be slaked so it looks like flour fresh from the miller's bolt. If the lime is left upon the surface of the grain, the rats and mice will not skip and play there a great deal before they will have to sneeze some; and, further than this, there is always enough grease or oily substance remaining upon the feet of rats and mice to make the lime adhere to them. After they have been once into it they will not return again the second time. You may likewise show this lime about their haunts with much benefit; but if insects are to be kept out, you must mix the lime with the grain as you put it in the bin, and shovel it through and through until it is mixed thoroughly; then place on the top four quarts of the slaked lime. Four quarts of unslaked lime is sufficient for one hundred bushels of grain; and it will do no hurt in any kinds of grain if it is never taken out, for it is an alkali which is good for bots in horses. It will neutralize the acid in hog swill, and prevent their vomiting; and, in fact, this small quantity of lime would be a benefit to most kinds of stock if it should be ground with the grain.

If you apply the lime to wheat, buckwheat and corn, or the like, and do not want it in the grain, get out your fanning mill and run it through.

To slake lime perfectly, put it into a tight, stout vessel and pour on boiling water, about half as much water as lime in bulk; cover up the lime as soon as the water is in, and leave it until cool. Good unslaked lime will more than double its dimensions when well slaked.

A. L. SMITH.

### STONE FENCES.

EDITORS GENESEE FARMER:—I notice several of our correspondents have written on this subject, and with your permission I will explain the manner in which we construct stone fences "down east;" not that ours is a new or superior method; for with its superiority must often yield to expediency.

Many of our farms are abundantly supplied with "rough material" for wall. Indeed, I have heard of a man who said he had an acre on which were stone enough to cover it with wall four feet high; and then, you know, some men *will brag*. However much you may doubt the veracity of the above assertion, be assured we are not obliged to use wood to help build our *stone fences*. But I wander from the subject.

We build double, half-double, and single wall, without trenching. Good double wall is made four feet on bottom, two feet on top, and five feet high.

Some are built three feet on bottom, one and one-half feet on top, and four feet high, depending of course upon the taste and means of the builder. Half-double wall is made two feet at bottom, one foot and a half at two and a half feet from bottom, and from thence built singly to the required height—four, or four and a half feet.

The size of single wall depends upon the size of stone—the largest being laid at the bottom, then the next in size, and so on in regular gradation. Such a wall makes as economical a fence as we can build, particularly for pastures and land not tilled, as it can be built cheaper, and is more easily repaired than double wall. For a sheep pasture, it should be top-poled. By the way, in top-poling a double wall for a sheep pasture, the stakes on the pasture side of the wall should be driven into the ground almost perpendicularly, so as to bring the top-pole even with the inner top edge of the wall.

In double wall, all stones that are long enough should be placed crosswise of the wall for "binders." Double wall should be "bound" at least twice in five feet, including the coping. Half-double should be "bound" at two and a half feet, or where the single commences. Round stone should not be used. Small, roundish, field stone should never be put into the middle of a wall; for, by means of the frost, they act as wedges to press the wall apart. In building double wall, some let the stones slope toward the centre of the wall. They should be placed level. Wall "faced" on one side can be built by letting the long stones or "binders" project on the opposite side; but to build "double-faced" wall, requires considerable care and use of the sledge.

A thoroughly-constructed stone wall will last fifteen or twenty years with but few repairs.

Belfast, Me., June, 1859.

G. E. BRACKETT.

### ONE FARM IN WESTERN VIRGINIA.

MESSRS. EDITORS:—For the benefit of some of your subscribers, who have written me on the subject, I propose giving a short but plain description of our country. The country is generally mountainous, or rather hilly. A good portion, however, is good farming land. Some farms are situated on the streams and are very rich, and of a sandy loam. Other farms, situated on upland, are more of a clay soil with, now and then a gravelly ridge. The land is generally free from stone, excepting rocky bluffs or some particular spots.—Wheat and Indian corn are the main products of the country. Irish potatoes grow well. Turnips grow in abundance. Clover grows well, yet timothy is the standard grass in this section of country. Oats have been considered a very sure and bountiful crop, but it failed last year owing to the rust.

There has been but very little snow this winter, so little that plowing could be done at almost any time. There is very little time in winter but what work can be done on the farm to good advantage, and very comfortably, too. The summers are very temperate.

Farm lands sell according to location, quality, the improvement there is on them, &c. There is now quite a stir in the land market. Farms may be bought to suit almost any purchaser from 100 to 200, 300 or 500 acres, and ranging from \$8 to \$25 per acre. It is rather a new country, and farms

of 100 acres with from 25 to 50 acres improved and comfortable dwellings can be had for from \$6 to \$10 per acre, and a little farther south land is still cheaper. Ellenboro is our marketing place, where every kind of farm produce brings a good price.

The country is well timbered, white oak, hickory, sugar maple, walnut, black oak, and beautiful poplar timber in abundance, and this is considered one of the very healthiest countries. I have lived in the country fifteen years, and during that time there has been very little sickness; and although this is a slave state, there are not over thirty colored persons in this county. We are in what we call Western Virginia, twenty miles from the Ohio river, about sixty miles below Wheeling, and thirty-five miles from Marietta. There are five excellent flouring mills within four miles of us, and the country is well supplied with saw mills. Two steam mills within three miles of us continually sending off flour to the Baltimore market. Should persons wishing to move here wish to make any further inquiry concerning our country, I will cheerfully furnish them with all the information they require either through the columns of the *Farmer*, or personally, by letter.

Ritchie Court House, Virginia.

J. M. WOODS.

#### FEEDING CALVES—ONCE MORE.

EDITORS GENESEE FARMER:—Believing that further controversy between Mr. MAYNARD and myself on calf feeding, will not be interesting to your readers, I shall only trouble you with a line or two on the subject. If Mr. M. thinks he can raise better (or as good) calves with his method as I can with mine, why does he not say so? I think I can not. I have seen calves raised with all sorts of feeding, for twenty-five years past, in England and Canada, and therefore ought to know something about it; and I can inform Mr. M. that I find no difficulty in carrying out the plan which so much astonishes him. But Mr. M. has misconstrued my statements, as any candid reader may see, in paragraphs four, five, and seven, of his last letter; hence the difficulty he has in understanding them.

But as Mr. M. truly thinks the game is not worth the ammunition, I purpose to carry it no further, but will state, for his information, that my name and post office address is, JOSHUA NORMAN, Eden Mills, C. W., where I shall be most happy to receive a letter from him at any time on this important subject, and if ever he does come this way I hope he will call and see the calves.

J. N.

Nassauvora, C. W., June 6th, 1859.

P. S.—In a communication I sent you as answers to some of the inquiries of J. S., and published in the June number, page 181, the first word in the last line should be *weeks* instead of months.

POULTRY.—A correspondent says it does not pay to keep poultry in large numbers on a farm, as they require too much attending to if kept confined in a yard; and if not, they range over the farm, doing a great deal of damage at seed time and harvest. He says a small number kept close, and well supplied with animal food to keep them constantly laying, will pay best. The rule should be to keep enough to pick up food that would otherwise be wasted.

#### HOW TO RUIN AN AGRICULTURAL SOCIETY.

The dilapidated condition of very many of our County Agricultural Societies may furnish profitable food for reflection—both to those who have run them down, and to those who wish to build them up. And it may even be well for *some* who do not desire to break down these institutions, to know how the thing *can be done!* Well; here are some things that the writer thinks have had, or may have, a tendency that way:

1. Charging more for membership on the day of the fair, than is required if paid earlier. This can not fail to create dissatisfaction—and a dissatisfied member, if to be retained at all, can never be an efficient laborer in the cause. Moreover, the rule can not be uniformly enforced. *One* (who understands the game) will go to a *town committee man* and pay the usual fee, *even* on the moment of making his entry,—while *another*, walking up to the *higher* authority, has to pay double. Such transactions will *leak out*—and, of course, must give honest men a bad impression of the managers. Thus, dissatisfaction will be made general.

2. Take advantage of any *mistake* a member may make, such as getting his entry into the wrong class,—entrusting his member fee to an agent who fails to have it credited *in time*,—leaving his certificate of membership at home,—being unable to get his article or animal on the ground at the moment,—or any other trifle that *might* shut him out from competing for the Society's premiums.

3. Select judges who will favor the *locality* where the fair is held.

4. Go largely into permanent fixtures; and, if you can not pay for them out of the funds furnished by the state, just repudiate the premiums you have awarded.

5. Raise all the funds you can by life memberships.

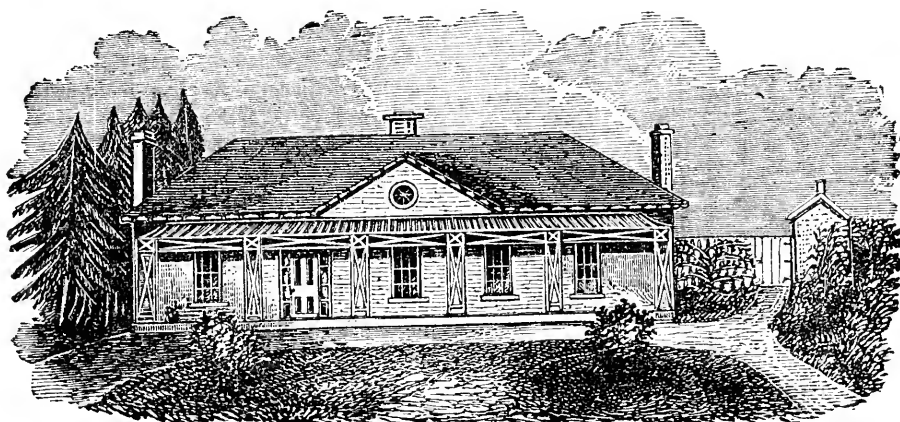
6. If funds grow short, double your membership fee.

7. If this don't do the thing up, conclude to suspend *offering* premiums. And, finally, if you are aware your show is a failure,

8. Admit no soul within your grounds until you get the dollar! Those who have been *taken in* will then be ashamed to expose the *sell*, and your empty tent will be thronged for this time, if not for next!

†† L. S. ††

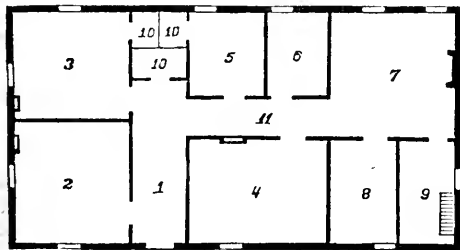
FEED THE LAND AND IT WILL FEED YOU.—The *Homestead* well observes, "The true economy with land is to treat it as you would a laborer, from whom you wanted the most work. Let it be well fed, and there is much less danger of over feeding, than there is in case of men or animals. No more should be cultivated than can be stuffed with a full supply of plant food. The sun and atmosphere are all ready to give you eighty bushels of corn to the acre, and it will not cost a penny more to draw upon them for the necessary amount of heat, light, carbon, and moisture to make this quantity of grain, than to make twenty bushels. Here is an inexhaustible store house of riches, and a well fed soil is the key to unlock its treasures. Give to the soil generously and persistently, and it will give unto you 'good measure, pressed down and running over.'"



DESIGN FOR A FARM HOUSE.

## A FARM HOUSE.

MESSRS. EDITORS:—The above is an elevation and plan of a plain but roomy house, such a one as will suit the farmer as well as the gentleman. It is built of brick, on stone foundations; the walls are one brick thick, strapped and lathed inside, which is better and more comfortable than two bricks thick, and plastered on the bare wall. The rooms are all on one floor, and lofty and well ventilated; the center chimney being a double flue, one flue for the stove pipes from the various center rooms and hall, and the other flue having an adjustable ventilator opening into the middle passage. The building seen on the right is a frame 60 by 14, containing at one end a bed-room for laborers, 12 by 12; then a summer kitchen, 12 by 18, fitted with a large boiler, and used in winter for cooking food for stock; the remaining 30 feet being used as a wood-shed.



GROUND PLAN.

DESCRIPTION OF PLAN.—1, hall, 6 by 22; 2, parlor, 17 by 15; 3, bed-room, 15 by 14; 4, living room, 20 by 14; 5, 6, and 8, bed-rooms; 7, kitchen, 17 by 17; 9, pantry, 6 by 14: 10, 10, 10, closets; 11, passage, 4 feet wide, with an open arch to hall, and separated from the kitchen by a glass door. There is a cellar and milk-room under 7, 8, and 9, stone walled, with cement floor, and entered from the pantry by a staircase with trap door, and from the outside by a staircase close beside the back door, built over, and with double doors. The rooms over the cellar could have the ceilings lower, if desired, which would give a loft over them for

ripening fruit, and accessible by a ladder through trap door in the kitchen ceiling.

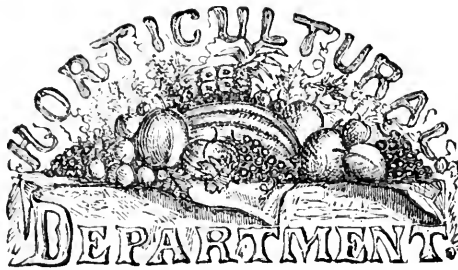
This design is a slight alteration in the plan of the residence of Dr. MACKELCAN, Ancaster, C. W., which was erected in 1853, of the very best materials, and cost \$1,800, including venetian blinds and verandah. D. F.

EXCELLENT ADVICE TO FARMERS.—At a recent term of the Circuit Court, in Chautauque county, at which a number of young men were convicted of crime and sentenced to the Western House of Refuge in this city, or to the State Prison at Auburn, the Hon. R. P. MARVIN gave the spectators the following excellent advice, which cannot be too often repeated or too earnestly put in practice. Said his Honor:

Before sentencing these boys, I have a few words to say to the men of Chautauque county, the agriculturists in particular, some of whom are here to-day, looking on at the saddest scene it has been my lot to see in this county; so many boys, farmers' sons, too, all of them, to be sent to the Penitentiary for stealing and burglary.

Farmers of Chautauque county, when your boys get large enough to work, find work for them at home. On no account let them go into the village to work; nor let them go to teaming. I care not if they can get \$50 per month; it will be a dead loss. They will just as surely follow the example of these boys now before you, as they leave the sacred and restraining influences of home. *Give them plenty of good books and papers, make home pleasant, and keep them there until they are of age and have the wisdom to resist the temptation of high wages on the road or in a tavern, but obtained at the expense of good character.*

It is never profitable to breed inferior animals of any kind. If a man is not able to purchase improved or blooded stock, he should not hesitate to do the best he may with such as he has. Seek to develop and combine the good qualities of all in their breeding.



### HORTICULTURAL NOTES FOR THE MONTH

**THINNING FRUIT.**—Dwarf pear trees are loaded with fruit, and will require much thinning. It is a great mistake to let the trees bear all they will. The fruit is small, and poor in quality, and the tree so weakened that it will bear very little next year. Many trees we have seen this summer will require the removal of two-thirds of the fruit. Cut or pinch out the smaller and imperfect fruit first, but do not spare even those that are large and fine when too thick. Let the fruit be evenly distributed on the tree and on the different branches. Dwarf pears set out last fall or this spring will frequently set fruit, but it should not be allowed to mature, or at least not more than two or three specimens on a tree.

The same remarks will apply to dwarf apple trees. All dwarfed trees have a tendency to overbear and exhaust themselves. But though of greater importance, the process of thinning fruit should not be confined to dwarf trees. It is very beneficial in all cases where trees are heavily loaded. The reason why apple trees so generally bear fruit only on alternate years, is that they are allowed to mature such a large crop one year that the trees are exhausted and will not bear the next year. If half the crop was removed, other things being the same, they would bear every year.

**SUMMER PRUNING** is too much neglected. Pinch off the ends of too vigorous and irregular shoots, and train the tree into good shape. It promotes fruitfulness, and saves the necessity of much winter pruning. The shoots of grape vines, if not already done, should be pinched off, leaving two or three leaves above the bunch. If attacked with mildew, apply sulphur immediately.

**STRAWBERRY BEDS**, as soon as the fruit is off, should receive attention. Keep down the weeds and cut off the runners, unless they are required to form new beds. If the system of "culture in alternate strips" is adopted, the runners should be thinned out when too thick, and kept free from weeds, and allowed to get well rooted before the

old plants are spaded under, say about the middle of August.

**LAYERING** is one of the best methods of propagating many ornamental shrubs, roses, grape vines, &c. Spade and prepare the ground around the plant: bend down some of the shoots of new wood and fasten them in the ground with a peg. If a slit be made half through the shoot, just below a bud, and extending an inch or so above the bud, it will root sooner and more freely. The top of the layered shoot should be put in an erect position above the ground, so that the slit made below will be kept open; the sap is thus arrested at the cut part, and goes to form roots.

**DAHLIAS**, and all tall-growing plants, should be staked and carefully tied up, or they will break down when their heads are heavy with bloom.

**KEEP THE GROUND CLEAN.**—Weeds rob the soil of moisture and the food of more useful plants—a trite truth better expressed by the great dramatist.

"Go root away  
The noisome weeds, that without profit suck  
The soil's fertility from wholesome flowers."

**LATE PEAS** may be sown on good, deep, rich soil. *Dwarf Blue Imperial* and *Knight's Dwarf Marrow* are good varieties for late crop.

**DWARF BEANS** and **SWEET CORN** may still be planted; and also the seeds of cucumbers for pickling.

**CELERY.**—If not already done, prepare trenches for celery. Dig the trenches eighteen inches deep fill in with six or eight inches of *well-rotted* manure, and cover with four or five inches of rich surface soil. Set out the plants in a single row, about a foot apart in the trenches. The London gardeners sometimes make the trenches three or four feet wide, and plant three or four rows in each trench. It involves too much trouble, however, in earthing up to be practical in this country, unless it is impossible otherwise to obtain sufficient space.

The plant grows very slowly at first, and will need watering if the weather is dry. Stir the soil with the hoe, and apply the water a few inches from the plants so as to avoid washing the earth into the hearts of the celery. In this, as in all other cases, give a *thorough* soaking, so that the water will penetrate to the roots. Slight waterings are generally worse than useless.

**CABBAGES** for the main crop may now be set out. Grubs are apt to be very destructive to them in the early part of this month. A correspondent says: "If the roots, at the time of transplanting, are dipped in fish oil and then in plaster of Paris it will not only annoy the worms and keep them

away, but also prove beneficial as a manure. By the middle of July grub worms will be harmless, and this is the best time for transplanting late cabbages."

MUSTARD, CRESS, and RADISHES, may still be sown, and will do well on the north side of a board fence.

MELONS should be thinned out to two or three in each hill; draw earth from time to time around the hills and about the roots of the plants. As soon as the plants have spread into branches, stop them by pinching off the top of the first runner bud. This will strengthen the plants, and cause them to fruit early. After which, keep the ground clear from weeds by frequent hoeing. If you wish to save the seed, care must be taken not to plant the different sorts near each other, or cucumbers, squashes, and gourds. The impregnation of the blossoms is an imperative process in melon-growing. The female flowers are known by the appearance of the embryo fruit at their base. The best situated of these should be selected, and, after carefully divesting the male blossom of its corolla, its farina should be brought into contact with the center of the female flower, during the heat of the day, when the flowers are quite dry and the sun at its greatest power. The operation should commence when from six to ten female flowers are found on the plant; and when it is perceived that four fruit is secured on each plant, which will be known by the rapid swelling of the embryo fruit, the whole of the blossoms, male and female, should be cut off as they appear, that the strength of the plant may be directed entirely to the formation of the fruit. The production of unnecessary blossoms weakens the plant the same as the production of fruit. The shoots on which the fruit is set and swelling should be pinched off three or four eyes above the fruit. Stop all lateral shoots, from time to time, to prevent confusion, as well as cut out all coarse shoots which are not wanted. The greatest care should be taken of the foliage, exposing it as much as possible to the sun. Watering is an important matter, both as regards the roots and foliage, and should be applied very gently with a syringe, more resembling a copious dew than a shower from a watering pot. Where the melons are grown on the surface of the soil, care should be taken that a piece of tile, slate, or a shingle, be placed under each melon as soon as it has begun to swell, to prevent its damping and rotting off; and as the fruit increases in size, it may be elevated above the leaves, that it may fully enjoy the light and air. Until the full complement of fruit is

fairly set and beginning to swell, the branches may be kept thin and the plants not excited by liquid manure; but after that the plants may be allowed greater latitude, and be more excited in their growth.

#### WORK IN THE FLOWER GARDEN, &C., FOR JULY

GREEN-HOUSE plants will need daily care at this time, and may be watered every evening in dry weather. Geraniums, that have grown large and unwieldy, may be pruned. Garden roses, having done flowering for the season, may now be pruned. Cut out all old and exhausted wood, and shorten such shoots as have flowered, to a good, fresh, strong bud. All wood that grows after this pruning will ripen perfectly, and produce large flowers the next season. The flower garden should be kept neat and clean, and all weeds extirpated by pulling by hand, and tall-growing plants and runners neatly tied to stakes. Watering is always beneficial in dry weather, if done in the evening, and the shrubs and plants thoroughly drenched about the roots. Carnations, pinks, and such plants as are propagated by layers, should be layered this month, if new plants are desired.

Many kinds of cuttings, as geraniums, roses, and exotic shrubs, may still be planted with success.

Such bulbous roots in pots, whose foliage has withered, may be kept dry until the period of re-germination; others may be taken up as soon as ripe, and dried for autumn planting.

Asters, balsams, &c., grown in frames, may now be set out to fill up vacant places in the border, where spring-flowering bulbs have gone out of bloom.

Dahlias require to be staked up and kept pruned of all superfluous shoots.

Hollyhocks are a beautiful ornament in a garden, where care is taken in selecting the sorts and grouping them together. They are better to be kept tied up to stout stakes and have a liberal watering, as also should pansies.

HERBACEOUS PLANTS.—HOVEY'S *Magazine of Horticulture* speaks a good word for the too much neglected herbaceous plants, many of the old favorites of which it says are disappearing from our gardens, to make room for verbenas, scarlet geraniums, and other showy flowers.

"Where are the stately foxgloves, with their tall spikes of nodding bells, displaying their leopard-like spotting, in which the bee

— "makes her sweet music?"

These are now rarely seen, though extremely showy; with the improvement which has been



made in the origination of new sorts, they are truly elegant.

"The Columbine (*Aquilegia*) too, in its variety of colors, is becoming more rare every year; and our beautiful native species, *A. Canadensis*, whose pendant scarlet and yellow flowers enliven many a hill-side in June, has ever been scarce in cultivated grounds.

"The Sweet Rocket, (*Hesperis*) except in its old single state, which, though pretty, does not compare with the double, is not often seen: the double is one of the sweetest of herbaceous plants, and as beautiful as it is fragrant. Canterbury bells, ragged robin, lychnis, monkshood, honesty, &c., are more of the old favorites.

"These we name as a few of such as were once common, indeed almost the only kinds in some gardens, but now rarely seen, only as we recede from the places where fashion holds her sway, in the neighborhood of splendid villas, to the cottage in the country, where, tended by fair hands, yet happily ignorant of the *Whitlavia*, *Euclidium*, and similar hard named and far less beautiful flowers, they flourish and display their familiar forms and colors.

"It is the fault that we overlook the smaller, more delicate, and exquisitely beautiful species and varieties in our eager desire for the large and showy; some of them common, but the greater part almost unknown in our American gardens, and never seen only in the grounds of the true lover of elegant flowers. These are the *Hepaticas* (*Anemone*), *Gentians*, *Epimediums*, *Violets*, *Fair Maids of France* (*Ranunculus*), *Double Primroses*, *Betonicas*, &c., and our own native plants, *Asclepias tuberosa*, *Trilliums*, *Dodecantheons*, *Spigelia*, *Anemone thalictroides*, *Cypripediums*, &c. All or any of these, added to the more popular and familiar kinds, render the garden doubly attractive.

"Let the garden be, as it easily may, what the poet describes it:

"From sapling trees, with lucid foliage crowned,  
Gay lights and shadows trembled on the ground;  
Up the tall stems luxuriant creepers run,  
To hang their silver blossoms in the sun;  
Deep velvet verdure clad the turf beneath,  
Where trodden flowers their richest odor breathe;  
O'er all, the bees with murmuring music flew  
From bell to bell to sip the honeyed dew."

"We close with a few hints as to their cultivation. Herbaceous plants, in general, are of the simplest treatment. Most of them will grow in any common garden soil, slightly enriched by old manure, or, what is better, leaf mould. Every two years they should be taken up, carefully di-

vided and reset; such quick-growing sorts as phloxes, asters, rudbeckias, veronicas, larkspurs, &c., should have more room than the others, and when coming into bloom have their stems tied up to neat stakes. If the ground is trenched they will grow the better, though this is not absolutely necessary. Many of them, if headed down directly they are done blooming, will give a succession of flowers later in the season; such as do not, should have their old stems cut away. The biennials, such as foxgloves, canterbury bells,

sweet williams, hollyhocks, &c., should be raised from seed every year, in June, or as late as August, though they will make stronger plants if sown early.

"The more delicate kinds require more careful management, and are particular as to soil. The *Hepaticas*, *Anemones*, *Dodecantheons*, *Epimediums*, *Trilliums*, &c., like a peaty earth, and a half shady situation, where they not only remain in bloom a much longer time, but are healthier and more robust plants; indeed, under the same cultivation of the grosser growing kinds, they often die out, which accounts for their being more rare. They will, however, well repay any care that may be bestowed upon them.

"October is the best time to divide and reset herbaceous plants; they get well established in the ground before winter."

#### GOLDEN-TWIGGED LINDEN OR LIME TREE.

In the *Genesee Farmer* for 1857, p. 94, we gave a cut and description of the European Linden. We need add nothing to what was then said of its value and beauty as a shade and ornamental tree. We have now the pleasure of presenting our readers with a cut of the golden-twigg'd European Lime tree (*Tilia aurea*). It differs from the former in the yellowness of its twigs, and in its less vigorous growth. It is a beautiful tree anywhere, but more especially on a lawn, where the color of its branches forms a pleasing contrast. The specimen from which our cut is taken is 10 feet high. We need hardly say that our common basswood is a lime or linden tree. In some parts of England it is called "bast," because ropes are made from its bark. It received its modern name Lime or Linden in honor of LINNÆUS, the celebrated Swedish botanist.—There are few trees so fragrant as the European Lime, and none more beautiful as a shade tree.



GOLDEN-TWIGGED LINDEN.





AMERICAN LIVE OAK.

**AMERICAN LIVE OAK.**

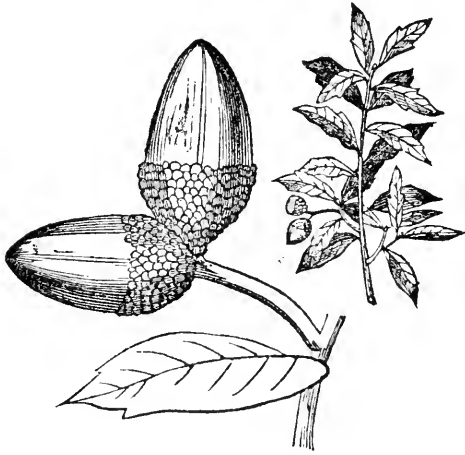
THE Green or Live Oak (*Quercus virens*) is confined to the maritime parts of the Southern States. Its most northern boundary is Norfolk, in Virginia, from whence it spreads along the coast for a distance of 1500 or 1800 miles, stretching beyond the mouth of the Mississippi. The sea air seems essential to its existence, for it is rarely found in forests on the main land, and never, it is believed, more than from 15 to 20 miles from the sea. STUART, in his *Three Years in North America*, thus speaks of the Live Oak, in describing his journey from Washington to Charleston: "On this day's journey, I first saw, and in great numbers, the most valuable of American trees, the *Quercus virens*, the most durable of oaks. It flourishes most on lands adjacent to salt water. It is almost as heavy as lignum vitæ (*Guaiacum officinale*). Its trunk is generally not long; but its crooked branches frequently spread over more than a quarter of an acre of ground. The wood of this tree is almost incorruptible. It was on account of the abundance of this tree in Florida, fit for building ships of war,

that the Americans showed the great anxiety, which was at last gratified in 1819, to add Florida to their extensive territory, and which has led the general government, since its acquirement, to lay out very large sums in the preservation and establishment of live oak plantations in Florida."

According to MICHAUX, the live oak is much stronger and comparatively more durable than even the white oak, and is more esteemed for ship building than any other wood in the United States.

CATESBY, in his *Natural History of Carolina*, describes it as a pyramidal tree 40 feet high, in the salt marshes of Carolina. He adds that the acorns are remarkably sweet, and were used by the Indians to thicken their venison soup, and for expressing an oil which was very much like the oil of sweet almonds. The acorns are of an elongated oval form, nearly black, contained in greyish cups. They are very abundant, and germinate with such ease that, if the weather is wet at the season of maturity, many acorns are found on the trees with the radicle unfolded.

As shown in our engraving, the live oak forms a



LEAVES AND FRUIT OF THE LIVE OAK.

beautiful park tree in the Southern States, growing about 40 feet high, with a rather wide and low head. Its thick oval leaves are evergreen, and it is to be regretted that this valuable tree will not stand our northern winters.

#### THE WILD FLOWERS OF ENGLAND.\*

This is a very beautiful, very truthful, and very useful little book, and we fully believe, as stated in the preface to this new edition, that "many readers perceived new beauties, and acquired new associations which made their meeting with our favorite field flowers more interesting, and more joyous," since they perused its pages. That our readers may judge for themselves, we extract the following:

##### THE FORGET-ME-NOT.

"That name, it speaks in accents dear  
Of love, and hope, and joy, and fear;  
It softly tells an absent friend  
That links of love should never rend;  
Its whispers waft on swelling breeze,  
O'er hill, and dale, by land and seas,  
Forget-me-not!

"Gem of the rill! we love to greet  
Thy blossoms smiling at our feet.  
We fancy to thy flow'ret given  
A semblance of the azure heaven;  
And deem thine eye of gold to be  
The star that gleams so brilliantly."

—*Bouquet des Souvenirs.*

"The romantic story with which the Forget-me-not is connected has made it known to thousands who, perhaps, would never otherwise have become acquainted with its existence. Independent, however, of the fame thus attached to it, when once seen and noticed, its own beauty would gain for it a place in the memory. The bright blue of the flowers, and their rich golden centres, render them individually an object to be admired; and as they gradually unfold themselves at the curled extremity

\*THE WILD FLOWERS OF ENGLAND, or FAVORITE FIELD FLOWERS popularly described. By the Rev. R. TYAS, M. A., &c. With twelve highly-colored groups of flowers by J. ANDREWS, F. H. S. London: HOULSTON & WRIGHT.

of the stem, where they are arranged in two rows, and alternately, on foot-stalks, their appearance is truly beautiful; but when the plants in bloom are so numerous as to form a sort of fringe on the margin of a rivulet, as we have seen them, words cannot convey an adequate idea of the effect. They are, in truth, very ornamental, and cannot fail to win the favor of every rambler who strolls where is seen,

'By rivulet, or spring, or wet road-side,  
That blue and bright-eyed flow-ret of the brook,  
Hope's gentle gem, the sweet 'Forget-me-not.'

"The incident already referred to as having rendered this flower so well known, and which, we are told, gave rise to the present name, is said to have occurred on the banks of the Danube. Two betrothed lovers were strolling along, on a pleasant summer's evening in the delightful month of June, engaged in agreeable and affectionate conversation, when they observed the pretty flower of the Water Scorpion Grass apparently floating on the water. The bride elect looked upon the flower with admiration, and, supposing it to be detached, regarded it as being carried to destruction; her lover, regretting its fate, and wishing to preserve it, was induced to jump into the river; but as he seized the flower, he sunk beneath the stream; making a final effort, he threw the flower on the bank, repeating, as he was sinking for the last time, the words, 'Vergiss mich nicht.' Since this event, the Germans have called the flower *Vergissmännchen*, and we, translating the word, Forget-me-not.

"The circumstance whence this flower derived its name, and the name itself, have made it a favorite with German poets. GOETHE, in his 'Lay of the Imprisoned Knight,' represents it to be the choice flower of the lady whose praises are rehearsed. We insert Lord F. LEVESON GOWER'S translation of these lines:

'Ah! well I know the loveliest flower,  
The fairest of the fair,  
Of all that deck my lady's bower,  
Or bind her floating hair.

'Not on the mountain's shelving side,  
Nor in the cultivated ground,  
Nor in the garden's painted pride,  
The flower I seek is found.

'Where time on sorrow's page of gloom  
Has fixed his envious lot,  
Or swept the record from the tomb,  
It says, Forget-me-not.

'And this is still the loveliest flower,  
The fairest of the fair,  
Of all that deck my lady's bower,  
Or bind her floating hair.

LIMA BEANS.—Our esteemed correspondent, J. C. ADAMS, of Allegany Co., N. Y., writes us that he finds it better not to pole Lima beans. He says: "When they have nothing to cling to or climb upon, they bloom and set upon the main stalks, the same as string beans. I have raised both the Lima and Quail-head beans without poles with marked success." Another correspondent, E. P. B., says: "It is a good plan to pinch off the ends of the vines when they have reached the top of the pole, as otherwise they continue growing until killed by the frost, thus weakening the vines, while the topmost portions seldom amount to much."

## A CHEAP COLD GRAPERY.

SSRS. EDITORS:—In answer to your request of February number, I send you a description of a cold grapery. It is 16 ft. long, 12 ft. wide, 8 ft. high in front, and 8 ft. high at the back. The shutters are firmly fixed, and it is ventilated by shutters at the front and rear nearly one-half the length of the building. I had the advantage of a garden wall 4 ft. high at one end and the rear, which saved some of the lumber and about a day's work in constructing the vinery, as the frame is the same, only 4 ft. high. I put no labor on it myself, hence I do not pay for every turn done at it, which enabled me to know the exact expense of its construction. The lumber I took from the wood pile, but allowed for it in my account as it would cost to get an equal quality at the lumber yard. The border was 2½ ft. deep all of the inside and 4 ft. outside and filled up with compost, sods, rubbish, &c. It cost but little, and made a very rich border. The vines cost me \$3, which I reckon in account. I have lost the account of the items for lumber, putty, nails, &c.; otherwise I would give you the account. The carpenter was employed 12 days, at 25 cts. per day; the digging and filling 6 days, at 25 cts. per day. The whole cost, boarding and all, was a few cents less than \$33.

After the grapes are set, and the weather is settled, I generally have the shutters open, in front and back, day and night, for months together; and I pay no more attention to it than to keep the border moist, and once a week syringe the vines with soap and floured sulphur, drenching them completely.

And that my vinery is exactly described in your *Rural Annual*, except that I have the posts mortised in the sill instead of planted in the ground, the plates mortised on the top of posts. I used 9 glass, and have five courses of glass between the rafters. (See a description in *Thomas's Fruit Gardener* for the roof.) I also find the true method of ventilating a cold grapery given in the last *Rural Annual*; but instead of nailing the shutters, I use them, to keep servants from shutting or closing them too much and too long, I would advise every one to attend to his own vinery, and he will soon see the pleasure in it that he will in no wise abandon, and I would advise him to share with him. B. F. B.

Lightstown, Pa., March, 1859.

AS TAR.—The value of gas tar judiciously applied for the prevention of insect attacks on fruits and vegetables has been admitted for years. Like many other valuable applications, many persons use it without skill, and being of a very caustic nature, it injured their trees. Experience has shown a safe method of applying it, which is recommended by many skillful cultivators who have used it. The plan is to smear rags with the tar, and hang them in the branches of trees likely to be infested with the circlio. We are assured that we have checked their depredations on the plum to a sensible extent this season. Gas tar is successfully employed on other vegetables to keep off insects, as its odor is very offensive to them. A correspondent has kindly offered to furnish his method of applying it to squashes, cucumbers, &c.—*Country Gentleman*.

## DECEPTION IN PRACTICE.

MANY men, at this present age of the world, are studying deception continually, and a few can practice it very well. Among these practitioners may be found the venders of fruit trees, vines, and garden seeds. How long they will continue to practice this deception upon the unsuspecting farmers and gardeners, is yet to be seen; but enough has been done to justify the deceived purchaser in taking a stand in self-defence, for when old established salesmen and firms get down in practice of obtaining a few shillings under false pretences, like they have the past season, it is then time the unsuspecting farmer is put upon his guard.

Having been deceived and provoked by these deceivers, in times past, it is natural I should feel a little sore over it; and I have concluded to keep my eyes open the next season, to see and keep an account of these deceptions, and if I find them on the increase I shall present a list of the men and their articles for publication in the next January number of the *Genesee Farmer*. But I suppose when brought before the public, individually, they will try hard to plead justification by the way of mistakes, &c.; but the deceived ones will find in seven cases out of ten the deception is in some new, costly and scarce article. For example: you purchase a pound of what is represented to be cow horn turnip seed, and after great preparation of ground, &c., they turn out to be a poor, insignificant radish. This would be an intended mistake, without doubt; but if you should purchase a pound of radish or mustard seed and it should turn out to be cow horn turnip, then it would probably be a mistake.

But, kind reader, you will not be often deceived in this way. Now, in the coming season, Delaware and Rebecca grapes will be in great demand, and how many will get deceived I know not; but if all would lay their case before the public by the way of some agricultural paper, these deceivers would be headed off, for a paper that has a wide circulation is a great tell tale. A. L. SMITH.

EUCROIDE BARTONIOIDES.—A fine addition among yellow-flowering plants is *Eucroide Bartonoides*. It can be treated as an annual, flowering the end of summer and fall months, and may be lifted before frost, and placed in a warm window or green-house, and it will flower all winter. The seed is cheap, and may be bought at the principal seed stores. It can be grown by every cottager. \*

We are not acquainted with the plant here mentioned, and do not think the seed is commonly kept for sale by seedsmen in this vicinity. The name for it by Loudon is *Microsperma bartonioides*. On examining the seed catalogue of Hovey & Co., of Boston, we find this seed advertised at ten cents per package. We thank our correspondent for alluding to it, and should be happy to hear more from him in reference to it.

LADY BUGS feed upon the aphid which is such a pest in gardens and green-houses. They should, therefore, never be destroyed.

## GROWING A PEACH NURSERY.

MESSEES. EDITORS:—In selecting pits for planting a nursery, I prefer those from healthy seedling trees and fully ripened fruit, free from any contamination. The pits should be placed in the ground early in autumn, or even later, slightly covered with earth, so as to let them freeze during the cold weather of winter, in order to burst the shell containing the pit, which should be taken up in April for planting in the nursery. Such pits as are not opened by frost should be placed under the hammer for that purpose.

The ground being prepared the same as for corn, furrows four feet apart are made for planting the pits, which are dropped from seven to ten inches apart—the distance required for trees in rows.

Much cultivation by hoeing is required during the first summer, in order to give the trees growth enough for inoculating, which is done in August and September. Care is required in selecting buds for inoculating. None should be used but from healthy trees.

Early the following spring, as the buds begin to put out, the tops of the inoculated trees are cut off one inch above the bud, which grows this season, with proper cultivation, to the height of from three and a half to over six feet, ready for orchard planting the same autumn or following spring. Too much pruning is injurious to the tree during its growth in the nursery the second summer. More is required at the time of transplanting into the orchard, of which I will give further accounts in another number.

G. H. LARSON, M. D.

*Sergeantville, New Jersey.*

**SPECIFIC FOR BUGS ON VINES.**—Having seen by your paper that many truckers in your section are anxious to ascertain a simple and sure remedy to destroy bugs on squashes, cucumbers, and the like, I will give you one which is almost a specific, and within the reach of every one, especially those living on the sea-board.

Procure fresh fish—of any kind whatever, the commonest and cheapest just as good—a sufficient quantity according to circumstances, say one peck to a barrel of water. Let them stand therein a day or two, in order to commence decomposition and emit their necessarily unpleasant odor; then remove the barrel to your patch, just dampening the leaves.

In addition to driving away the bugs, your plants will become green and healthy, and soon grow beyond the reach of any future swarm of depredators. It may be necessary to use the water two or three times in the course of two weeks, but remember that every application is equivalent to a dressing of manure, which will amply repay for the labor, which is very trifling. Fresh fish offal is of equal value with the fish.—*Cor. Co. Gent.*

**YELLOW ROSES.**—The *Gardeners Chronicle*, from recent experiments, says that “roses like the *Cloth of Gold* and *Isabella Grey* demand four things: 1, a warm rich soil; 2, a southern exposure; 3, time; 4, to be protected from the pruning knife;” and asks, “May not these be also the conditions demanded by the famous old *Double Yellow Rose herself*?”

## CHUFA OR EARTH ALMOND.

MESSEES. EDITORS:—The Chufa (*Cyperus es tuus*) is a native of the dry, sandy hills of and was introduced into this country about years ago, by the Patent-office, and distributed it through the Middle, Western and Southern States. It has proved itself worthy of cultivation. It grows luxuriantly, and yields abundantly. Tubers are from one-half to three-fourths of an inch in length, of a brown color. They resemble chestnut in taste, being sweet and oily. The Chufa is valuable on account of its great ductiveness, and freedom from the depredations of the numerous insects which are so injurious to vegetables of the kitchen garden. It should, I think will soon, have a place in the garden of every farmer who takes any interest in raising things. It is a perennial plant, grows nearly two feet high, and very much resembles some of the grasses which grow in our swamps. It belongs to the same class of plants as the nut-grass (*Cyperus repens*), but has not the power of spreading as that great pest has. Seventy-five or one hundred tubers will raise half a bushel of poultry are very fond of it, and swine will eat it. It is planted in many places as food for hogs, and let them gather it.

F. A. FLEMING

*Curwensville, Clearfield Co., Pa.*

**SHADE TREES INJURIOUS TO FRUIT TREES.** The May number of the *Farmer*, T. B. S. wisely knows if the shade of Black Walnut would kill fruit trees. I think that the shade of the Black Walnut or Butternut will kill apple, peach, or pear. I have planted them in fields three several times in rows with trees, forty feet in squares, and in five years the four apple trees in the angles nearest other trees, died. I think the roots absorb moisture, as they are fast growing trees, and lateral roots extend a great distance from the trunk. The drippings from the tree have also an injurious tendency, as any person that has Black Walnut or Butternut growing in their fields can see from the effect produced on wheat, rye, corn, or grass, or near the trees. I think, from my experience, that they are decidedly poisonous to fruit trees. Z. K., *Pittston, Luzerne Co., Pa.*

**WILD PLUM AS A STOCK.**—A correspondent writes, in a number of the *Farmer*, some time since, wishing for information on budding and grafting on the wild plum stock. You may inform them that they take quite readily either way. I have about forty growing that have been treated in various ways. Some kinds have a tendency to outgrow the stock, when budded or grafted high up. I have budded a stock that was growing by itself, and it is now in bearing order, and forms quite a large sized tree, though only two years from the bud. I also find that pears take readily on the white plum stock and grow fast.—*WM. RAWLINS, Flour Creek, Pa.*

**DIGGING ABOUT FRUIT TREES.**—It is not a good plan to dig the ground over the roots of grasses and shrubs and fruit trees, as it destroys every surface fibre and drives the larger roots downward. Mulching, or cultivating with a hoe to keep down weeds and let in air and moisture, is better, and answers the same purpose.

## Ladies' Department.

### ORIGINAL DOMESTIC RECEIPTS.

for the Genesee Farmer by various Correspondents.]

**MAKE CRACKERS.**—Take one egg, one pint milk, one tea-cupful lard, a little salt, and a flour to make a stiff dough. Rub the lard one flour together; then add the egg and Add flour and knead well till it is a very ough. Then add to this one-half its size of ough, knead them well together, and set o rise. When light, roll out to one-eighth inch thick, cut in squares, prick with a fork, ke to a crisp.

**WVN NUTS.**—Take one and a half tea-cupfuls four tea-cupfuls buttermilk, two tea-spoon-deratus, two eggs, a little salt, and flour 1 to form a dough. Beat the eggs light and em with the milk, add the saleratus, turn to the flour, then add the sugar, and knead Roll out to one-half inch thick, cut into round cakes about an inch in diameter, put into a pan of hot lard, and take them out a nut brown color.

**TER BISCUIT.**—Take two tea-cupfuls of but- d rub it well into some dry flour; then add eggs well beaten, and one quart of sweet milk, flour enough to make a very stiff dough. lit it well, and then add to it one-half its size it dough; knead together and let it rise. light, roll it out and cut into round cakes, with a fork, and bake.

**GNUTS.**—Take one quart of light dough, a of lard the size of an egg, and one-half tea- of sugar, knead well together, roll out thin, y form you wish, and drop into a pan of g lard. Remove them when of a light yel- color.

**ER.**—Twenty drops wintergreen, twenty drops e cinnamon, twenty drops essence sassafras, int molasses, one table-spoonful ginger, half yeast, five quarts hot and five quarts cold . Let it ferment, and cork tightly in bottles.

**PING DISHES.**—Much time is wasted by house- rs in wiping their dishes. If properly washed rained in a dry sink, with a cloth spread on ottom, they look better than when wiped, s the economy in time and labor.

**NDY PUDDING.**—One quart milk, two table- fuls flour, yolks of four eggs well beaten and l with the milk. Beat the whites separately four teaspoonfuls sugar, drop on the top of dding, and put in the oven.

**NGE BISCUIT.**—One pint yeast, one quart milk, one cupful butter, half cupful lard, one spoonful salt, a little soda. Mix. When light, in small biscuits. Let them set fifteen min- then bake.

**OD BISCUIT.**—Take one quart of sour cream, e tea-cupful of butter, tea-spoonful of soda, a salt, knead it stiff and mold it well, roll out, cut with a biscuit ring.

**TO PRESERVE HERBS.**—All kinds of herbs should be gathered on a dry day just before or while they are in blossom. Tie them in bundles and suspend them in a dry, airy place, with their blossoms downward. When perfectly dry, wrap the medicinal ones in paper and keep them from the air. Pick off the leaves of those which are to be used for cooking, pound or rub and sift them fine, and keep the powder in bottles corked up tight.

**TO KEEP CHEESE FROM MOLDING.**—After it is cut, wrap it in a linen cloth and keep it in a tight tin box. Bread will keep much longer fresh in this way, also doughnuts and all kinds of cake.

**COFFEE** is as much improved by washing before roasting as potatoes before cooking, for those who dislike to drink dirt.

### "ONE DOZEN DOMESTIC RECEIPTS."

#### FOR THE LADIES.

**TO PREVENT HOLES FROM COMING IN THE HEELS AND TOES OF STOCKINGS.**—Darn them carefully as soon as they become threadbare.

**TO PREVENT DOUGH FROM SOURING.**—Watch it closely, and bake it as soon as it is light enough.

**WHAT TO DO IF IT BECOMES SOUR.**—Put in soda or saleratus, and eat that which, if put moist on the back of your hand, will make a sore in an hour. *Another way.*—Throw it to the pigs, and watch closer next time.

**HOW TO MAKE CHILDREN MIND.**—First, consider them as children and not as old folks. Second, never command them to do anything unreasonable. N. B.—I learned this rule from the old hen. She follows these rules, and her chickens always mind.

**WHAT TO DO IN A FIT OF ENNUI.**—Go into the attic and look over all the old rubbish. You will be sure to find something interesting and something to do.

**WHAT TO DO IN A FIT OF THE BLUES.**—Go and see the poorest and sickest families within your knowledge.

**WHAT TO DO IN A FIT OF THE SULKS.**—Think over all the kindnesses you have received, and the manner in which you have repaid them.

**HOW TO PREVENT BUTTONS FROM COMING OFF FROM CLOTHES.**—As soon as they become loose, cut them off and sew them on good with a strong double thread.

#### FOR THE MEN.

**HOW TO PREVENT HENS FROM DOING MISCHIEF IN YOUR OWN AND YOUR NEIGHBORS' GARDENS.**—Give them a yard with a high, tight fence, a good, warm shelter, and plenty of food.

**WHEN TO CUT PIG YOKES.**—When you happen to see them. But you had better shut your pigs where there is a good tight fence, feed them well, and they will not need any yoking.

**HOW TO PREVENT CATTLE FROM BECOMING UNRULY.**—Have good fences, and keep them up. See that they have water and salt enough, good feed, and never abuse them. X.



### New Advertisements this Month.

Rochester Agricultural Works—A. Gordon, Rochester, N. Y.  
 Albany Agricultural Works—Emery Brothers, Albany, N. Y.  
 Illuminated Catalogue—Emery Brothers, Albany, N. Y.  
 Turnip Seed—J. M. Thorburn & Co., New York.  
 Cattle and Their Diseases—John P. Jewett & Co., Boston.  
 Copeland's Country Life—John P. Jewett & Co., Boston.  
 Mowers, Threshers, Fanning Mills—A. Longett, New York.  
 Yeomans Fruit Bottle—T. G. Yeomans, Walworth, N. Y.  
 Farm for Sale—Thos. F. Smith, Middleport, N. Y.  
 Farms for Sale—John Minor, M. D., Accokeek, Va.  
 Cranberry, Blackberry, Raspberry, and Whortleberry Plants—  
 Paul Chilson, Bellingham, Mass.  
 Water Pipe—I. S. Hobbie & Co., Rochester, N. Y.  
 The Scientific American—Munn & Co., N. Y.  
 Colored Fruit Plates—D. M. Dewey, Rochester, N. Y.

**WEATHER OF THE LAST HALF OF MAY AND THE FIRST HALF OF JUNE.**—Our last notice closed with the high temperature and very rapid growth of vegetation for the first half of May. Both were continued through the last half of the month. Indeed, it is very rare that we see such luxuriant and rapid progress in the vegetable world.

The mean heat of the last half was 3.5° above the average for twenty-two years. The average heat of the month 60.5°, being 5° above the mean of May for the same years.

The rain in the month was 2.71 inches, somewhat unequally distributed in this section, so that some parts had been near a drouth; still, the wheat, and grass, &c., made rapid progress. Indeed, the heads of wheat appeared fully on the 27th in the fields at Wheatland, and on other rich and warm farms. Garden strawberries began to be mature at the close of May. Over the country was heard the voice of congratulation at the rich promise of the coming harvest.

The prevalence of severe thunder storms of rain and hail and wind, or of violent tornadoes of limited extent and duration, but destructive to property, as well as life in several cases, was remarkable, especially in the last half of May.

June gave us two warm days like the past, but the third changed to cool in the afternoon, from distant and heavy showers. The 4th was colder still, giving a mean of only 28°, and so cold as 31° in the evening and following night. Indeed, the rain of the 4th, in the forenoon, was attended here by hail, at Lockport with snow; and over a wide extent, rain, hail and snow, proved the uncommon degree of cold for the season. On the 5th was a severe frost over a wide range, from the Mississippi to the ocean in the latitude of New England, by which, in many places, corn, potatoes, beans, garden vegetables generally, and grapes, were injured or destroyed, and some localities in Western New York, winter barley and wheat were injured. As the cold followed a storm which, from the west went eastwards, the frost was earlier at the west. Thus, in middle Michigan, the severe frost was on Saturday morning, but here and eastwards on Sabbath morning.

The 7th and 8th were warmer; a heavy thunder occurred on the 8th at half-after one in the morning followed by heat, till another shower from one to M., changed the atmosphere to cool. On the 9th considerable frost; on the 10th rain and hail, win cold; on the 11th, Saturday morning, was a severe at the west and over our State. But at Pittsfield, the severest frost was on the 12th, in the morning, cold also moved from west to east, the ordinary ran

The damage by both periods of frost was of the kind, but very unequal in different localities. In places the frost of the 5th was the most severe; in that of the 11th.

The first impression was that great injury had done to the crops; but the amount is now believed to be exaggerated. Strawberries abundant, very large, fine, this fortnight.

The average heat of this half June is 59.5° or 4° the mean for the same period for twenty-two years. Abundance of rain has fallen. Wheat headed fully first week of June, and at this time the wheat harvest going on in southern Illinois, and new wheat appeared in market at St. Louis, and soon after from south at Cincinnati.

Cold has June been so far. Was ever the like 1842 frost occurred on the 7th and 11th of June, a mean of the first half was one degree less than not 1843, the same was true, only three degrees colder; snow on the 1st, frost on the 2d, and on the very cold rain, not acceptable to vegetation. Weather followed in both cases.

In 1816 was the cold summer over the country. On the 5th of June, on a hot day, was a very severe storm, by which the air was so cooled as to be followed with snow and strong west wind, by which vegetables were killed much more extensively than in the last night. The summer was cold; frost in every month crops of rye fine over New England; but very little dian corn was ripened.

**THE LATE FROSTS.**—There has been unusually many frosts on the 5th and 10th of June, extending over greater portion of the Northern and Western States and Canada, which have caused great alarm among the farmers for the safety of their crops.

The frost of the 5th appears to have been most felt in Western New York, Ohio, and Northern Pennsylvania, destroying many of the garden vegetables, vines, and field beans. Corn and potatoes also suffered to some extent; and in some localities the winter wheat is injured. Winter barley, of which a considerable breadth was sown, is much injured in this section. In many instances is entirely or partially cut off. The frost was not nearly so destructive to the eastern part of the State and the line of the Hudson river.

From Illinois and Indiana the accounts are very conflicting. Wheat is thought to be injured in some localities, and early corn and potatoes very generally; they are said to be coming forward again, and produce fair crops. In Michigan, the frost of the 10th was severe. A good deal of the Mediterranean wheat was injured, and corn required to be replanted in many places. In Iowa, the weather has been very dry and

ter part of the spring, and the frost does not seem to have been felt there to any extent. In Wisconsin, the frost cut down some of the early corn and fruit, but did not do serious damage. The frost of the 10th was pretty severe in Canada, wheat in some instances being injured, and the spring crops in the back townships.

I took a trip into Canada a few days after the frosts, and found the farmers complaining very much of the damage done, but we are inclined to think the amount of damage over-estimated. A great portion of the wheat had headed out when the frost came, and could have suffered little or no injury. The frost was but slight on the eastern side of the peninsula lying between Lakes Erie and Ontario.

On the whole, later accounts are more cheering than those given while the anxiety and excitement lasted, and we think there are good grounds for anticipating that a great deal of unnecessary alarm has been felt, and that the effect of the late frosts will ultimately prove less serious than was apprehended.

**HALF VOLUME—NOW IS THE TIME TO GET SUBSCRIBERS.**—The present number commences the half volume of the *Genesee Farmer*. Already many of our friends have sent in small clubs of new subscribers, and we trust others will do likewise. There are few of our readers who could induce five of their neighbors to try the *Genesee Farmer* for half a year. We will send five copies for the present half volume (July to December inclusive) for \$1.00, and send the person getting up the club a copy of our beautiful 25 cent book, the *Rural Annual and Horticultural Directory*, pre-paid by mail. For \$1.50 we will send eight copies of the *Farmer* and a *Rural Annual* to the person getting up the club. For premiums for larger clubs see last page of this number.

**SEVENTY DOLLARS IN CASH PREMIUMS FOR SUBSCRIBERS TO THE HALF VOLUME.**—We would again call the attention of our agents and friends to our List of Premiums for the best number of subscribers to the half volume of the *Genesee Farmer*, commencing with the present number. A few persons are competing for these Premiums, and we will undoubtedly be taken by unusually small clubs. It is the time to attend to this matter. (See last page of this number.)

**ONION MAGGOT.**—JOHN W. PROCTOR, of South Danvers, N. H., writes us under date June 20: "There are many thousands of onions near me already so badly eaten by the maggot that their owners are replanting them with care. The onion has been for many years the most valuable crop produced in our fields, often yielding a net profit of \$100, or more, per acre—and this with only a small amount of the labor required for the culture of Indian corn."

#### Inquiries and Answers.

**THRASHING MACHINE.**—(THOMAS HAINES.)—Of sweepers or Threshing Machines, the most celebrated is that of PATRICK. It is well known and gives very general satisfaction. A. GORDON, of this city, manufactures these machines, with all the recent improvements, in a very superior and substantial manner. You will find his advertisement in another column.

**GRAFTING APPLE TREES.**—(WM. CUNNINGHAM, Croydon, C. W.) There is no perceptible difference in the value of a tree, whether it is grafted with scions taken from young trees or from bearing trees. By using scions from bearing trees, you are able to know to a certainty what you are propagating; but if you have young trees, the varieties of which you know, you can use the scions from them as successfully as from bearing trees.

We know of no reason why trees grown about Rochester should not thrive well in Canada, if properly transplanted into an appropriate soil. That many trees have died that have been taken into Canada from this section, there can be no denying; but a glance at the condition and treatment of most young orchards, not only in Canada but throughout the United States, would suffice to satisfy any mind of the cause or causes of nine-tenths of all the mishaps and failures of orchard trees. Not to enter too much into details, we will specify only a few of the incidents which young trees are subjected to. First, there are some persons engaged in selling trees who represent themselves connected with some well-known nursery establishment, but who in fact make a practice of picking up second and third rate trees at cheap rates and supplying their customers with them. These trees are usually misshapen and feeble, and sometimes even wild stocks that have failed in the working. Many wild cherry and peach trees are palmed off thus every season, as they are usually fine looking and stocky. Again, trees are often packed without the least skill or care, and are half dead when they reach their destination. Three-fourths of those who purchase trees, make no preparation for receiving and planting them; and when they come to hand they are thrust into small holes in unsuitable or unprepared soil, and there remorselessly left to their fate to contend with the elements in air and earth, insects, worms, cattle, mice, &c. But we can not pursue this further. Buy your trees of nurserymen or their authorized agents; see that they are in good order when received; have your land well-prepared beforehand; plant the trees as if you intended them to produce fruit and become a valuable source of revenue; give them thorough cultivation and defend them from attacks of insects, &c.; and we have no doubt you will find that, although grown in Rochester, they will succeed in Canada.

**BURNING CLAY SODS FOR MANURE.**—Will you please inform me, through the columns of your paper, how clay sods are burned for manure, and how and at what time the ashes are distributed when used as manure for different crops, particularly potatoes? Are sods from other than clay soils burned for this purpose? About what area of good clay sod land is required to furnish say 200 bushels ashes.—WM. BROWN, Brighton, C. W.

It may be done during the dry weather of summer, by pairing off the sods with a plow, three or four inches deep, and in wide slices, turning the furrows almost flat. Then cut them with a sharp spade into slices as large as can be conveniently carried and piled by one man. Make a fire of chips, or other combustible material, and pile the sods over it in an arched form, leaving a slight opening to windward near the bottom. As the fire progresses, more sods are piled on, till a heap is formed some three or four feet in diameter; the whole is then covered with earth and allowed to smoulder away slowly, care being taken not to allow the fire to burn through the external



surface of the heap, which may be prevented by occasionally applying a fresh coating of earth. The great art in this operation consists in keeping up a continual smouldering fire, without either smothering by applying too much earth or letting it break out into flame.

The ashes are, when cool, usually scattered over the ground with a shovel, and the soil plowed and prepared for winter wheat. If it is desired to preserve the ashes for a crop in another field, they may be carted away to some shed where they will be sheltered from rain, then sifted, and drilled in along with the seed. If wanted for potatoes, it is usually kept all winter, and applied in the drills or hills before planting, at the rate of a handful to each hill.

The nearer a soil approaches pure clay, the greater is the benefit derived from burning it. Peat soils have frequently been burned with advantage. The yield of ashes depends much on the quantity of earth burned. In England, from 25 to 40 loads of 36 bushels each is the usual yield per acre.

We should be glad to hear from any of our readers who have had experience in burning clay soils.

**EVERGREEN SEED.**—Owing to the scarcity of timber in these parts, and the necessity of raising it both for fuel and building purposes, I would like to ascertain whether there is any pine seed sold in your region; also, the price, the quantity to sow per acre, the time to sow, and the fastest growing kinds. Any information concerning the growing of pines would be acceptable through your paper. I would like to obtain seed enough for ten acres. I have no idea of the cost of seed, as I have never noticed any article on the subject. One of my neighbors informed me that it is sown extensively in Germany, and large forests of pine are grown from the seed.—HENRY STURGESS, *Niobrarah, N. T.*

Evergreen seeds may usually be purchased of J. M. THORNTON & Co., 15 John street, New York. The most valuable kinds for your purpose are the White Pine (*Pinus strobus*), the Scotch Pine (*P. sylvestris*), and the Norway Spruce (*Abies excelsa*). The price of seed ranges from \$2 to \$4 per pound. Four or five pounds of seed would be sufficient to plant the surface you mention. The seed should be sown very early in the spring, in beds of light, sandy loam; and after appearing above ground, should be shaded from the scorching rays of the sun until late in the season. They should stand in the seed-beds two years, and then be transplanted about a foot apart in well-pulverized garden soil, where they can remain two years, and then be finally transplanted into their permanent situations. The best time for transplanting is in the spring, just as the buds begin to swell. Much care and attention is necessary to grow evergreens from the seed, during every stage of their growth, until they are permanently planted; and we should advise our correspondent to purchase the young plants, ready grown, from some nurseryman who cultivates them.

**SHOOTS ON APPLE TREES.**—Last winter, I gave my apple trees rather a severe pruning, and they are now full of young shoots. What shall I do with them?—B. F. A.

While young, they may be easily rubbed or stripped off by hand. By this time they may be too tough for this expeditious method of removing them. If so, cut them out with a knife. If allowed to grow, they will weaken the trees, and involve considerable labor to saw them out next winter. Attend to them at once.

**OSAGE ORANGE SEED—PEAR TREES.**—(R. H. M. Palmyra, Ind.) One pound of Osage Orange seed sufficient to plant the amount of hedge you mention.

Prepare your soil for Pear trees by deep spading, plowing and manuring well, and we have no doubt trees will thrive in your soil.

**BUCKTHORN SEED.**—(W. A. FORSYTH, *McLean, Ton. Co., N. Y.*) The following named seedsmen usually have Buckthorn seed for sale? J. RAPALJE, BRIGGS & BROS., O. BLOSS & Co., of Rochester, and J. M. THORNTON, 15 John street, New York.

**OATS FOR GREEN FOOD.**—Will some of your correspondents please inform me, through your valuable paper

1st. If I can cut oats green, twice from the same field in one year, would it give more fodder for general than corn, from the same piece of ground, taking consideration that when corn is entirely ripe, the crop is entirely dried up, and consequently can have but nourishing properties, and the husk like so much of the farmer's chips, while the oat straw is green and nutritious?

2d. If two crops of ripe oats could be got from the same ground the same year, by twice sowing, would a more remunerative crop for feeding than one crop of corn from the same ground?

3d. Can a greater number of bushels of common peas be raised to the acre, than corn or other grain used for feeding animals, (on the same ground)? and is a ton of peas as good or nutritious as the same quantity of corn or other grain for animals? and which is most exhausting to the land peas or grain?—ELIAS T. C. LOS LUCERAS, *New Mexico.*

**WHEAT IN HILLS.**—Will your correspondent CHAS. BRACKETT, of Rochester, Ind., give us a full account of his method of growing wheat in hills? Will it produce a full spring or fall wheat the same as corn, and culture?—W., *Oakville, C. W.*

#### Notices of Books, Pamphlets, &c.

**CHAMBERS' ENCYCLOPEDIA.**—A Dictionary of Universal Knowledge for the People, on the basis of the latest edition of the German Conversations Lexicon. Illustrated by Woodcuts and Maps. Part I. New York: D. APPLETON & Co.

A number will be issued on the first of every month. Price 15 cents each.

**TRIUMPHS OF PAUL MORPHY.** The Exploits and Triumphs in Europe of PAUL MORPHY, the Chess Champion, including an Historical Account of Clubs, Biographical Sketches of Famous Players, and various Information and Anecdotes relating to the noble Game of Chess. New York: D. APPLETON & Co. Price 75 cents.

**ANCIENT MINERALOGY;** or an Inquiry respecting Mineral Substances mentioned by the Ancients, with Occasional Remarks on the Uses to which they were applied. By N. MOORE, LL.D. New York: HARPER & Bro's. Price \$1.

**COSMOS.** A Sketch of a Physical Description of the Universe. By ALEX. VON HUMBOLDT. Translated from the German. E. C. OTTE and W. S. DALLAS, F. L. S. Vol. 5. New York: HARPER & Bro's. Price 85 cents.

**PRAIRIE FARMING IN AMERICA,** with Notes by the author on Canada and the United States. By JAMES CAIRD, M. A. author of "English Agriculture," &c. New York: D. APPLETON & Co. Price 25 cents.

**THE NEW AND OLD,** or California and India in Roman Aspects. By I. W. PALMER, M. D., author of "Up and Down the Irrawaddi," &c. With Illustrations. New York: D. APPLETON & Co. Price \$1.25.

**THE WAR OF THE ROSES;** or Stories of the Struggles of York and Lancaster. By J. G. EDGAR, author of "His Boy's," &c. With Illustrations. New York: HARPER & Bro's. Price 62½ cents.

**MEMOIRS OF THE EMPRESS CATHERINE II.** Written by herself, with a proface by A. HAZEN. Translated from the French. New York: D. APPLETON & Co. Price \$1.

**THE ROMANCE OF A POOR YOUNG MAN.** By OGDEN FUGILLER. Translated from the French by HENRY J. MACALD. New York: RUDD & CARLETON. Price \$1.

BOY'S BOOK OF MODERN TRAVEL AND ADVENTURE. By MERRITT JONES, author of "Children's Bible Book," &c. With Illustrations by Wm. HARVEY. New York: D. APPLETON & Co. Price 75 cents.

IN TRUMPET; or Heads and Tails for the Wise and Foolish. By the late PAUL CHATFIELD, M. D. Edited by ERSON SANDERS, Esq. New York: D. APPLETON & Co. Price \$1.25.

HALIFAX, GENTLEMAN. By the author of "The Ice," &c. With Illustrations by AUGUSTUS HOPPIN. New York: HARPER & BRO'S. Price \$1.

ED FITZGERALD, "The Chevalier." By CHAS. LEVY, or of "Charles O'Malley," &c. New York: HARPER & BRO'S. Part 1st. Price 25 cents.

LITTLE PIG MONTHLY: A Child's Magazine of Funny and Fairy Stories. New York: DINSMORE & Co. Price 25 cents a number or \$3 a year.

LECTURES ON EDUCATIONAL TOPICS AND INSTITUTIONS. By GEO. S. BOUTWELL. Boston: PHILLIPS, SAMPSON & Co. Price \$1.

AGABOND. By ADAM BADEAU. A Volume of Sketches in Literature, Society, and Art. New York: RUDD & CARLTON. Price \$1.

BERTRAMS. A Novel. By ANTHONY TROLLOPE, author of "Bartholomew Towers," &c. New York: HARPER & BRO'S. Price \$1.00.

HELOER'S STORY. By OLIVER BUNCE. New York: HARPER & BRO'S. Price \$1.

By ANNE WHITNEY. New York: D. APPLETON & Co. Price 75 cents.

the above books are for sale by D. M. DEWEY, of New York.

DRAINAGE. The Principles, Processes, and Effects of Draining Land. With more than 100 Illustrations. By HENRY BENCH. New York: A. O. MOORE & Co. Price \$1.

sale by E. DARROW & BRO., of this city.

DE TO THE CENTRAL PARK, N. Y. With a Map and Proposed Improvements. By an Officer of the Park. New York: A. O. MOORE & Co. Price 15 cents.

sale by E. DARROW & BRO., of this city.

TRY LIFE: A Hand-Book of Agriculture, Horticulture, Landscape Gardening. By E. MORRIS COPELAND. Boston: JOHN P. JEWETT & Co. Cleveland: H. P. B. JEWETT. Price \$3.

NS. How to raise them profitably. Details of Experience given in Practical Onion Growing. New York: ORANGE & CO. Price 21 cents.

the above books can be obtained from the respective publishers, sent, prepaid by mail, for the price annexed.

REVIEW OF THE MARKETS.

GENESEE FARMER OFFICE, }  
ROCHESTER, N. Y., JUNE 22, 1859. }

In our last report, change has been the prevailing feature of the Produce Market, with a general declining tendency. The expectations of operators for a rise, in view of the probability of a European harvest, have not been realized. There would seem to be a principle in human nature which prompts its possessor to follow the multitude, or, rather, the multitude to follow the few who lead, as been frequently exemplified in the markets during the last few months. Large advances in price have taken place in many commodities, and operators have rushed blindly and recklessly, and regardless of every thing but the one object to secure a base. At length, as it were by common consent, they stop, and retreat, for no other reason than the utter absence of a sufficient one for the advance. It is not wise to follow others in a legitimate and well-considered motive for so doing, in matters pertaining to business, or anything else.

OUR AND GRAIN.—The markets for breadstuffs are, generally dull. Strenuous efforts to keep up prices avail but for a short time. Reports of extensive damage by the late frosts are only a temporary advance. Prices have been forced,

not only relatively but absolutely, higher than were current in other important markets of the world, and nothing could, or can, sustain them but the shadowy apprehension of a local or domestic famine.

PROVISIONS.—The same dull feeling prevails in this department. The same circumstances induced, mainly, the speculative feeling and consequent advance in the principal articles, and no adequate reasons are apparent to justify or sustain it.

CATTLE.—Beef Cattle, Sheep, and Lambs have declined in price, in consequence of warm weather and excessive supply.

WOOL.—The market for wool is not active. There is no manifest anxiety either to buy or sell, and the new clip is not pressed on the market. A difference of opinion seems to exist in relation to the future. There is such a thing as a cherished theory, and sometimes a habit of clinging somewhat tenaciously to it; nevertheless, at the risk of being wrong, we will hazard the opinion that wool may be held at present with advantage.

ROCHESTER MARKET.—June 22.

FLOUR—Market dull and but little doing. To the extent of transactions, prices are steady. Superfine western, \$6.25@6.47; extra do., \$7.50@8.75; Genesee and Canadian, \$3.25@3.75.

GRAIN—Wheat, \$1.66@1.85 for white, and \$1.30@1.70 for red. Corn, 80c@85c. Rye, 90c@95c. Oats, 50c. Barley 60c@70c. Beans, 65c@75c.

SEEDS—Same as quoted last month.

PROVISIONS—Mess Pork, \$17.00@18.00. Lard, 12c@12 1/2c. Hams, 11c@12c. Shoulders, 8c@9c. Butter, 13c@14c. Cheese, 10c@11c. Eggs, 12c. Potatoes, 30c@62 1/2c. Dressed hogs, 6c@7c per lb.

BEEF CATTLE—Live weight, 4 1/2c@5 1/2c per lb. gross. SHEEP—\$3@4.50 per head. Lambs, \$2@2.50 each. CALVES—\$3@4.50 per head.

HAY—\$8@12 per ton.

WOOL—25c@37 1/2c per lb. for the range of qualities.

We have been credibly informed that Calves have been sold and bought in this market, for the shambles, at fifty cents to one dollar each, of course on account of their inferiority. Both seller and purchaser of such animals should be prosecuted with the utmost rigor of the law.

NEW YORK MARKET.—June 10.

FLOUR AND MEAL—Market unsettled, with limited demand. Superfine State, \$5.80@6.10; extra do., \$6.25@6.50; Michigan, Indiana, Ohio, Iowa, &c., superfine, \$5.90@6.10; extra do., including shipping brands of round-hoop Ohio, \$6.50@7. Southern dull; Brandywine, \$7.50; Georgetown, \$7.40@8.40; Petersburg city, \$8@8.75; Richmond city, \$8.25@9; Gallego and Haxall, \$9.50@9.75. Rye flour dull at \$4.75 for fine and superfine. Jersey corn meal, \$4.20; Brandywine, \$4.50; punchcoons, \$2.50@2.10.

GRAIN—Wheat heavy and declining. Michigan, Kentucky, and Southern White, \$1.60@1.80; red do., \$1.50@1.70. Rye dull at 95c. Barley quiet at 60c@70c. Oats dull; Virginia, Jersey, Delaware, and Pennsylvania, 43@47c; State, 47c@49c; Western and Canadian, 50c@52c. Corn in favor of the buyer; old Western mixed, 51c; new do., 82c@83c; yellow, 84c@85c.

SEEDS—Clover, 8c@9c per lb. Timothy, \$2. for mowed; \$2.37 1/2@2.75 for reaped, per bushel. Red top, \$2.62@2.87 per five bushel bag.

PROVISIONS—Pork unsettled. Mess, \$16.50; thin mess, \$17; sour mess, \$16; prime mess, \$17.25@18.25; clear western, \$19.25@19.50; prime, \$13.80@14. Beef—country mess, \$8.50@9.25; country prime, \$6.50@7; western re-packed, \$10@11; extra mess, \$14@15.50. Beef hams, \$14.50@17.50. Cut meats in limited demand; Hams, pickled, 9c@9 1/2c; Shoulders, 7 1/2c@7 3/4c. Hams, dry, salted, 8c@8 1/2c; Shoulders, 6 1/2c@7c. Lard, 10 1/2c@11 1/2c for No. 1 western. Butter—Ohio, 16c@18c; State, 18c@20c; Orange county, 22c@24c. Cheese, fair to prime, 5c@9 1/2c.

BEEF CATTLE—First quality, 10 1/2c@11c; medium, 9 1/2c@10c; ordinary, 8c@9c; extra good, 1 1/2c@12c.

SHEEP—range from \$3 to \$5 per head.

HOGS—6 1/2c@6 3/4c, gross, for corn fed; 6 1/2c@6 3/4c for distillery.

WOOL—40c to 60c per lb. for the range of Native, Merino, and Saxony.

PHILADELPHIA MARKET.—June 20.

FLOUR AND MEAL—Market very inactive. Holders disposed to be firm. Superfine, \$6.75@7.75; extra, \$7@8.50; fancy lots, \$7.75@8.50; premium lots, \$5.50@6.9. Rye flour steady at \$4.50. Corn meal, \$4 for Pennsylvania; sales limited.

GRAIN—Wheat, with light receipts, is in better demand. White, \$1.65@1.85; red, \$1.70@1.80. Rye 95c. Corn, 87c above. Oats, 46c@50c for Southern and Pennsylvania. Buckwheat, for seed, \$1.75 per bushel.

SEEDS—Clover in demand at \$5.50@5.75; Timothy sought after at \$2@2.50 for domestic. Flax, \$1.50 per bushel.

PROVISIONS—Mess Pork, \$18; prime, \$16; stock light.—Mess Beef, \$20 for city packed. Bacon—sides, 9½¢@10¢; Hams, 10½¢@12¢; Shoulders, 7½¢@8¢. Green Hams and Sides, 9¢@9½¢; Shoulders, 7¢@7½¢. Lard, 12¢@12½¢ for tubs and barrels; 13¢@13½¢ for kegs. Butter dull—roll, 11¢@12¢; packed, 9¢@11¢. Cheese, 9½¢@10½¢ for Ohio. Eggs, 14½¢@15½¢.

CATTLE MARKET.—The Beef Cattle offered recently were of inferior quality; prime were in good demand, and brought full prices, ranging from \$5 to \$12 per 100 lbs, the latter for extra quality. Milch Cows, \$25@35 for common to prime. Fat Sheep, 4¢@4½¢ per lb., gross. Stock Sheep, \$2@2.50 each. Hogs, 8½¢@9½¢ per lb., net.

HAY—1 Timothy, best quality, 90¢@95¢ per 100 lbs; inferior, 75¢@80¢.

WOOL—More freely offered; demand limited. Prices range from 35¢ to 55¢, cash, for common to full blood.

**BUFFALO MARKET. — June 21.**

LOUR—Common State from spring wheat, \$5.75; good do., \$6@6.25; extra do., \$6.75; Wisconsin and Ohio extras, \$7@8; favorite brands, \$8.25.

GRAIN—Wheat—standard spring, \$1.16; winter red, \$1.40@1.60; fair to prime white, \$1.60@1.82 for the range. Corn, 70¢@72¢; heated, 65¢. Rye, \$1@1.03. Barley quiet at 67¢. Oats dull and declining; 46¢@45¢.

PROVISIONS—Market dull, with a downward tendency.—Mess Pork, \$17@17.25 for heavy; \$16@16.25 for light; prime, \$12.50@13. Mess Beef, \$9.50@10. Dry salted shoulders, 6½¢; smoked do., 7½¢. Plain Hams, 9½¢; sugar-cured, 10½¢. Dried Beef, 10¢@10½¢. Lard, 11½¢@12¢. Cheese, 7¢@5¢ from first hands.

**CHICAGO MARKET. — June 18.**

LOUR—Market dull and heavy. Sales of mixed brands of spring extras at \$5.30.

GRAIN—Wheat—red winter No. 1, \$1.35@1.40; No. 2, do., \$1.10; standard spring, 95¢@1 in store. Corn 66¢@65¢ for No. 1 in store and afloat; No. 2, 62½¢ in store. Rye dull at 90¢@95¢. Barley quiet at 40¢@55¢. Oats quiet; No. 1 in bags, 45¢. Beans 75¢@1 for common to good.

SEEDS—Clover, \$4.40@4.50. Timothy, \$1.50@1.70. Hungarian grass, \$2.50@3.

PROVISIONS—Mess Pork, \$17.50. Cut Hams, 7½¢@8¢; do. Shoulders, 5½¢@6¢. Bacon Hams, 9½¢@11¢; do. Shoulders, 7¢@7½¢. Lard scarce at 11½¢@11½¢. Butter—choice table, 12¢@15¢. Eggs firm at 12½¢@13¢. Potatoes active at \$1.05@1.10 for prime; common, 70¢@5¢.

POULTRY—Live Chickens, \$1.60@1.75 per doz. Turkeys, 80¢@9¢ per lb.

HIDES—Green city, 6½¢@6½¢; country, 6½¢@7¢; do. salt, 7½¢@8¢; dry flint, 16¢@17¢; murrain dry, 15¢@16¢.

CATTLE—Market dull. Common to good fat cattle \$2.50@4.75. SHEEP—\$2.20@2.50 per head.

HOGS—\$5@5.50. WOOL—Market declining; receipts limited. Fleeces—common native, 25¢@30¢; ¼, 30¢@32¢; ½, 32¢@34¢; ¾, 35¢@38¢; full, 35¢@40¢. Pulled—No. 1, 20¢@25¢. superfine, 30¢@35¢; extra, 35¢@40¢; double extra, 40¢@42¢ per lb.

**CINCINNATI MARKET. — June 20.**

LOUR—Market for flour very dull, with moderate local demand and but little inquiry for shipment. Sales of superfine at \$6.50@6.65; extra and family, \$6.70@7.

GRAIN—Wheat market a shade firmer, with rather more inquiry. Sales of fair to good and prime red at \$1.30@1.40; do white, \$1.40@1.45; inferior, \$1.27. Corn firm at 50¢@55¢. Barley firm at 60¢@61¢. Rye active at 95¢. Oats steady at 55¢@59¢.

SEEDS—Clover, \$5. Timothy dull at \$2. Flax quiet at \$1.30.

PROVISIONS—Mess Pork, \$16.25@16.50. Bacon—sides, 9¢; Shoulders, 7¢. Lard, 11½¢. Butter—Western Reserve, 13¢@14¢; prime central Ohio, 11¢@12¢. This department generally very dull.

POTATOES—Market firm. Meshannocks, 90¢@1; white motters, \$1@1.10.

HIDES—Green flint, 16¢@17¢; dry salted, 15¢@16¢; green salted, 6½¢@7¢; do. salt, 8¢ per lb.

HAY—Timothy firm at \$18@19 per ton.

BEEF CATTLE—In good supply and market dull at \$3@3.5 for common to prime.

SHEEP—Plenty and dull at \$1@3 each, according to quality.

HOGS—Supply liberal, and market dull at \$4.50@5.50 per cwt., gross.

WOOL—A dull feeling prevails; 30¢@45¢ for common to full blood, on arrival.

**TORONTO MARKET. — June 20.**

LOUR—Market depressed and exceedingly dull. There is not sufficient movement to establish quotations.

GRAIN—Wheat in poor supply; choice, \$1.60@1.70; medium and common, \$1.30@1.50; spring wheat in good demand at \$1.40@1.50. Barley and Rye quiet at 70¢@75¢. Oats in good demand at 56¢@55¢. Peas in good request at 55¢@90¢. Corn firmly held at 90¢@95¢.

PROVISIONS—Mess Pork, \$20@22; prime mess, \$16@17; prime, \$15. Hams, 9¢@10¢; smoked, 10¢@12½¢. Bacon—sides,

8½¢@9¢. Butter, 11¢@12½¢ for fresh; 8½¢@10¢ for 1 Eggs plentiful at 8½¢@10¢ per dozen. Potatoes firm 70¢@80¢ per bushel.

HAY—Moderate demand at \$12@17 for common \$15@21 for best timothy, per ton. Straw, \$10@12 scarce.

CATTLE MARKET—Beef Cattle, \$7@8 for medium per 100 lbs, deducting one-third for shrinkage. Sheep—\$5.50@6 each; shorn, \$4@5. Lambs, \$2@2.25 each \$3@3.7 for the range. Beef hides, 6½¢ per lb. Sheep clipped, \$1.50@1.60 each. Pelts, 12½¢@20¢. Lamb 1 each.

WOOL—More active with increased demand at 26¢@8

**LIVERPOOL MARKET. — June 3.**

LOUR AND MEAL—Western canal Flour, \$5.04 Philadelphia, Baltimore, and Ohio, \$5.76@5.43; Canada \$6.00; sour, \$4.50@5.25. Corn Meal, \$4.32@4.56 per 1

GRAIN—American white wheat, \$1.65@1.50; red \$1.58; Canadian white, \$1.50@1.65; red, \$1.40@1.50. corn—white, \$1.20@1.26; yellow, 97¢@101; mixed, All per bush. of 60 lbs.

SEEDS—American red clover, 11¢@12¢ per lb. linseed cake, \$4.20 per ton of 2240 lbs.

WOOL—Ranges in price from 12¢ to 34¢ per lb.

**LONDON MARKET. — June 6.**

LOUR—American sour, \$6.24@5.70; sweet, —. GRAIN—Wheat—American white, \$1.85@1.62; do 1 @1.56. Indian corn—white, 96¢@99¢; yellow, 96¢@60 lbs.

WOOL—Market inactive. For the various qualities range from 26¢ to 44¢ per lb.

**BRIGHTON CATTLE MARKET. — June 14**

At market, 900 Beeves, 200 Stores, 2000 Sheep and Lambs.

PRICES—Market Beef—Extra, \$9.50@10.00; First \$9.00; Second, \$8.00; Third, \$5.75. Working Oxen \$150. Milch Cows—\$59 @ \$41. Common, \$29 @ \$2 Calves—\$3.00@4.00. Yearlings—none. Two Years Calf Skins—12c @ 13c per lb. Tallow—7 @ 7½¢. 8 Lambs—\$1.75@2.00; extra, \$3.00@3.50. Pelts—\$1.2 Swine—Stores, wholesale, 6¢@7¢; retail, 6½¢@5¢. Sp 9¢@9½¢; retail, 9¢@10½¢.

Beeves are sold here by the head, at prices per lb. estimated weight of beef in the quarter, together with quarter, or the hide and tallow, at the same price, at a from live weight agreed on by the parties—from 25 to 34

**ADVERTISEMENTS.**

A FEW short advertisements of interest to farmers—such—will be inserted in the *Genesee Farmer* for two a line, or \$2 per square, each insertion, payable in advance secure insertion, they should be sent in by the 15th of the month. The *Farmer* has large lists of subscribers in *every Territory, and in all the British Provinces.* (It has 8000 subscribers in Canada West alone.) There is no cheaper medium for advertising everything of general interest rural residents in all parts of the United States and Canada.

**300 VARIETIES OF COLORED FRUIT PLATE** manufactured by D. M. Dewey, Horticultural Bo Rochester, N. Y. Send for a descriptive catalogue July, 1859. Address, as above, D. M. DE

**PERUVIAN GUANO**—No. 1 Peruvian Guano, Gov brand and weight, direct from Peruvian agents, it ties to suit purchasers, at the lowest market price. March, 1859.—5t A. LONGETT, 34 Cliff St., New

**BLOOD STOCK FOR SALE.**—One two-year-old "Mariner," out of "Miss Mattie," two Alderney Bul one five the other six months old; two pairs "Shanghai my 8t WILLIAM REDMOND, 43 Barclay St., New

**FARMS FOR SALE**—I offer for sale 1550 acres of productive land, upon navigable waters, in Stafford Va., which would make four good farms, and would be the following prices: Farm No. 1, at \$16 per acre; No. 3, No. 8, at \$7.50; No. 4, at \$5. For information, address Aceokeek P. O., Stafford Co., Va. Jy3t JOHN MINOR,

**FARM FOR SALE.**—A farm of one hundred acres half a mile of the village of Middleport, Niagara Co is offered for sale on reasonable terms. It is well supplied with barns, sheds, orchards, and all necessary improvements well watered. About 20 acres are good wood land, the cultivation. Inquire of, or address THOS. F. SMITH, July, 1859.—3t Middleport,

**BUCK-EYE MOWER,  
Westinghouse Thresher & Separator,  
EXCELSIOR FANNING MILL.**

For Sale by A. LONGETT, 34 Cliff St., New York.  
July, 1859.—3t

**EMERY BROTHERS,  
PROPRIETORS OF THE  
ALBANY AGRICULTURAL WORKS,  
ALBANY, N. Y.**

MANUFACTURERS OF  
**EMERY'S PATENT RR. HORSE POWERS,**  
ALSO OF  
The largest and best variety of AGRICULTURAL MACHINERY in this country, and adapted to the wants of all parts of the world.

ALL ARTICLES WARRANTED.

**FRESH FRUITS ALL THE YEAR.**

**THE YEOMANS FRUIT BOTTLE**

FOR utility, convenience, economy, and safety, is unequalled for preserving fruits in a fresh state, in any climate, an indefinite time.

"Having used these Bottles, we find them exceedingly convenient, and just the thing wanted."—J. J. THOMAS, in Register of Rural Affairs.

For descriptive and price circulars, address the proprietor, at Walworth, Wayne Co., N. Y. [jy 1t] T. G. YEOMANS.

**TURNIP SEED! TURNIP SEED!!**

AMERICAN RUTA BAGA, per lb.....	75 cts.
IMPORTED " " " " " " " "	50 " "
RED-TOP STRAP-LEAF TURNIP, per lb.....	75 " "
WHITE " " " " " " " "	75 " "
EARLY WHITE FLAT DUTCH " " " " " "	75 " "
LONG WHITE FRENCH (extra) " " " " " "	75 " "
YELLOW ABERDEEN, " " " " " "	50 " "
YELLOW STONE, " " " " " "	75 " "

And 25 other superior varieties, for which see our catalogues.

J. M. THORBURN & CO.,

July, 1859.—2t 15 John street, New York.

**ILLUMINATED CATALOGUE.**

THE PROPRIETORS OF THE

**ALBANY AGRICULTURAL WORKS**

HAVE just completed their new Catalogue, the most complete and beautifully illustrated work ever published by any manufacturer. As a work of art, it deserves a place in every library. It contains nearly 80 pages new engravings.

On receipt of six cents in stamps, to prepay postage, it will be sent to all applicants.

Local Agencies solicited for the sale of the above machines.

July, 1859.—1t EMERY BROTHERS, Albany, N. Y.

**WATER PIPE—THE BEST.**

THE undersigned are manufacturing the *Cheapest and Best Pipe*, for water course of every kind, that has been introduced to the public. It has been thoroughly tested by competent engineers and scientific gentlemen, and the result published. We can with confidence assert that it has no equal. It is made of sound pine timber, of any required size, capable of bearing any pressure less than 200 lb., and if properly laid will be more durable than iron or lead.

The price of the size most used for farm purposes, banded and tested, and warranted perfect, is 4 cents per foot.

Address I S. HOBIE & CO.,

44 Arcade, Rochester, N. Y.

July 2t.

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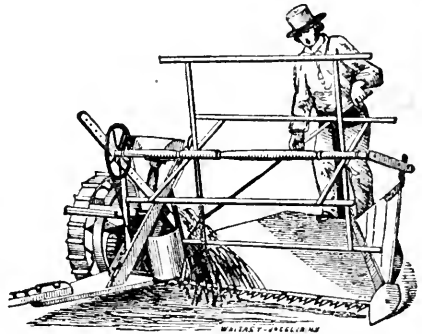
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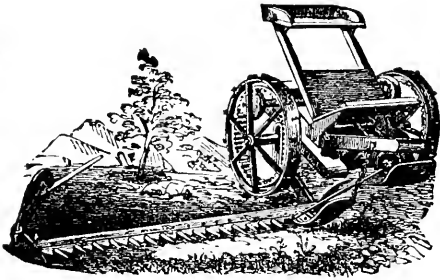
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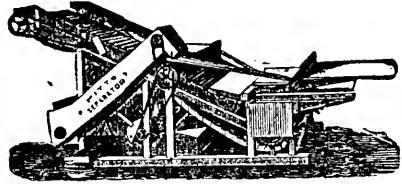
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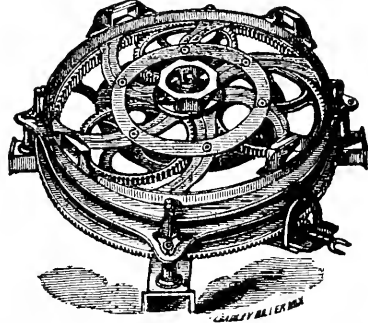
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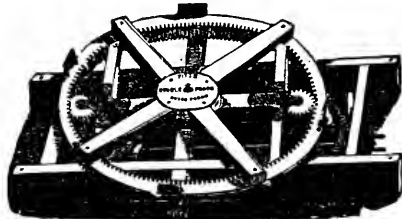


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# THE Gene See Farmer

PRACTICAL SCIENTIFIC FARMERS OWN PAPER

VOL. XX, SECOND SERIES.

ROCHESTER, N. Y., AUGUST, 1859.

No. 3.

## ON SOME POINTS IN AGRICULTURAL SCIENCE."

tion is the unpretending heading of an able and interesting article in the last number of *Silliman's Journal*, from the pen of Prof. S. W. JOHNSON, of Yale College. It will be recollected that we have frequently alluded to the experiments of WAY and TOMPKINSON "On the Power of Soils to absorb Manure." That the soil has the power of absorbing manure, has long been known. Hence we bury our garbage upon which the fetor of the skunk has been; and it is said that the Indians sweeten the carcass of the skunk, and render it fit for eating, by the same simple process. Dogs and foxes bury bones and meat in the ground, and afterwards examine them in a state of comparative freedom from offensive odors. But by what means these effects are produced, we had, previous to WAY's investigations, only very vague conceptions. The absorbent power of the soil, like that of charcoal, was referred "to the surface attraction of porous bodies." WAY discovered that it was due to the presence in the soil of double silicates. He found that ordinary soils possess the power of separating manure in solution in water the different earthy and alkaline substances presented to them in manure. Thus, when solutions of salts of ammonia, of potash, magnesia, &c., were made to filter slowly through a bed of dry soil, five or six inches deep, arranged in a flower-pot, or other suitable vessel, it was observed that the liquid which ran through no longer contained any of the ammonia or other manure employed. The soil had, in some form or other, retained the alkaline substance, while the water in which it was previously dissolved passed through.

It was also found that the combination between the soil and the alkaline substance was rapid, if not instantaneous, partaking therefore of the nature of the ordinary union between an acid and an alkali. In the course of his experiments, several different soils were operated upon, and it was found that

all soils capable of profitable cultivation possessed the property in question in a greater or less degree.

These double silicates were found to have a strong attraction for ammonia—lime, soda, or potash silicate being decomposed when ammonia in solution is filtered through the soil—the ammonia being retained. But it would appear that the lime silicate alone has the power of attracting ammonia from the air; and hence, perhaps, one of the advantages of liming land.

These important experiments not only opened up a new field for investigation, but materially affected our views in regard to the action of manures. Thus WAY found that the ammonia-silicate was much more soluble in water to which a little common salt had been added than in pure water; and he suggested that the effect of salt on some soils might be ascribed not to its furnishing chlorine and sodium to plants, but in increasing the solubility of ammonia in the soil. In the experiments on wheat, at Rothamstead, Mr. LAWES found that though the increase of the crop was, other things being the same, always in proportion to the quantity of ammonia supplied in manure; yet the quantity of nitrogen (ammonia) in the increase of wheat and straw was far less than the quantity of ammonia supplied in the manure; and therefore concluded that ammonia or its elements was evaporated from the wheat plants during their growth. When WAY made his important discovery of the formation of ammonia-silicates, he suggested that the large quantity of silica found in the straw of wheat and other cereals, was taken up as an ammonia-silicate—the silica being deposited on the straw and the ammonia evaporated into the atmosphere. Hence the loss of ammonia in growing wheat.

If the fact of the loss of ammonia in growing wheat was admitted, the celebrated "mineral manure theory" of LIEBIG fell to the ground; and accordingly, in "Liebig's Reply to Lawes," he pronounced the experiments of WAY, and the

opinions he based upon them, "*all self-deception; not reality, but theatre decoration.*"

Prof. JOHNSON, who translated LIEBIG's attack on LAWES, from which the above is an extract, and who is therefore familiar with the views of LIEBIG on this important subject, now bears testimony to the general truth of WAY's results. He says: "The recent experiments of EICHORN have cleared up the discrepancies of WAY's investigation, (which is itself one of remarkable interest,) and have confirmed and explained his facts." And again: "These observations of WAY and EICHORN promise to yield the most fruitful results, not only to the theory of chemical geology, as elucidating the formation and alteration of minerals, but also to the science of agriculture. The explanation of the retentive power of soils which WAY first proposed, thus acquires an incalculable significance. It is plainly a true explanation, as now relieved from the constraint of a fixed order of affinities or replacements; though not the only or a complete explanation."

The fact is now clearly established of the existence of double silicates in the soil, and also that it is to these that the soil owes its power to retain ammonia and other soluble elements of plants. We must no longer regard the soil as a mere receptacle for holding the food of plants, but rather as a stomach which digests, so to speak, this food and prepares it for assimilation.

Prof. JOHNSON concludes his article as follows:

"While the researches of EICHORN are of the utmost value in aid of the theory of the absorption of fertilizing matters by the soil, they do not suffice to give a full explanation of this process. Doubtless all the reactions that occur between hydrous silicates, sesquioxides, and saline solutions, may take place in the soil; but in addition to these, a number of other changes must go on there, as the soil is so complex and variable a mixture. The organic matters (the bodies of the humic acid group), which are often though not always present in no inconsiderable quantity in the water extract of fertile soils, can hardly fail to exert an influence to modify the action of the silicates. I have found that a peat (swamp-muck) from the neighborhood of New Haven, (containing when fully dry 68 per cent. of organic matter,) which is highly prized as a means of improving the porous hungry soils in this vicinity, and which when drained grows excellent crops, is capable of absorbing 1.3 per cent. of ammonia, while ordinary soil absorbs but 0.5 to 1 per cent.

"The great beneficent law regulating these absorptions appears to admit of the following expression: *those bodies which are most rare and precious to the growing plant are by the soil converted into, and retained in, a condition not of absolute, but of relative insolubility, and are kept available to the plant by the continual circulation in the soil of the more abundant saline matters.*

"The soil (speaking in the widest sense) is then not only the ultimate exhaustless source of mineral (fixed) food to vegetation, but it is the storehouse and conservatory of this food, protecting its own resources from waste and from too rapid use, and converting the highly soluble matters of animal exuvia as well as of artificial refuse (manures) into permanent supplies."

#### CULTIVATION OF WHEAT.

In writing on the cultivation of wheat, we are oppressed with the conviction of the utter impossibility of giving specific directions adapted to the various soils and circumstances of our numerous readers. We can discuss only general principles, leaving their application to the common sense and experience of intelligent farmers.

It is, too, impossible to disconnect the cultivation of wheat from the cultivation of other crops. Wheat *can* be grown on some soils year after year, without any intervening crop. But while we must abandon the old idea of the *absolute necessity* of rotation of crops, there is abundant evidence of its importance in increasing the productiveness of the soil;—in fact, in the present state of agricultural science, much of our success depends on judicious rotation. We are too apt to forget the influence of any particular crop on the soil and its effect on such crops as are to follow. For instance, a crop of timothy hay may yield considerable immediate profit, while a crop of clover, depastured by sheep may yield very little if any direct return; yet taking into consideration the effect on the following crops, the clover may be the most profitable in the end.

Wheat on many farms is the main crop—the cream—the flower—the ultimate aim of the farmer. All his operations bear on this one object. We can not isolate wheat culture, and give a good article on the subject, without taking into consideration other farming operations. In a new country, where the soil abounds in the food of wheat we may turn up the rich earth and scatter the seed, anticipating a good return of the "staff of life;" but as agriculture advances, its operation become more and more complex, and he who would become a successful wheat grower must enrich the soil—must grow crops which impoverish the soil but little, and which, when fed to animals, produce rich manure.

The direct application of manure to wheat is not generally advisable in this country; it is apt to produce too much straw. It is better to manure preceding crops, or at least apply the manure so that it will be thoroughly decomposed and incor

rated with the soil. Or perhaps we shall better convey our meaning by saying that it should be so plied that the soil will have time to *digest* it, to under it part and parcel of the soil itself. It may thus not only furnish proper food for the plants, but also aid in developing the elements lying latent in the soil. Summer-fallows and lime have probably this effect to a considerable extent.

In this section, since the advent of the midge, the principal aim of the wheat grower is to get an early crop. It is now generally admitted that if we could get our wheat from five to ten days earlier, we should pretty much escape the injurious attacks of the midge and mildew. To do this, we must make the soil rich in appropriate food, sow early and of early varieties, and avoid all low, late sown, and such as is not naturally or artificially underdrained. Sow a less breadth of land, and expend more care and labor in its preparation. The midge has compelled the farmers of Western New York to the adoption of this course of late sowing, and the result is manifest in the improved crop of the present harvest. We fear that the success of those who have grown wheat on good land will induce farmers to sow more extensively this year, and without adequate preparation. We have long strenuously contended that there is no necessity of abandoning wheat culture in Western New York—that if we would farm better, good "Geneese wheat" could still be raised. The danger was, three or four years ago, that farmers would despair of again raising wheat and give up attempts to resist the ravages of the midge. Now that those who have raised wheat on their best land, cultivated in an improved manner, have this year met with much encouragement, the danger is that farmers will again sow too much land to wheat, and be less careful in regard to its cultivation.

In England, wheat is generally sown on clover plowed up just previous to sowing. Here the practice does not answer. Wheat is sown much earlier here than in England, and pasture land turned up and sown immediately is generally so sown that the seed fails to germinate. It is found, too, that in this way the wheat is smothered with grass and weeds the next summer. We must prepare a good seed-bed, or what old JETHRO TULL quaintly termed a good *pasture* for the plants to feed in. The soil must be made mellow and moist for the free use of the plow or cultivator. On heavy soils, there is no better preparation for wheat than a good summer-fallow. (See an article on this subject in the June number.)

Wheat likes a firm, compact soil; and if left somewhat rough and cloddy, it is none the worse. It is easy to make the surface too fine and smooth for wheat. The best English wheat growers seldom plow deep for wheat. This may arise from the fact that they usually manure their wheat, or else feed off the previous crop of clover with fattening sheep, which not unfrequently have a pound of oil-cake per head each day. It is not considered desirable to bury this manure too deep. We have seen a crop of wheat that would average forty-five bushels per acre obtained from a clover sod so treated that was not plowed more than three inches deep. The method adopted is to plow deep, in the autumn, for turnips, once in four years; but not to plow deep either for wheat or barley. There may be exceptions to this, but such is the rule.

We can not too frequently repeat the incontrovertible fact that freedom from stagnant water is an indispensable condition of a good wheat soil. If the land is wet, cold, and sour, a good crop of wheat, however well it may have been planted in, need not be expected. If you must sow such land, plow it into high narrow ridges—say twelve feet wide—with a gentle slope from the crown to the dead furrow on each side, so that the surface water can readily pass off. Harrow lengthwise, and form open drains through the lowest parts, to carry off the water. On more porous or gravelly soils, the ridges may be wider and flatter; but it is always advisable to clean out the furrows with a plow after sowing, so that the water can pass off more readily. How seldom do we see a wheat field on which the water does not lie on some portions, presenting a sheet of ice during the winter and early spring, and bare spots or light and late crops in summer, but which might easily be removed by a few surface drains. If you can not afford to underdrain, do not neglect at least surface drainage. True, it is very inadequate; but it is better than nothing.

In regard to the time of sowing, there is much difference of opinion. If we sow too early, there is increased danger from the attacks of the Hessian fly, which deposits its eggs on the young plants in the fall; and if we sow late, the probability is that the midge (which deposits its eggs in the grain when in flower) will destroy it. Five years ago, in this section, many farmers sowed their wheat the last week in August, and it was much injured by the Hessian fly. From the 1st to the 10th of September is now considered the safest time. As we go south, the wheat is sown later. A recent writer in the *Valley Farmer* recommends sowing

a strip of one or two acres of wheat about the middle of August, so as to be well advanced when the bulk of the crop is to be sown, and then turning this strip under with the plow after the rest is sown, and re-sowing it immediately.

We have always been in favor of rather thick seeding. A few years since, HEWITT DAVIS and other English writers contended that by dibbling in the seed a foot apart, one peck to the acre was amply sufficient. That good crops were obtained in this way, there can be no doubt; but still it was found that those who practiced such thin seeding frequently had several acres where the crop was destroyed or much injured. The loss on these portions more than counter-balanced the gain from the saving of seed on the whole breadth of land sown. Thin seeding was a new thing, and the successes were paraded in the public papers, while little was said of the failures. HANDY, of Exeter, and MERRI, of Tiptree, still advocate thin seeding; but the majority of English farmers prefer to sow plenty of seed, in order to guard against the numerous casualties to which wheat is liable.

We do not need to sow as thickly in this country as in England, owing perhaps to the fact that we sow so much earlier; but still the same remarks hold good here. We must sow more than would be absolutely necessary provided everything was favorable, in order to insure plants enough under all circumstances, whether favorable or otherwise. Is it not true, too, that wheat thin on the ground is apt to be late? In this section we should not sow less than two bushels per acre broadcast, or one and three-fourths bushels with the drill.

In regard to drilling, we do not think the advantages are so decided or so numerous as is generally claimed. A standard English author, and a practical farmer of great experience, asserts that unless wheat is hoed there is little if any advantage in sowing it in drills. This may be so in England; but in this country, where we have not infrequently very dry weather about the time wheat is sown, there is one advantage in drilling which should not be overlooked—it deposits the seed evenly and below the dry surface soil, and thus insures immediate and more regular germination. There are no better wheat growers in the United States than JOHN JOHNSTON and ROBERT J. SWAN, of Seneca county, N. Y. Their farms adjoin; are both thoroughly underdrained; both summer-fallowed in the best manner. In 1856, a drouth set in at the time of wheat sowing, in September. Mr. SWAN sowed his wheat with a drill; Mr. JOHNSTON broadcast. Mr. SWAN's drilled wheat came up

thickly and grew luxuriantly, while Mr. JOHNSTON's was thin, and he found that "none of the seed vegetated except that deepest in the ground;" and he is of opinion that had he sown with the drill, he would have gained, "in all probability 500 or 600 bushels of wheat." (See *Genesee Farmer* for November, 1857, page 338.) This, from such a man, is strong testimony in favor of drilling—when the soil is dry at the time of sowing.

We have written so much in regard to manure for wheat, that nothing further need be said at this time. Of all artificial manures, we know of none that can be profitably used on wheat, except *Peruvian guano*; and it is very doubtful if this pay when wheat sells for less than \$1.50 per bushel. If our readers wish to test the matter for themselves, sow from 200 to 300 lbs. of guano broadcast before or at the time of seeding. Do not let it come in direct contact with the seed. Be careful to get Peruvian guano, and do not be persuaded into buying any of the numerous phosphatic guano now in market. In most cases, for wheat, they are not worth the freight charges.

JOHN JOHNSTON finds that a barrel of salt per acre has a decidedly good effect on wheat on his soil—increasing the growth and the early maturity of the crop. The good effect of the salt is probably owing to its increasing the solubility of the double silicate of alumina and ammonia in the soil and of course the salt would have little effect on such poor soils as do not contain this or similar substances. It does not follow, therefore, that salt will in all cases be beneficial on wheat. But it can do no harm, and every farmer might readily test the matter for himself. Mr. J. sowed the salt at the time of seeding, but agrees with us in thinking that if sown earlier it would be better.

**HAY FOR SHEEP AND FATTING STOCK IN SUMMER**—Hay might be profitably given to stock that are being fattened on grass. It is a well-known fact that an exclusive diet of green food will not fatten animals as well as a variety of different materials. In Australia, animals always attain their best condition in the partly burned up grass of mid-summer. It is an old saying, "Sheep do better on roast meat than on boiled."

**EXTIRPATING THISTLES FROM GRASS LAND.**—It is said that the use of the roller is a most effective method of getting rid of thistles as well as mullein and other large weeds. No doubt the scythe makes a "clean sweep;" so does the surgeon, when he cuts off a leg; but let a crushed limb remain attached to the body, and the end will be mortification and death.

**EARLY VARIETIES OF WHEAT.**

The earlier varieties of wheat this year suffered most from the great June frosts—many crops of Mediterranean and other early kinds being materially injured. But this is an unusual occurrence; and it must still be regarded as one of the main objects of the wheat grower to get early varieties. It is the only means known at present of escaping the attacks of the midge or weevil.

Wheat at the south ripens earlier than with us; and when brought north, it still retains a tendency to ripen earlier than the same variety grown here. The reverse is true of corn, because corn ripens earlier at the north than at the south, but the principle is the same in both cases. English gardeners get the seed for their earliest peas from France. It is also well known that barley grown on sandy soil in the warmest parts of England will ripen earlier on the cold hills of Scotland than the same variety grown from seed which has passed through several successive generations in the colder climate.—

KNIGHT states that the crops of wheat on some very cold and high ground, which he cultivated, ripened much earlier when he obtained his seed wheat from a very warm district and gravelly soil which lies a few miles distant, than when he employed the seed of his vicinity.

Several farmers in this vicinity obtained wheat from the south last year, and so far as we have seen and heard, the result has been satisfactory—the wheat is certainly much earlier.

**BOUGHTON WHEAT.**—This is a very early wheat, raised in Virginia, where it is highly spoken of on account of its early maturity and hardiness. Mr. CHARLES WRAY, of Gates, in this county, obtained a bushel of seed of this variety from Baltimore last year, and the crop was harvested on the 6th of July. The ears are not large, but were well filled with good, plump, thin-skinned berries. It is a white bald wheat, heavy but not large; straw stiff and of medium height. We annex a cut (fig. 1) of an average-sized ear. The crop was not



FIG. 1.

affected by the midge, while some wheat of a later kind grown in the same field was much injured.

**DAYTON WHEAT.**—This is another early variety, introduced into this section from Ohio. ELISIA HARMON, of Wheatland, N. Y., has 70 acres, which ripened sufficiently early to escape the midge, and it is thought will average over 30 bushels per acre. It is a bald white wheat with red chaff and short stiff straw. The seed was obtained from Ohio, and it is undoubtedly better to get wheat grown in Ohio, or further south, than to sow that raised here.

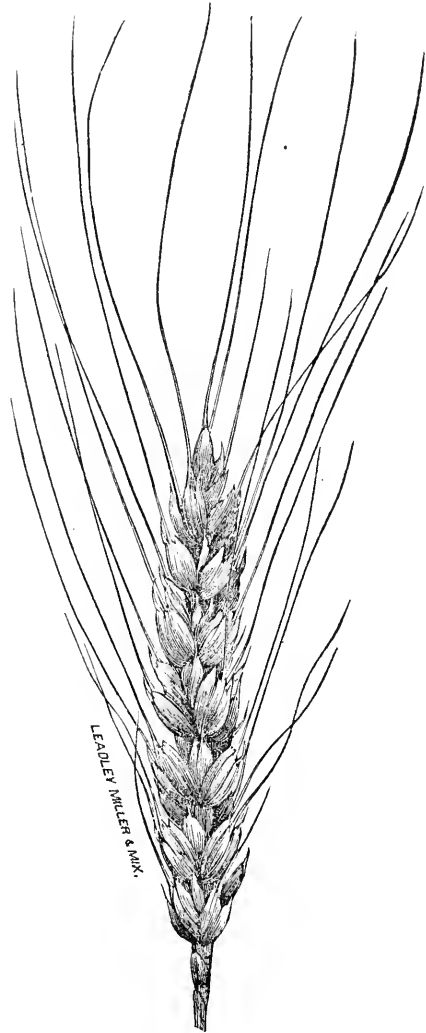


FIG. 2.

**GOLDEN DROP.**—This variety has been raised in this vicinity for two or three years, and is highly prized. An unknown friend sent us some good-sized well-filled and perfectly ripened ears on the 11th of July. We annex a cut (fig. 2) of one of them.

**MAY WHEAT.**—H. L. BROWN, of Boonville, Mis-

souri, last year sent JOHN JOHNSTON, of Geneva, N. Y., some of this wheat. Mr. J. states, in the *Country Gentleman*, that it came into ear a week earlier than the Mediterranean, but ripened about the same time. He had 32 acres of Mediterranean cut on the 12th of July. He has seldom known wheat to ripen so slowly as this year—more like it does in Great Britain. When it came into ear he expected harvest ten days earlier.

The attention of farmers is now fully aroused to the importance of getting early varieties of wheat, and many will undoubtedly send south for seed. It is important that they should get the best and earliest kinds grown in the south. FRANK G. RUFFIN, Esq., of Richmond, Va., has kindly undertaken to send us a description of some of the best varieties grown in that section, but we fear it will be too late for insertion in this number. We hope to give the article, with engravings of the varieties, next month.

#### SMUT—PICKLING SEED WHEAT.

SMUT in wheat is caused by a parasitic fungus, which breaks out on the ear and decomposes the starch and gluten of the grain, and fills it with a fetid black powder. Smut is usually caused by sowing seed to which, though invisible, the spores of the fungus are attached, and the remedy for the evil consists in destroying these spores before sowing the seed wheat. Moistening the grain with chamber lye and then drying it with quick lime, is perhaps the oldest and most popular English remedy. Salt and water instead of lye is also used, drying the wheat with lime as in the former case. But the best remedy yet discovered is to wash the seed wheat with a solution of blue vitriol (*sulphate of copper*). For each bushel of seed, dissolve about three ounces of blue vitriol in one quart of hot water. Let it cool before using. Spread the wheat out on a floor, about six inches thick, and sprinkle the solution equally over it, and then mix thoroughly with shovels until the wheat has acquired a uniform degree of dampness. It will be ready for sowing in two or three hours, but it is better to perform the operation a day or two before sowing. When treated in this way, lime should not be used, as it decomposes the vitriol and does harm rather than good.

AUTUMN-PLANTED ONIONS.—Onions for seed should be planted in October; and, like their more brilliant, but less perfumed, friends of the tulip and hyacinth connections, they will thoroughly root themselves during the autumn and mild winter weather, and be ready for early work the moment the frost rises from the ground.—H. W. Beecher.

#### PASTURING HORSES.

Few of the writers who have discoursed upon the management of horses, have said anything about the summer grazing of these animals. Nor, in fact, is it a subject upon which much of importance can be said. Yet there are some points connected with it, well worthy of consideration. YOUTATT says: "The spring grass is the best physic that can be given to a horse. To a degree which no artificial aperient or diuretic can reach, it carries off every humor that may be lurking about the animal. It fines down the roundness of the legs, and, except there is some bony enlargement, restores them to their original form and strength. There is nothing so refreshing to their feet as the damp coolness of the grass into which they are turned, and nothing is so calculated to remove every enlargement or sprain, as the gentle exercise which the animal voluntarily takes while his legs are exposed to the cooling process of evaporation that is taking place from the herbage on which he treads. The experience of ages has shown that it is superior to all the embrocations and bandages of the most skilful veterinarians. It is the renovating process of nature where the art of man fails."

From this, it will be seen that the benefits to be derived from pasturing horses are considerable.

A recent writer in the "*Mark Lane Express*" says: "The condition in which working horses are usually kept the latter part of winter, is perhaps no bad preparation for summer grazing. It is, however, desirable that the little remaining flesh these animals carry should be still further reduced, so that the change of flesh they obtain may be, as far as possible, a renewal, and with it a renovation, of the vital power or constitution of the horse."

It is a matter of some importance what kind of grass horses are grazed upon. Many graziers think it undesirable to turn horses into clover when it is rank, and near or in blossom, believing it renders them liable to lay on flesh too fast, and become "pot-bellied," as it is called; and that if they are driven or ridden during the day, it makes them perspire heavily, and more apt to become broken winded, or roasters. White clover, particularly, is not good for grazing horses upon. It has a tendency to cause the excessive salivation commonly known as "slobbering," which weakens the animal, and brings him down in condition, even though he should be unemployed. This is most particularly the case in the latter part of the summer and autumn, when the white clover is putting out its second blossoms; young red clover is also liable to

the same objection at this time. The best pasture for horses is generally considered to be timothy, red-top, blue-grass, or any of the finer meadow grasses. Timothy, however, is injured by the close bite of horses, if they are turned into it during the early part of the season; but after it has blossomed, it has been cut, the tender leaves that then spring up are just the thing for horses. If horses are to be turned into clover, it is best to be done after cattle have eaten it down, as horses prefer a short sweet herbage. Horses that are to be kept steadily at work through the summer, are better to be fed on dry food and grain, with an occasional feed of cut grass; but if it were possible, every horse should have a month's run at grass during the summer season, and he will come out almost a new animal.

When young colts are kept at grass, they should be placed in a pasture among either cattle or sheep, but not older horses, as they love to graze those precise spots not well relished by other stock, and from their playfulness they are apt to get kicked or bitten.

It is a good plan to have the shoes taken off such horses as are intended to remain for some time at pasture; it prevents contraction of the hoofs, and renders them less liable to injure one another while tramping about the fields.

Mares with foals by their sides are always better to be kept in pasture, even if they are worked occasionally; and it is desirable, where they are to be worked, that they should be accustomed to have their foals in the pasture while at work, allowing the foal to get to them only at noon, and after working hours. It is well to give the mare a feed of oats daily for a short time previous to weaning the foal. Let it be given to her in such a manner that the foal can be induced to partake of it, so that the feed may be continued to him when weaned, as it is then essential to compensate him for the loss of the milk of his dam. If the colt is expected to turn out a superior animal, and the mare is not wanted to work, it will be conducive to that end that he should be allowed to run with the dam till he is a year old, before weaning, and then have drink of new milk, fresh from a cow, given to him daily during the ensuing season. Yearling colts should always be well taken care of during the first winter—well housed and well fed—to keep them growing. It is poor policy to turn to grass a yearling colt in poor condition, thus rendering him peculiarly susceptible to contract catarrhs, swelled lungs, bronchitis, pneumonia, roaring, &c., and liable to scouring, colic, inflammation of the bowels, &c., resulting in permanent bodily weakness, or

even death, unless subjected to the most careful treatment. Two-year-olds are by no means to be so much cared for. Give them good pasture, plenty of room and water, and they are sure, if healthy, to grow and become fat. If intended for sale at the end of the season, they may be pushed forward still more by a feed of oats given daily.

Soft water is always to be preferred to hard spring water for horses; and the water of a pool, or brook, to that of a well. In warm summer weather, it is better not to give the animal cold water, fresh from a well, but to have it turned into a trough and allowed to stand some time before he drinks it.

Horses that are worked should never be allowed to remain in a pasture at night when the weather becomes chilly or wet, especially in autumn.

#### SPIRIT OF THE AGRICULTURAL PRESS.

WHY SOWS DESTROY THEIR YOUNG.—A writer in the *Homestead* argues that costiveness, and its accompanying evils, are the cause of sows destroying their young, and says that green food, such as clover or roots, given daily for three weeks before littering, is the best preventive of the evil. If no green food is to be had, then a table-spoonful of sulphur, given two or three times a week to a sow, is beneficial, as also is charcoal. Corn, corn meal, or any kind of heating food, is injurious at this time. Sows should be kept separate from other pigs for at least a month before littering.

HOW TO PREVENT HORSES BITING THEIR CRIBS.—A correspondent of the *New England Farmer* says that he has known the most obstinate crib-biters effectually cured by turning them out into the yard for an hour each day. He says, allowing a horse to roll every day, will prevent his getting into the habit of gnawing at everything within his reach.

HEATING NEW MILK.—The *Dairyman's Record*, an unpretending but useful little sheet, published at Little Falls, N. Y., has lately published several valuable articles on dairy management. It gives the opinion that the heating of new milk to near the boiling point, just after it is drawn from the cow, is preferable to allowing it to stand for a time before heating, and thinks both butter and cheese are improved in flavor by so doing, "because the animal odors which are objectionable would be expelled;" and goes on to say that "tasteless and leathery" cheese is caused by manufacturing under too high a temperature rather than from high heating before manufacturing.



**HOG CHOLERA.**—A correspondent of the *American Agriculturist* says that this disease should be called "stoppage of the issues." There is on the inside of the fore leg of every hog, opposite the knee joint, three small ducts or pipes, which connect directly with the lungs of the animal. In every healthy hog there is a continual discharge, from these issues of a thick offensive matter, causing the hair to look greasy around them. If these issues get stopped, as they often do, the hog will die in a short time, unless they are opened, which is done by inserting a wire the size of a knitting needle into the issues from ten to twelve inches, taking care not to punch through the membranous lining near the lungs. After the opening process is done, anoint the inside of the leg with salt grease, and rub with a corn-cob until the skin looks very red, and in nine cases out of ten, if done in season, the cure is effected. Hogs that are confined in small pens, or together in large numbers, are most liable to this disease, and they have never been known to be affected by it where they have plenty of room and free access to a brook or rivulet, of clear running water. Is this so?

**MILLET FOR FOOD.**—A correspondent of the *Southern Homestead* says that in Germany millet is extensively used as food for man. It is first hulled by a small machine with two iron rollers, one of which is turned by a crank, and the seed falls into a box like a chess box in a fanning mill. After the seed is cracked, and the hull and chaff separated from it, the grain is boiled in milk like rice for puddings, &c. It requires but a small quantity to be used at a time, as it swells or thickens up exceedingly. It may be seasoned with butter, sugar, &c., the same as for rice.

**WEEDS—THEIR IMPORTANCE.**—The *Valley Farmer* says weeds are a blessing, and cause materially the fruitfulness of the land, and that, were it not for them, the land would not be half cultivated, nor the surface of the ground be broken during the growing period of garden vegetables, and farm crops.

**UNDERDRAINING WATER MEADOWS.**—It is said that at the home farm of the Duke of Newcastle, thirty acres of water meadow have been broken up within a few years, and after being thoroughly drained, were again laid down to grass on the most approved principles. These meadows now produce four crops of green fodder annually, where but a short time ago there was nothing to be seen but coarse sedge grasses and rushes. The progress of improvement has been so marked that forty acres more are now being put into the same condition.

**FARMING IN ENGLAND AND FRANCE.**—SANFORD HOWARD, of the *Boston Cultivator*, is now visiting Europe, and makes the following comparisons between these two countries. In England the fields are mostly square, divided by green hedges, and each is devoted to a particular crop. In France, the land is cultivated in narrow strips, without fences, except by the roads. It is not uncommon to see strips of wheat, oats, lucerne, clover, and the different kinds of vegetables, each of a rod in width, along-side each other, and all belonging to the same person. In England, the numerous flocks and herds add beauty to the landscape. In France, you may travel for miles without seeing a sheep or cow. England strives to produce all the meat she can, and by so doing increases the fertility of her soil. France keeps the smallest number of domestic animals she can get along with, and consequently decreases her productive powers. England raises turnips and other root crops largely. France raises hemp, tobacco, and the cereal grains. The crops of the two countries show the immense superiority of the English system. The very grass of England is more luxuriant.

**A WEED LAW.**—The *Ohio Farmer* calls for the passing of a stringent law to compel the destruction of noxious weeds by every person on the land he owns, before the seeds are ripened, the penalty of non-performance to be a fine to go to the school fund. The same paper says that traveling threshing machines are "evil monsters"—they distribute vile seeds everywhere; and that the farmer who employs them regularly, will soon find that by their free carrier system he will get weeds among his grain.

**A CURE FOR SHEEP-KILLING DOGS.**—The *Wisconsin Farmer* says it intends to persist in asking for an anti-dog law; and, till it is passed, recommends farmers who are troubled by dogs killing their sheep, to get a dime's worth of strychnine and put it into a gash cut in a mouthful of fresh meat, to be left where the dog is likely to get it. He is not likely to be troublesome again. We knew a gentleman who tried sprinkling some strychnine on the skinned body of a sheep left in the field, and the next morning there were thirteen dogs lying dead around it.

**HUNGARIAN GRASS.**—HON. A. B. DICKINSON, writes to the *Country Gentleman* that the "Hungarian grass of last year, and the honey blade grass of this year, is nothing more than what was known as millet, forty years ago—what was cultivated as barn yard or summer grass seventy-five years since, and 'the meanest grass of all that grow.'"

**CHANGING SEED.**—A writer in the *New England Farmer* says his potato crop has increased from fifty to one hundred per cent., by procuring seed potatoes which grew on an entirely different soil, fifteen or twenty miles apart from his. This plan of changing seed every year is a good one, either for potatoes or any other seed, such as grain and garden seeds; and even if the change is made only between cultivators in the same vicinity, it is still beneficial.

**FLOWERING OF POTATOES.**—Mr. MANBY, of England, in his prize essay on the cultivation of early potatoes, says that a flower to an early potato is considered as a sign of deterioration—the first symptoms of *growing out*—it being considered that the plant should be thrown into perfecting the tuber and not the seed. He would therefore eradicate the flowers as soon as they appear, and save tubers for seed from such plants as have shown no indication of flowering. Experiments prove that potato plants showing a tendency to flower, perfect their tubers less early than those which do not show that tendency.

**HIGH PRIZES FOR STOCK AND GRAIN.**—In the *Valley Farmer* is a list of the prizes to be given at the Fair to be held at St. Louis, Mo., from September 26th to October 1st. Among the prizes are: \$1,000 for the best thorough-bred bull of any kind; \$1,000 for the best roadster stallion in harness; \$1,000 for the best thorough-bred stallion; \$300 for the best steam plow; and four prizes of \$125 each, and two of \$100 each, for the largest and best crop of Wheat of named varieties.

**DOG TRAPS.**—The *Southern Planter* says: "Make a pen of fence rails round a sheep that has been killed by dogs, beginning with four, so as to have it square, and as you build it, draw in each rail as you would the sticks of a partridge trap, until your pen is of sufficient height—say five feet. In this way a pen may be constructed that will permit a dog to enter at the top, but out of which he will find it difficult to escape, should he have the agility of an antelope. Leave the dead sheep, or a portion of it, in the trap, removing all others from the field, and you will be pretty sure to catch the marauder the next night or the night after."

**WHEAT GAMBLING.**—The *Milwaukee Sentinel* says that some idea may be formed of the extent to which gambling in wheat is carried on, when it is known that for some weeks past the reported sales of wheat have ranged from 40,000 to 80,000 bushels per day, while the actual receipts seldom exceed 15,000 bushels. Some of the largest operators never in reality own a bushel of wheat.

**BEEES IN CALIFORNIA.**—The *California Farmer* says there is something peculiarly strange in the habits of the honey bee in California. After a hive has sent out one, two, or three swarms, the bees of the first swarm send out other swarms again; thus giving, in a single season, *grand-swarms*. One party who commenced the present year (1859) with seventeen swarms, has now seventy-eight. Another, who commenced with twenty-one, now has one hundred and seventeen.—These facts are worthy of note by naturalists.

**JAPAN WHEAT.**—The *Rural Register*, a new and valuable agricultural journal, recently started at Baltimore, gives an account of this wheat. The seed was obtained from the Patent Office, and sown in Baltimore county, Md., on the 16th of September last. Many of the roots had fifty heads springing from them, each containing about sixty grains. It headed out on the 30th of April, and was cut on the 21st of June, though it was fit to cut a week earlier. Some of it was sown on the 21st of March, in order to attest its adaptation for spring sowing, and was in bloom on the 27th of June.

**HILL WHEAT.**—In the *Germantown Telegraph* is an account of a seed wheat recently raised in Huntermark, Pa., called *hill* wheat. It was grown and cultivated in hills like corn, and required only 3 to 5 lbs. of seed to plant an acre. It is not yet ripe, so the yield per acre is not given. It is claimed for it, that by this system of culture, wheat will come to be accounted as a cleaning crop. This wheat is said not to be liable to injury from rust, smut, worms, or lodging after heavy rains; the heads are large, and the grain more perfect, than in any other kind.

**GUANO ISLANDS.**—The *Pacific Commercial Advertiser* (Honolulu) of May 12, 1859, which has just come to hand, remarks on an article that appeared in the *New York Tribune* last March, on the subject of the Guano Islands in the Pacific: "Arthur's, Favorite, and Farmers' islands do not exist. Walker's, Sarah Ann, Samarang, and David's islands are of doubtful existence, although laid down upon the charts. Flint's, Clarence, Duke of York, Rierson's, and Humphrey's islands, are all inhabited, and possession of them can not very well be taken by foreigners. Sydney island is covered with trees. Christmas and Caroline islands are partly covered with cocoa nuts, and are known not to possess guano. There may be guano on many of the other islands claimed, but the best deposits will probably be found to exist on small rocky islands, as yet perhaps undiscovered."

**AFRICAN OATS.**—The *New Jersey Farmer* gives an account of a new kind of oats recently grown in Lawrence township, New Jersey, sown on the 28th of March, which was fully in seed and was expected to be harvested on the 20th of June. The seed came originally from Cape Town, South Africa. It matures in eleven weeks, and will admit of two crops being grown in one year on the same ground. The yield is bountiful, and the seed took the first prize at the New Jersey State Fair last year.

**LAMBERT AND ORLEAN WHEAT.**—In the *Ohio Farmer* of July 16th is an account of two new varieties of wheat grown within the last three years in Muskingum county, Ohio. One, called *Lambert* wheat, is said to be "weevil proof," and yields well. The other is known as *Orlean* wheat, and ripens so early that it has never been injured by rust or weevil. This kind is said to equal the *Kue-stem* in productiveness, and has been a good deal disseminated last year in Ohio, Virginia, Pennsylvania, and Maryland.

**THE ROCKY MOUNTAINS.**—HORACE GREELY says: "The glorious Rocky Mountains are themselves worth a visit. They are not a *range* merely, but a chaos of mountains three hundred miles broad, with their forks, their snowy peaks, their grassy hill sides, their ravines, and their glorious forests. Such clean sweet miles on tails of fragrant soft-whispering pines you never imagined. The air is gloriously pure, the hill sides dotted with springs, the ravines musical with running streams that never dry up."

**AUSTRALIAN ITEMS.**—We have received copies of the *Sydney Morning Herald* to April 13th, 1859. An expedition has just returned from exploring the country to the W. N. W. of Lake Torrens, and report the discovery of extensive tracts of country in the interior, well adapted to pastoral and grazing purposes. Several individuals are about proceeding thither with large flocks of sheep and cattle, to form the nucleus of a settlement.

Capt. CADELL has just succeeded in navigating a small steamer up the river Darling, a distance of 600 miles from its mouth, at the time of low water, thus proving the possibility of opening up a means of transporting the staples of the country—wool and tallow—from the far interior to the seaboard via the Darling, Murrumbidgee, and Murray rivers, at a title of the present expense.

The spirited introduction of the Alpaca into Australia by Mr. LEDGER, after five years hard battling with the prejudices of the Peruvian government, is but little appreciated by the colonists, no one

having been found willing to purchase or take the responsibility of breeding and raising them.

The following are the latest quotations given of the wholesale prices at Sydney: Wool, best grades, 42 to 50 cts. per lb.; tallow, \$225 to \$250 per ton; Irish butter, 80 cts. per lb.; cheese, 25 to 30 cts. per lb.; American lumber, \$5 per 100 feet; cocoa nut oil, \$155 per ton; cured hides, \$4 each; wheat, \$1.85 per bu.; Colonial flour, \$95 per ton; American flour, \$10.50 per bbl.; maize 95 cts. per bu.

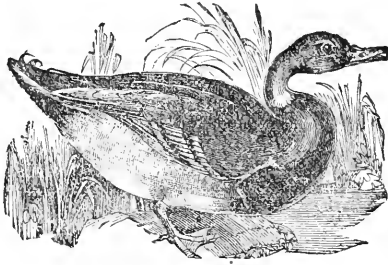
#### DUCKS—THEIR MANAGEMENT, &c.

EVERY farmer should keep a few of these beautiful and useful birds. Those who wish to rid their gardens and orchards of many of the numerous pests that infest them, in the shape of snails, slugs, beetles, grubs, and caterpillars, have only to keep a few ducks, and allow them free access to the plants and beds. So long as an insect is to be found, they will not touch the fruit or young plants.

The domestic duck is acknowledged to have originated from the common wild duck or Mallard (*Anas boschas*) of Europe. The wild and tame ducks to this day will freely intermix and breed with each other; and by thus crossing the domesticated bird with varieties of its wild cogener, have originated the many different varieties we now see. Occasionally, we have known all the ducks in a neighborhood to resume their independence, and, by some unknown concert among each other, several flocks will rise on their wings at the migrating season in autumn, and, under the leadership of some old drake who has been to the wars, they will all unite together and wing their way to the southward, to spend the winter in a more genial clime, among the swamps of Louisiana or Carolina. Such was the case with ours in the fall of 1851, when several hundreds joined together and made tracks to the south, "nary one" of which has yet returned to give an account of his travels, probably thinking that liberty in obscurity is better than fame acquired at the sacrificial altar. Ducks never feel themselves at home about the farm or garden, unless they have free access to water in some way or other; and that is the most certain way of providing against their sudden departure to parts unknown.

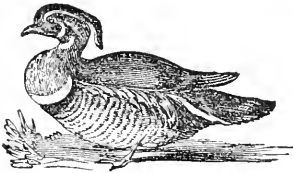
There are many varieties now domesticated, and we give cuts and descriptions of the most prominent among them.

THE MALLARD or common wild duck, is very widely disseminated, both in Europe and America,



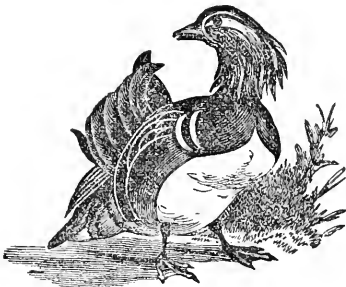
THE MALLARD DUCK.

and may be found in abundance on all our rivers, ponds, and lakes, from Hudson's Bay to the swamps of Nicaragua. It is a large, handsome bird, and is readily tamed and kept with the domestic bird.



THE WOOD DUCK.

THE WOOD DUCK is another variety highly esteemed for the beauty of its plumage and the exquisite flavor of its flesh. It is a native of America only, and is a very solitary bird, being generally seen in pairs in the deep shady recesses abounding on our smaller streams and ponds, or among the tall reeds of Long Point Bay on Lake Erie. It is easily domesticated, and then forms a great ornament to the ponds of our pleasure grounds.

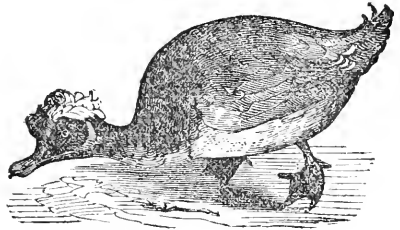


THE MANDARIN DUCK.

THE MANDARIN DUCK resembles in many respects our Wood duck, but is still more beautiful and gorgeous in the ever-varying tints of its plumage. It came originally from China, and is only seen here in a domesticated state, and specimens of it are still very scarce, and only to be met with among poultry fanciers or at shows.

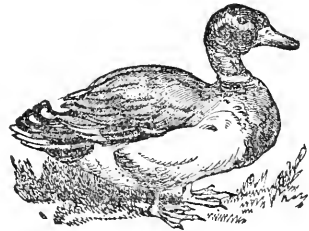
THE MUSK DUCK, erroneously called the Muscovy duck, is a native of South America, where it prin-

cipally inhabits Brazil. It is distinguished for a peculiar caruncled membrane of a red color covering the cheeks, and a white top-knot or crest.



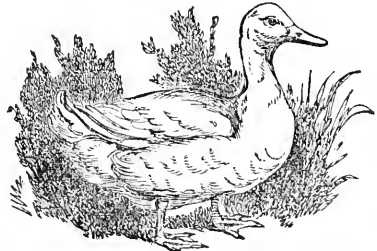
THE MUSK DUCK.

It is thought to be a different species from the common duck, as a cross from the two is usually sterile. They are larger than the common duck, especially the drake. They do not lay as many eggs as the common duck. They are great foragers and consume a great deal of vegetable food. Their flesh is said to be excellent when young.



THE ROUEN DUCK.

THE ROUEN DUCK.—This bird is derived from France, and is esteemed as the best of domesticated ducks, both for its flesh and its large size, a pair of young drakes often weighing 20 lbs. By epicures its flesh is esteemed the finest flavored of any. It has an ungainly, awkward appearance; eyes sunk into the head, and an unpretending plumage. It diminishes in size very much when crossed with other varieties. It lays very large eggs, and requires less food in proportion to its size than any other duck.



THE AYLESBURY DUCK.

THE AYLESBURY DUCK.—This is a beautiful bird, of a clear, unspotted, creamy-white color; a hand-

some carriage; and is not troubled with a constant quacking, like other ducks. It originated in England, where it is highly esteemed as a prolific layer and for the whiteness of its flesh, on which account it always commands the highest price in the markets. It is very fond of wandering away from home and taking a peep at outside shows. On the whole, it is deservedly a favorite.

#### THEIR MANAGEMENT.

Ducks are less troublesome to take care of than any other poultry. During the summer they may be left pretty much to take their own way, and should have a pond or trough of water to wash themselves in. They are very careless about their eggs, and during the laying season require to be shut up at night, in some outhouse or shed, where they can have free access to nest boxes, open in front, and not be let out in the morning till they have dropped their eggs. A good layer will drop 100 eggs in the season, if not allowed to take to sitting too early. When they have nearly completed laying their complement of eggs, they will go off into the fields or woods, and form nests for themselves, in which they will lay from ten to fifteen eggs, cover them assiduously, and not make their appearance again till the young ducks are hatched. A duck will take care of a great many more ducklings than she can hatch; therefore it is well to have some of the eggs put under hens, and, when hatched, an old duck, or even a drake, will readily take charge of the young birds along with their own brood. They should be shut up in a coop or small yard for a week or two after hatching their young, as it is decidedly injurious to allow the young ducklings to get to water for some time after they are hatched. They should have no more water at first than is necessary to quench their thirst. They should never have raw food when very young. Oatmeal porridge, or boiled potatoes mixed with boiled hominy or corn meal, are excellent. If livers or lights can be procured, boiled and chopped fine, they are the best food for ducklings.

Their greatest enemies, when young, are cats, rats, skunks, and crows; and if they escape all these, there is no fear but they will thrive. After they are two weeks old they may be allowed to run to water; and by the time they are four months old, and have had the gleanings of the hay and harvest fields, to get plenty of grasshoppers and grubs, they will be fit for the table of an epicure; and longer than that there is no necessity to keep them, unless for breeding, nor is the flesh of a full grown duck so fine flavored and juicy as that of a young bird.

In keeping them over winter, they should not be allowed to get their feet frozen by remaining out in the snow all night, nor be kept with other poultry, but rather have a place of their own, well supplied with straw and water, or be allowed to run under the barn, care being taken to keep out old red bushy tail, alias Reynard, and his confederates Mister Weasel and Master Skunk, the latter two of whom, however, would probably have a tough fight for it, should they attack the older birds.

#### NOTES FOR THE MONTH—BY S. W.

THE PENNSYLVANIA CENTRAL RAILROAD.—In my last notes, advertent to the sharp competition of this through railroad for the Chicago and other western freight, I said that such a ruinous contest by that mountain road could not last long without bankrupting the road itself. One short month has hardly transpired, when the managers of this Pennsylvania Central road announce their inability to pay the July interest on the bonds of the Fort Wayne and Chicago railroad, a part of its now consolidated line from Philadelphia to Chicago; but, with true railroad logic, the managers propose to overcome this difficulty by issuing *more* bonds! The repudiation of this road, which has been supposed to be in a sounder condition than the other lines, clearly proves that no road can withdraw the tide of freight from the great national highway to and from the great west, the lakes and the New York canal in summer, and by the Canadian and New York railroads in winter.

WATERLOO HORSE FAIR AND TROTTING.—Perhaps the greatest exposition of fine horses, with prize trotting, has lately come off at WRIGHT'S unique fair grounds, Waterloo, that has ever yet been witnessed at a fair in a Western New York village. Breeding mares and colts, two and three year old colts, single horses and mares, stallions, draft teams and matched horses, of the best pedigree and training, were here exhibited, doing great credit for equine excellence, not only to our Seneca county farmers, but to the farmers, horse breeders, and horse fanciers of the neighboring counties. Very liberal premiums were promptly paid on award for the best animals presented at the *concours*, according to their extra-merits in appearance, training and service. JOS. WRIGHT took the highest premium, \$20, for the best stallion, and also the highest for mares with colts; N. KELSEY, of Auburn, took the first premium for single horses; H. KIPP, of Fayette, the first prize for single mares; N. CHENEY, of Canandaigua, the first prize for matched horses; and a great many smaller premiums were declared for fine animals, both matched and single, very much to the encouragement of farmers generally to pay more and more attention to the improvement of their equine stock.

But the great exciting interest of the fair that brought so many thousands together, particularly on Saturday, the last day, was the trotting. The first heat of the course was for \$35, in two purses, \$25 and \$10, open to 4 year old colts, in harness, best three in five, mile heats. The first heat was won by "Grey Eagle," owned by D. CUTTERBACK,

of Seneca Falls, in 2.52; the next three straight heats were won by "Champion," owned by Wm. H. Ross, of Victor, in 2.48½, 2.49 and 2.57, but as "Champion" was 5 years old, young "Grey Eagle" was awarded the second prize. The next trot was for a prize of \$100, in two purses, \$75 and \$25. There were three entries for this purse, viz: "Jake Oakly," by Wm. H. SAUNDERS, of Syracuse; "Niagara," of Auburn, and "Lady Hanford," by T. J. SCOTT, of Rochester; the distance, two mile heats in harness, with wagon and driver to weigh not over 300 lbs., the best two in three. The first heat was closely won by L. E. CARPENTER'S horse "Niagara," first mile in 2.42; second heat by "Jake Oakly" in 5.89½, the first mile in 2.43½.

On the third day, Saturday in the afternoon, came off the struggle for the \$200, which was also in two purses, \$150 and \$50. At an early hour of the day the fair grounds were covered with a living multitude, and the now extended and covered terraced seats or amphitheatre contained its thousands, and the whole inside rail of the course was studded with farmers' carriages filled with their wives and daughters, the little ones clinked in; and as the trains of cars came in from the east and west, they ailed up at the crossing near the grounds to land their passengers. A Syracuse paper sets down the probable number present on the last day at 25,000—a high estimate. An equine walking match, two piped foot races, scrub-racing, and the sale of horses occupied the forenoon, when one fine horse was sold for \$600 by COBB, of Geneva, to MILLS, of Buffalo. Early after dinner, by way of interlude, that stalwart negro, Pompey Smash, drove Jos. WINGERT'S kicking mule around the course before a huge pair of wheels thirteen feet high; as he drove up in front of the amphitheatre, he addressed the ladies in his best Nigger English; this brought down the house. At 2 P. M. there was a green trot, best \$15, second \$5; time, inside of three minutes. Then a double team trot, two entries; first heat made in 3.3; second 2.57. Now came the trot for the main prize, mile heats, best three in five. "Jake Oakly," "Niagara," "Lady Hanford," and Jos. WINGERT'S breeding mare, "Iola," were the four contestants. They were required to trot in 2.40 to win. The first prize was won by "Jake Oakly," the Syracuse horse, in 2.32½. The second prize was awarded to Mr. WINGERT'S mare "Iola." It is said she might have won the first prize but for one baulk. This mare was only two lays from grass, hence her present performance shows what she may be fitted to perform. It is said the "Jake Oakly" has now beat both Courtland and Seneca.

THE JUNE FROSTS IN CHAUTAUQUE COUNTY.—In a letter from a Chautauque county farmer, who, smarting under the effects of the late frosts, demurs to my assertion that Indian corn will not do as well near the equator as 40 degrees north of it. When a boy I heard the captain of a Rhode Island slaver say that the Guinea corn was a small flinty affair, and Virginia corn (gourd seed) degenerated there because the nights were not short and hot enough. In the bight of Benin a cold white fog covers the land and marshes about the mouths of the rivers and along the coast, which is present death to every white man that is exposed to it; the miasma, it is true, favors vegetation, but corn

loves long hot days and short, warm dewy nights. This same writer says there is very little corn in the higher Chautauque, but plenty of scare-crows in the fields, and he saw eight men in one field planting corn on the 20th June; one farmer near Chautauque lake, with thirty acres, had plowed ten acres on which to sow corn for fodder to compensate for his frozen grass crop; locust and butternut trees denuded by frost; fruit damaged; the mercury fell to 22 deg. one morning at his house. He says one thousand cows in that region must be disposed of before winter, or there will be great bovine suffering. But heretofore the Chautauque farmers have made money fast, and they can well afford one adverse season. Some farmers even now make their sixty or seventy pound cheese daily, and the New Yorkers contract for all their butter by the season at 21 cts. a pound; while here in our less elevated warm dry region, no cheese is made, and our farmers have to sell their butter (yelped grease in New York) at 14 cts. a pound. Well may Chautauque rejoice in her grass growing climate, in spite of now and then a Siberian summer.

#### PLOWING vs. SPADING.

BARON VON LIEBIG, in his recent *Letters on Modern Agriculture*, says, "If the food of plants in the soil can not move towards the roots, it is evident that the roots must spread about to look for food."

"A piece of bone weighing about 30,000 milligrammes, (one ounce) in a cubic foot of earth, produces no marked effect on its fertility. But if these 30,000 milligrammes of phosphate of lime be uniformly distributed throughout the earth, it will suffice for the nourishment of 120 Wheat plants. Ten thousand milligrammes of food, having a surface extent of 100 square millimetres, are within the same given time not more effective than ten milligrammes having the same surface extent. Of two fields with the same amount of food, one may be very fertile, and the other equally unfruitful, if the food is more uniformly distributed throughout the former than the latter.

"*The common plow breaks and turns up the soil without mixing it; it only displaces, to a certain extent, the spots on which plants are already grown. But the spade breaks, turns, and mixes it thoroughly.*"

"As the smallest portions of food can not of themselves leave the spot in which they are held firmly fixed by the soil, we can understand what immense influence must be exerted on its fertility by its careful mechanical division and thorough intermixture. This is the greatest of all the difficulties which the agriculturist has to overcome.

"If a field is to produce a crop, corresponding to the full amount of food present in it, the first and most important condition for its accomplishment is, that its physical state be such as to permit even the finest rootlets to reach the spots where the food is to be found. The extension of the roots in every direction must not be obstructed by the cohesion of the soil. Plants with thin delicate roots can not grow on a tenacious heavy soil, even with abundance of mineral food. These facts explain in a very simple manner one of the many favorable effects of green manures on such soils, and enable

us to understand the reasons of the preference given in many cases, by agriculturists, to fresh, over rotten, farm-yard manure. The mechanical condition of the ground is, in fact, remarkably altered by the plowing in of plants and their remains. A tenacious soil loses thereby its cohesion; it becomes brittle, and more readily pulverized than by the most careful plowing; and, in a sandy soil, a certain coherence is introduced among its shifting particles. Each stem of the green manure plants plowed in, opens up by its decay a road by which the delicate rootlets of Wheat plant ramify in all directions to seek their food. With the exception of their combustible elements, the ground receives from the green manure plants nothing which it did not previously contain; and these of themselves would have no effect on the increase of the crop, without the presence in the soil of the necessary mineral food."

### DRAINING WET LANDS.

BEFORE many years there will be thousands of acres pierced with drains. But the inducements to it which make it wise in England and New England do not yet, generally, exist in the West. The expense of draining one acre would buy two. Many farmers have already more arable land than they can till to advantage. Land redeemed from slough would not pay for itself in many years.

But although a general introduction of draining would not be wise, there are many cases in which, to a limited extent, it should be practiced. Lands lying near to cities are sufficiently valuable, and the market for farming products sure enough, to justify the reclaiming of wet pieces of land. On small farms of forty and eighty acres, surrounded by high-priced lands, not easily procured for enlarging his farm if the owner should wish it, draining might be employed with advantage. A man with a small farm can afford expenses for high cultivation which would break a large farmer.

Some times a large meadow or arable field is marred by a wet slash through the middle of it; a farmer would not begrudge the labor of draining for the sake of having his favorite field without a blemish. Some times farms are intersected by wet lands, which make the passage from one part of the farm to another difficult at all times, and almost impassable at some seasons of the year. Draining might be resorted to in such a case, not so much for the sake of the land reclaimed, as for the convenience of the whole farm.

We know pieces of wet, peaty meadow land lying close by the farm-house, the only drawback to the beauty of the place. A good farmer would wish to recover such a spot for the same reason that he would prefer a handsome horse to a homely one—a fine horse over a coarse looking animal—a slightly fence, rather than a clumsy one. There is much strong land—but high, flat, and cold—which is wet through all the spring, resisting seed till long after other portions of the farm are at work, and which would, but for this backwardness, be regarded as the best land. If without great expense, such land could be cured, few farmers would mind the trouble or labor.

There are three kinds of draining which may be employed according to circumstances—subsoil-

plowing, furrow-draining and ditch-draining.—When a soil is underbound by a compact, impervious *subsoil*, all the rain or melting snow is retained in the soil until it can *exhale* and evaporate. For the subsoil acts like a water-tight floor, or the bottom of a tub. Subsoil-plowing, by thoroughly working through this under crust, gives a downward passage to the moisture; water sinks as it does in sandy loams. Nor will such treatment be less useful to prevent the injury of summer drought; for the depth of soil affords a harbor for roots from whence they can draw moisture when the top-soil is dry as ashes.

But there is a limit put to this treatment by the amount of clay contained in the subsoil. It has been experimentally ascertained in England, that when the soil contains as high as forty-three per cent. of alumina (clay) subsoil-plowing is useless, because the clay soon *coalesces* and is as impervious as ever. In such cases, if the land has a slight inclination in any direction, furrow-draining may, in some measure, relieve it. The ground is marked out in lands as for sowing grain and plowed with back-furrows, throwing the earth toward the centre. The rain and snow will run to either side, and flow off by the channels left between each strip. This treatment does not relieve the land, to any great extent, of water contained in it, but acts as a preventive, by carrying off the rain and snow before they are absorbed.—H. W. Beecher, in *Plain and Pleasant Talk about Fruits, Flowers, and Farming.*

### MAKE FARM LABOR FASHIONABLE.

At the base of the prosperity of any people lies this great principle—*make farm labor fashionable at home.* Educate, instruct, encourage; and offer all the incentives you can offer, to give interest and dignity to labor *at home.* Enlist the heart and the intellect of the *family* in the support of a domestic system that will make labor attractive at the homestead. By means of the powerful influences of early home education, endeavor to invest practical labor with an interest that will cheer the heart of each member of the family, and thereby you will give to your household the grace, peace, refinement and attraction which God designed a *home* should possess.

The truth is, we must *talk* more, *think* more, *work* more, and *act* more, in reference to questions relating to *home.*

The training and improvement of the physical, intellectual, social and moral powers and sentiments of the youth of our country, require something more than the school-house, academy, college and university. The young mind should receive judicious training in the field, in the garden, in the barn, in the workshop, in the parlor, in the kitchen—in a word, around the hearthstone *at home.*

Whatever intellectual attainments your son may have acquired, he is unfit to go forth into society if he has not had thrown around him the genial and purifying influences of parents, sisters, brothers, and the *man-saving* influence of the family government. The nation must look for virtue, wisdom, and strength, to the education that controls and shapes the *home policy* of the family circle. There can be no love of country where there is no love



of home. Patriotism, true and genuine, the only kind worthy of the name, derives its mighty strength from fountains that gush out around the hearthstone; and those who forget to cherish the household interests, will soon learn to look with indifference upon the interests of their common country.

We must cultivate the roots—not the tops. We must make the *family government*, the school, the farm, the church, the shop, the agricultural fairs, the laboratories of our future greatness. We must educate our sons to be farmers, artisans, architects, engineers, geologists, botanists, chemists—in a word, practical men. Their eyes must be turned from Washington to their States, counties, townships, districts, *homes*. This is true patriotism; and the only patriotism that will perpetually preserve the nation.—*Gov. Wright.*

#### NOTES FROM DOWN EAST.

**ROAD MAKING.**—I am not prepared to say which is the *best* system of regulating road making, but I will tell you how it has operated with us. For the last ten years preceding 1859, our roads in this place have been built on the "contract system" for a term of five years each. Proposals were received, the lowest bidder obtaining it, thus placing the superintendence entirely in one man's hands. The contractor took it to make money, and, as a natural consequence, the roads were neglected—just enough being done on them to "clear the law," and at the end of two terms or ten years the roads were almost impassable. Last spring the people rose almost *en masse* in favor of the "old surveyor system," and opposed to the "contract system." The city was divided into districts, with a surveyor chosen for each district, and the people empowered to "work out their road tax" at so much per hour. Each person being interested in making their own road, they are already fifty per cent. better, and no doubt but by autumn they will regain the old standard.

**BREEDING.**—In the June number of the *Farmer* a correspondent says that "heifers should not breed until four years old." This is a new doctrine to us of this section. We generally allow them to breed at two years, or three at the longest. It "wouldn't pay" for us to keep them till four years of age before breeding, and I presume the *pay* is the highest consideration with most others. But perhaps he had reference to breeding for excellency of stock without regard to cost.

**MANAGEMENT OF CALVES.**—Your correspondents, J. N. and E. MAYNARD, can not seem to agree on this subject. We generally take the calf from the cow as soon as it has suckled and thoroughly cleaned the udder; first learning them to drink new milk, then new and skimmed together, and lastly all skimmed, warmed, and a very little corn meal, uncooked, stirred in the milk; but a small quantity of meal at first, gradually increasing as they grow older. If too much is given at once, or if it is fed regularly, it will scour them.

**MAY-PLANTED CORN.**—The remarks of S. W., in the last (July) *Farmer*, in regard to early planted corn, perfectly coincides with my opinion.

"INDIA WHEAT"—Can you or your correspond-

ents give particulars in regard to raising, etc.? We have sown some this season but are unacquainted with it.

**HUNGARIAN GRASS.**—Is this nothing but a variety of millet, or is it a "humbug?" G. E. B.

*Belfast, Me., July 9th, 1869.*

#### DROPSICAL LAND.

The advocates of drainage expect farmers to be possessed of common sense enough to discriminate between land that will pay for draining and that which will not. If there are those that can not so discriminate, the draining of a few acres will show plainly whether it will or not, so that even if one has very little judgment in the case he need not essentially err. Every man may have observed that one part of a field will, in general, produce fine bright straw, (it may be wheat or other grain) with plump heavy ears, giving a satisfactory return for seed and labor expended, while immediately adjoining such part of the field another portion produces dark colored straw, (if not rusted,) and, lean ears with light unremunerating grain. Now did it ever occur to the farmer to ask himself the reason why one part of the field brought good grain and the other bad? For surely he must see there was a local cause. I will tell you how it is: the part giving good grain is sound, healthy land; the part giving bad grain is *dropsical* and diseased. Whatever manure may have been applied to it, did little or no good, and whatever vegetation it produced was unhealthy like itself. To prove what I say, let a ditch be dug in the sound land, and there will be no run of water, even in a wet time, unless there is a snow-bank melting near by, which runs into the ditch from the surface. Then let another ditch be dug through the *diseased* land, two and a half feet deep, and in ninety-nine cases out of a hundred there will be a free run of water, and that coming at or near the bottom of the ditch. And if the *dropsical* portion is thoroughly tapped, it will bring for a number of years much better crops than the land that was healthy from the beginning. In many cases such land will pay the cost of draining by the excess of the first crop, where it can be drained for \$15 to \$22 per acre.—*John Johnston, in Boston Cultivator.*

#### SCARIFYING PEA OR BARLEY STUBBLE FOR WHEAT.

**EDITORS GENESEE FARMER:**—In this country, wheat is frequently sown on land from which a crop of peas or barley has been taken. But where a crop of wheat is grown in this way, we find that the land, after the wheat is sown, becomes very foul. The plan I have adopted is this: As soon as the crop of barley or peas is removed, which is usually some three or four weeks before the time for putting in the wheat, I set a three-horse scarifier to work to tear up the soil, and bury all the seeds both of the weeds and seed grain as may have been left on the surface. These germinate and come up in a week or two, and are then turned under and destroyed, when I plow the land and get it ready for the wheat. In this way my crops of wheat are as clean, or nearly so, as those where the land has been summer-fallowed G. L. M.

*Ancaster, C. W.*

## MULES vs. HORSES FOR STEADY LABOR.

The prominent reasons for using mules in teaming and farm labor in preference to horses are briefly exhibited in the following views: They live to a much greater age; a mule has scarcely attained his matured strength at twelve years old, an age in which horses have commenced a rapid deterioration in value and usefulness; the average life of the mule is about thirty years, but often at forty they are known to perform efficiently the most laborious services. A team of mules will accomplish almost the labor of horses with a consumption of about one-third less provender. Within the last few years mules have been extensively introduced into the teaming operations of the manufacturing district in which I reside, and are universally considered there more efficient and economical for that use than horses. Mules are subject to but few of the diseases which prevail, and are so destructive, among horses. Their hard skin and short hair render them less liable to be galled by the harness or affected by cutaneous diseases. They are said never to be infested by vermin. The hoof of the mule is essentially a horny substance, and of slow growth, and hence his shoes are seldom cast or displaced in the position, but remain until worn out, firmly on the feet. The vision of the mule is much more quick and distinct than that of the horse, and therefore they are less liable to shy or become frightened. They are sure-footed to a proverb. The mule excels the horse and emulates the ox in his steady and uniform efforts in labor. It is objected to mules that besides their disagreeable braying, they are obstinate and slow, but these defects I believe may be overcome by gentleness and practice.

If these various traits of usefulness are possessed by the mule, the conclusion seems to be irresistible that his general introduction to the labor of the farm would be an important and most desirable improvement. The breeding of these animals is a subject worthy the serious and considerate reflection of the farmer. It is evident to my mind that mules may be bred with less care and expense than horses, and that they will command a price nearly equal to that of an ordinary horse, while the demand for them is prompt and continually increasing.—*W. C. Watson.*

**THICK OR THIN SOWING.**—I am about to "flag" great part of a field of Wheat drilled with  $4\frac{1}{2}$  pecks of seed per acre. It is too thick. Had I sown 2 bushels it would have gone down in the Grass. The field was Wheat in 1837 and Beans in 1858. So much for deep cultivation, drainage, and cleanliness. A thick crop is not always the result of a thick sowing. Much money is lost by sowing large quantities on highly farmed lands. If I were to catechise a farmer I should say: How many bushels of crop do you get for one bushel of seed? A Russian nobleman told me to-day he got 2 to  $2\frac{1}{2}$  for one. I replied that my crops which he was looking at would most probably yield 40 for one. In Oats and Wheat we need not be alarmed at Russian productions just yet. His land was sandy and boggy, in the same province as St. Petersburg. Hoeing and weeding is not a Russian practice, consequently they are sure at my rate of a good crop of weeds.—*J. J. Meun, Tiptree, Eng., June, 1859.*

## SOWING WHEAT.

**EDITORS GENESSEE FARMER:**—There is no question, in my mind, that drilling in seed wheat is on all soils better than broadcast sowing. So much greater a proportion of the seed is likely to germinate, that a much less quantity of grain is required to sow an acre. The use of a drill also saves all the labor of harrowing where the soil is well prepared before-hand. In fact, it is better not to harrow the land after drilling in the wheat, as the slight ridges left by the drill are gradually crumbled down by the rain and frost, and form a protective covering to the young and tender plants in autumn and winter.

But every farmer can not afford to buy so expensive an article as a drill-machine, and some soils are too stony and cloddy to allow of its use. Others again are of a light sandy description. On such soils, broadcast sowing answers very well, if followed by the roller to crush the clods or render a light soil more compact and prevent its washing by heavy rains. But on all well prepared loams, it is of no advantage to use the roller, the frosts of winter performing the operation more gradually and beneficially; and on such soils the roller is of most benefit when used in the spring; it then compresses the roots of the plant into the soil, after the disintegrating effects of the frosts are over. Wheat grown on a loamy soil, the surface of which is left very smooth and compact in the fall, is liable to be winter-killed by being heaved out in the winter and early spring by the frost, which on a more ridgy and uneven surface breaks down and crumbles the projecting soil. But on sandy soils, however compact they may be, who ever heard of wheat being winter-killed? The surface moisture that falls on such soils is too quickly absorbed for the frost to have time to produce any evil effect. A. E.

*Charlotteville, C. W.*

## QUARTERLY MEMORANDA FROM "DOWN EAST."

**MESSENGERS EDITORS:**—The weather during the month of June was not so good as we had reason to expect, according to the preceding month. Low temperature, frequent and heavy rains, and frosts, were common. The latest frost was on the eve of the 12th ult.—slight; one on the 6th ult. did considerable damage to corn, squashes, beans, etc. Heavy rain storm on the 18th ult., quite destructive to roads, bridges, and crops.

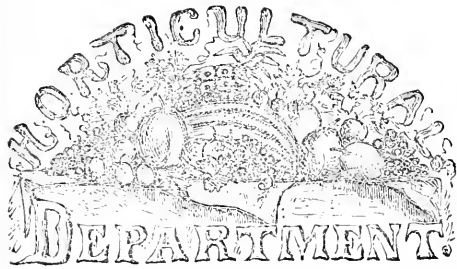
This month so far has been good "growing weather." The growing crops are generally looking well. Corn fair. Potatoes look well; early varieties in blossom. Oats, particularly greensward sown, are good. Grass is pretty good; we have just fairly commenced haying.

Apple trees were in full blossom on the 2d of June. According to present indications the apple crop will be small, if not a complete failure. Lilacs in full blossom on the 4th ult. Peonies by the middle of the month. Roses are just in blossom. Strawberries were ripe by the 22d ult., nearly a fortnight earlier than usual; selling now at 10 cts. per quart. They have been quite plenty, but have now most all ripened.

The warmest day yet this year was on the 29th ult., when the mercury indicated 90 deg. July 8th the mercury indicated 83 deg. Fah.

*Bellevue, Me., July 9th, 1859.*

G. E. BRACKETT.



WINTER, SPRING, SUMMER, OF 1859—EFFECTS OF  
THE WEATHER ON FRUIT TREES, &c.

Our readers in the vicinity of Western New York need not be reminded that the seasons of the present year have been peculiar, when compared with those of previous years, and the effect of the weather on fruit and fruit trees has been marked and decisive. The winter was warm and mild without parallel—very little snow, and the weather at no time very severe, except on the 9th, 10th, and 11th of January. On the 9th, at sundown, the mercury stood with us at 2 deg. above zero; at 9 o'clock in the morning on the 10th, at 3 deg. below; and at sundown, at 5 deg. below; but it was reported that at noon it stood at 10 deg. below. About 10 o'clock P. M. of the 10th a great change was perceptible, and at 9 A. M. of the 11th the thermometer indicated 18 deg. above, and the next day it stood over 32 deg. above.

The effect on the peach buds, of this sudden fall and rise in the temperature, was immediately perceptible—the minute black spot in the centre of each bud told the certain loss of the coveted crop of fruit. Just before this time the weather had been quite warm, and the buds were much swollen and extremely sensitive. In the winter of '56-7 the thermometer indicated a lower temperature even than this, and yet the peach crop in this section was a good one. From this we perceive that we have more to fear from mild weather in winter than from cold.

As we have before remarked, the peach crop here may be called a total failure; yet we have seen many trees, both of peaches and apricots, in different parts of this city, where they are protected by buildings on the north and west, which have on them tolerable crops of fruit.

It has occurred to us that some system of protecting peach trees may be adopted which will at the same time lessen the effect of the sun's rays in the winter season and also protect from extreme cold winds. The peach tree is different in its form from all other fruit trees. Instead of having a

straight trunk, from which at regular intervals branches start out on every side, like the cherry or pear, or even many sorts of apple trees, it usually, at the distance of three to five feet from the ground, makes three or four strong branches, which spread out from each other, leaving the centre of the tree open; and it is on the extremities of these branches, on the small shoots of the previous year's growth, that the fruit is borne. Thus the amount of wood that needs protection on the peach tree is small, compared with the bearing surface of most other fruit trees. Cherry, pear, and apple trees, for instance, bear their fruit on spurs, which are produced all over the tree, and especially on the older parts. To protect these trees, therefore, it would be necessary to cover the whole top of the tree; but the peach tree needs to have only the ends of the branches bearing the young wood to be covered. The small shoots and limbs of the peach are as limber as willows, and may be bent and compressed without injury; and it would not be impossible to wind about the extremities of each branch a straw band that would afford ample protection to the buds—three or four bands, or as many as there are main branches, would be sufficient for a tree. The bands could be put on any time in the month of December, as we seldom have very severe weather before January, and removed about the first of March. The expense of this operation would not be great, as it would be done at a season of the year when the orchardist or farmer has usually plenty of time. The bands could be made at the barn or stack, before commencing to put them on, and then provided with a good self-supporting step-ladder a handy man would easily wind twenty or twenty-five trees in a day. A strong objection against this practice is that a heavy fall of snow, accompanied with wind, would be apt to break and split the trees. The whole top of the tree might, however, be encircled with a band of straw, or some other material which would hold it firm.

We have no doubt these remarks are premature and perhaps impracticable, but they may serve to direct public attention to this matter, and result in the discovery of some cheap and efficient protection to the peach tree.

Contrary to the expectations of all the weather-wise, whose faces were only longer and more clouded by being shone upon by a winter's sun, the spring was unusually early and warm. Vegetation advanced with great rapidity, and during the blossoming of the fruit trees we were quite exempt from those severe east winds which frequently prove so injurious to the fruit while in this nascent state.

The frost on the 4th of June and again on the 10th of the same month, will long be remembered. Instances of its terrible ravages are related to us from every quarter. The most protected situations suffered most, while open, exposed hill-tops, where the wind had free scope, escaped with little or no effects from it. Succulent plants, and those in the rapidly growing state and filled with sap, were cut to the ground, while those naturally more tender, but in a dormant state, were not touched. The extreme western counties of this State and of Pennsylvania, and the eastern counties of Ohio, probably suffered as severely as any other section. Apples, pears, cherries, &c., were frozen stiff on the trees, and totally destroyed. The grain and grass crops were in some places cut to the ground. The foliage of grape vines, in many places, was cut off, but the young wood survived; and although such vines are barren the present season, they are making a good stock of wood for next year.

Raspberries were greatly injured by the severe weather of the winter at the same time the peach buds were killed. In this vicinity a large proportion of the canes were destroyed, and the crop consequently is a light one. We learn from this the value of bending down the canes in the fall, and protecting slightly with leaves or straw, or even throwing a spadeful of earth on the end of the canes when bent to the ground, which, without anything further, seems to answer every purpose. The *Luxton* blackberry thus managed last winter is now bearing an abundant crop—the bushes are weighed down with the immense number of berries.

Strawberries have been a successful and profitable crop, although the June frost destroyed many of the late blossoms.

Newly transplanted trees broke very strong soon after setting, but a deficiency of rain during the spring and the severe dry weather during the first half of July have caused quite a failure among them. We hear reports of this character, especially from young plantations of peach trees. Too much care can not be taken in planting young trees to puddle the roots well in the hole while setting, and to mulch well after.

We observe trees on underdrained land to do much better this season than those not so situated. A block of pear trees, in a nursery, that daily comes under our notice, on undrained land, turned yellow by the middle of June without having made more than three or four inches of growth, while a short distance from them, on precisely similar soil, but well underdrained, the trees in another block have

made a growth of three or four feet, and are yet growing rapidly. Cherry trees have uniformly borne a large and fine crop of fruit. Apple and pear trees, generally, are carrying good loads, and promise a plentiful harvest; and, notwithstanding the vicissitudes of the past eight months, the fruit crop, on the whole, about Rochester, is such as to amply satisfy the desires of horticulturists.

#### FRUIT GROWERS' SOCIETY OF WESTERN N. Y.

THE June meeting of the Fruit Growers' Society of Western New York was held at the Supreme Court room in this city, upon the 23d ultimo. The exhibition of fruit was, in spite of the severe frost of the 4th of June, very fine, and, combined with the fruits and flowers of the Genesee Valley Horticultural Society, made up a spectacle rarely enjoyed in June in any city.

After the usual formalities of organization, subject No. 1 was read by the secretary: "*Are there any benefits to be derived from the practice of ringing, ligatures, girdling, &c., of the grape vine; and, if so, what are they?*"

Increase in size was spoken of first as a *benefit*, and some very fine large bunches were mentioned which were shown at last September's session.

Cases were mentioned by Messrs. TOWNSEND and HOAG, of Niagara county, AINSWORTH, of Ontario county, and SMITH, of Onondaga county, where vines, or branches of vines, had been accidentally girdled or ligatured, and where in every case the size was very much increased, sometimes doubled: while generally the flavor was improved and the maturity hastened.

Judge LANGWORTHY, of Monroe county, remarked that ligating branches of apples, peach trees, &c., accelerated the period of ripening materially, and, reasoning from analogy, it ought to do the same with grapes.

MR. S. H. AINSWORTH, of Ontario county, stated that he knew from experience that bunches above the girdled parts of the vine ripened fully two weeks earlier than any others on the vines. Judge LANGWORTHY's inferences were thus shown to be correct.

The proper time to ring or girdle was thought to be soon after the fruit had set, and that only a narrow ring of bark needed to be removed. The object was more to obstruct than to prevent the return flow of the sap. One way, is to tightly twist a small annealed wire around the branch, and after a few weeks remove it; much of the effect will thus be produced, while but little injury can ensue to the plant.

P. BARRY stated that this practice was by no means a new one; that we read of it among Ro-

man gardeners; that English writers have long spoken of it in terms of at least partial commendation; that the French have long experimented upon it, and that it seems to be proved that it does add materially to the size, and does hasten the maturity of the fruit. Mr. BARRY thought that, as a whole, it did not improve the quality of the grape, while the obstruction of the return of the sap from the leaves to the roots, was an injury to the roots. The grape vine will bear this girdling with more impunity than any other plant, because it makes new roots so easily. The whole of this is a very interesting matter, and well worthy of the attention and the experiments of members.

Mr. TOWNSEND again spoke, hoping that members would experiment and give us their results at the September meeting. Could not quite agree with Mr. BARRY as to injury to the roots. Let us take the case of an *Isabella* vine, trained and pruned according to the renewal system, and there are in fact two vines taking sap from the root and giving it an outlet through the leaves. The only loss to the root is from the obstruction (not stoppage) of the flow of part of the sap of one of these vines, and the consequent extra development of the fruit. As to the branches, when vines are pruned according to the renewal system, the part ligated is only that which will be removed next year any way, while the vine that is to bear fruit next year is not interfered with at all. Upon this system the results can not be otherwise than very nice.

Judge LANGWORTHY here put in this proviso: that if the ligature or girdling be applied to the main stem of the vine, Mr. BARRY's idea of injury to the root is undoubtedly correct; but if to new growth or only a part of the vine, as spoken of by Mr. TOWNSEND, no bad effect would probably ensue to the root. He also said the hastening of the maturity of the fruit would show most conspicuously upon the *Catawba* grape, and if by girdling we can gain a fortnight in time, do let us try it. Few of us ever saw a ripe *Catawba* grape in Monroe county, and if the way is now opened for us to have ripe *Catawba* grapes, do let us try it.

Question No. 2 was: "*The late frost: what has been its effects upon the grape, both with reference to the present and the next season's crop?*"

Wherever the growing wood was much affected, the results upon the next season's crop are of course disastrous; because the new wood which the vines are compelled to make will hardly have time to ripen up sufficiently to withstand the severity of the winter, and to be nice bearing wood for the next season's crop.

As to the relative hardness of the different varieties of vines under this freeze, Mr. C. P. BISELL had found his *Isabellas* were hurt worse than any others. Mr. S. H. AINSWORTH and his neighbors in Bloomfield had noticed that their *Rebecca* vines were "all uninjured," while other sorts around and among the *Rebeccas* were more or less injured. Mr. O. C. ROSS, of Penfield, said that among some half-dozen varieties the *Rebecca* was the only one

not injured. Other gentlemen had noticed the perfect hardness of the *Rebecca*, and endeavored to account for it by its ripening up its wood as fast as it grows, and not leaving long succulent shoots to be chilled by every depression of the atmosphere, or destroyed the first time the mercury sinks below 32 deg.

Question 3: "*Which are the best varieties of Strawberries for general profitable cultivation, according to present experience; and which the most profitable and at the same time most economical mode of cultivation?*"

Mr. H. N. LANGWORTHY, of Rochester, spoke of the qualities which were needed to constitute the best varieties. In this climate we want hardy plants, to bear our winters without injury, and no sort not perfectly hardy can be one of the best. We want berries which are of good size and of fine flavor; and if for market, of an attractive color, with the flesh of the berry hard and so firm as to bear transportation to the market without bruising. We certainly want strong-growing plants, with a stout stem and strong foot-stalks to keep up the berries from the dirt.

Several gentlemen spoke of the valuable qualities possessed by this or that favorite variety, which had succeeded admirably under their cultivation, but all were united as to the value of the *Large Early Scarlet* and *Wilson's Albany*; while the *Hooker* and *Triomphe de Gaud* were scarcely behind them in estimation—the *Hooker* adding to its other good qualities that of being especially valuable for preserving purposes.

The various modes of garden and field-culture were stated and commented upon, and the following mode of mulching recommended: Spread clean black muck over the whole surface of the bed, to the depth of half an inch, in the fall. The alternate freezing and thawing during the winter will disintegrate it as fine as white sand; and being spread over the whole surface, it serves as a mulch, protecting the bed from the cold. During the growing season it is an excellent fertilizer for the plants. There being no seeds in the muck to germinate, it assists in keeping the bed clean from weeds; and it is so pure, that if the ripe berries do touch it they are not soiled as they are by contact with the garden mold.

During the discussion of question 3, Dr. SPENCE, of Yates county, exhibited some stumps of standard pear trees which had been killed by what was to him quite a mysterious disease, and asked the opinion of members upon the subject.

They were standard pear trees, five years old. In the fall of 1853 the leaves commenced to assume a red hue very prematurely. During the summer of 1858, they had made a good strong growth—

(and here he showed some very long branches of last year's growth.) This spring, 1859, the buds had swelled as usual and seemed ready to develop. The fruit buds even began to unfold, and then *all stopped*. The bark remains green all down the body of the tree until near to the ground, and root, and it then is all dead and has the appearance of having been dead for a year. The point where the bark changes from green and bright to brown, is sometimes above and sometimes below the point of junction between the pear stock and the graft. The wood is dead beneath the bark and the bark is dead. Had examined thoroughly, with a microscope, and could find no insect there and no mark of any insect having been there. Had brought to the Society some of the stumps of the trees, and wished the gentlemen to look at them. The Doctor verified all his statements as he proceeded by cutting the bark, and showing it green above and dead at the roots. In answer to questions—the roots were always mostly dead. His loss had been within the last four or five years fully 250 out of 1,200 trees.

T. C. MAXWELL thought it was the fire blight. Had found in his experience that the blight uses all bark just in this same way. The disease seems to commence in the roots; the roots all seem to die. The further supply and circulation of fresh sap is of course stopped. There remains enough of sap in the bark and body of the tree to make the fruit buds and leaf buds commence to swell and to keep the bark green.

ALVAN COVEY had lost cherry trees in the same way. Two *Napoleon Bigarreau* trees died last year, and upon digging them up found that the roots were dead, with the same appearance as those now before the meeting. Disease is not confined to standard pear trees, by any means.

T. G. YEMANS, of Waldworth, had planted two hundred standard pear trees, and they were all gone now; knew that in his case it had been caused by an excess of water. Having the excess of water once in a while is what does it.

S. H. AINSWORTH—Looking at these stumps of Dr. SPENCE would call attention to the roots. They seem all to be lateral roots, to run near the surface of the ground—trees seem not to have had any tap roots. Thinks there must have been wet subsoil or some water which, flowing to the trees, prevented the growth of the tap roots. Much depends upon the condition of the earth in the spring; alternate freezing and thawing is almost sure death to the trees. Had lost a great many trees in his day, but never had any die where the subsoil was dry.

Resuming question No. 3, a ballot was taken as to the best six varieties of strawberries for market purposes, upon which *Early Scarlet* and *Wilson's Albany* were upon every ballot, and *Hooker*, *Triomphe de Gand*, *Hovey's Seedling*, and *Burr's New Pine* received a plurality of the votes. Also, as to which were the best six varieties for amateur cultivation. And here the members hardly varied a vote from *Early Scarlet*, *Hooker*, *Burr's New Pine*, *Hovey's Seedling*, *Wilson's Albany*, and *Triomphe de Gand*.

Several gentlemen were at this time questioned

upon points where the members knew them to have enjoyed facilities for experience upon particular points in cultivation, but the facts elicited were only confirmatory of what are at present understood to be the best methods of culture—in hills for the garden, and in rows or beds for the field.

P. BARRY, recalled with pleasure the remarks made by H. N. LANGWORTHY when this subject was first introduced. Let us be sure that we know what we want; what qualities we desire in the plants, and what in the berries; then let us cultivate our vines in the proper manner—let everything be done according to some system, and we shall have results which will astonish those who just go along hap-hazard, anyhow, and who are consequently always having bad luck with their berries.

The Society adjourned to meet in Rochester at the call of the Council—probably in September. Messrs. E. W. HERENDEEN, of Macedon, Wayne county; T. C. MAXWELL, of Geneva, Ontario county; and C. L. HOAG, of Lockport, Niagara county; have been appointed a committee to select subjects for discussion at the September meeting. This selection will be made some weeks beforehand and full notice of the choice will be given to members by the secretary.

GARDEN TRASH.—A nurseryman of this city tells us the following good story, and guarantees its truth. He had an agent selling trees in Tennessee. The farmers are wealthy, but not remarkable either for their intelligence or horticultural taste. The agent had a book of colored engravings of fruits, flowers, &c. He was trying to sell trees to a farmer, and exhibited these engravings. On turning to a fine plate of strawberries, the farmer exclaimed, "These look nice; I will have some of these. What kind of a tree do they grow on?" The agent explained that they did not grow on trees—they were raised on small plats in the garden. "Oh, then," said Tennessee, "I wont have them; *I want none of your garden trash.*"

PERMANENT LABELS.—Take of verdigris and sal ammoniac each two drachms; lampblack one drachm; water four ounces. Mix well in a mortar, adding the water gradually. Keep in a glass vial securely stopp'd. Write with the ink in a quill pen, upon clean, bright zinc plates of any desired form. When dry, it may be exposed to the weather, or buried in the ground for years, without obliterating the writing. Shake the ink well before using.—*Cor. Co. Gent.*

A VARIETY OF CYPRESS.—The *Revue Horticole* gives an account of a variety of cypress grown in France, the peculiarity of which consists of there being no branches, the leaves growing on twigs that spring directly from the stem. The height reaches 40 feet, while its widest diameter, comprising stem and branches, is only 2 feet.



EUROPEAN FLOWERING ASH.

#### THE EUROPEAN FLOWERING ASH.

In the *Genesee Farmer* for 1852, we called the attention of our readers to this beautiful tree. Since then it has been considerably diffused throughout the country; but it is still too little known. There are some fine specimens growing near this city, and we have now the pleasure of presenting an excellent engraving of the tree and flower. It resembles the common ash in its general features. The flowers appear about the first of June, in clusters at the ends of the branches. These clusters are shorter than the leaves which surround them; and when the tree is in full bloom, it looks as though a bouquet of white, delicate flowers, tastefully encircled by foliage, was placed at the end of every branch.

This tree (*Ornus Europæa*) is a native of Southern Europe. In Calabria and Sicily the sap, which exudes from it in considerable abundance, is collected, and when concrete is mild and mucilaginous, and forms an article of commerce under the name of manna. In favorable situations the manna runs spontaneously, but only during the greatest heats of summer. It begins to ooze out about mid-day, in the form of a clear liquid, which soon thickens, and

continues to appear till the cool of the evening when it begins to thicken into granules, which are scraped off the following morning. When the night has been damp or rainy, the manna does not harden, but runs to the ground and is lost. The manna obtained spontaneously is as pure and white as the finest sugar. About the end of July, when the liquid ceases to flow of itself, incisions are made through the bark and soft wood, and into these incisions slender pieces of straw or twigs are inserted, on which the manna runs, and, coating them over, hardens on them. This is the common manna of the drug stores. It has a peculiar odor and a sweetish taste, accompanied with a slight degree of bitterness. It is considered aperient, and was formerly much used in medicine, but is now chiefly used to disguise other drugs in administering them to children. This manna must not be confounded with the manna of scripture, which is obtained from the *Alhagi maurorum*, and is now known in the east as the Persian or Syrian manna; or with the Arabian manna, which is obtained from the tamarisk. A similar substance is also obtained in the south of France from the larch. The rhododendron, the walnut, and the beech, also



yield an analogous substance, as probably do various other trees.

There is an American flowering ash of a more rapid and robust growth than the European variety, but they are believed to be of the same species.



LEAVES AND FLOWERS OF THE EUROPEAN FLOWERING ASH.

The flowering ash is propagated by budding or grafting (the latter is preferable) on the common ash (*Fraxinus excelsior*); and as the stock in this case is a much more vigorous-growing plant than the scion, when the graft has been made a foot or more above the ground the stock enlarges on every side so much more than the scion as to produce the appearance of the base of a column.

**LIME IN TRANSPLANTING TREES.**—An English publication says that a large plantation of trees has been formed in that country, within a few years past, without the loss of a single tree, by putting a small quantity of lime in the hole when planting the tree. Four bushels of lime are said to be sufficient for an acre. The lime is thoroughly mixed with the soil, in order that it may be reached by the roots, with equal facility in every direction, as its principal effect is to push forward the tree during the first precarious stages of its growth.

The best stock a man can invest in, is the stock of a farm; the best shares are plow-shares; and the best banks are the fertile banks of the rural stream: the more these are broken the better dividends they pay.—*H. W. Beecher.*

#### A USEFUL INSECT ON PLUM AND APPLE TREES

Mr. CORNELL, of Ithaca, N. Y., discovered some insect eggs on his plum trees this spring, and sent them to B. P. JONSSON, Secretary of the New York State Agricultural Society. In the last number of the *Journal*, he says:

“We sent these eggs to Dr. Fitch, and they were hatched in about six weeks—giving on the Prickly Tree-bug (*Sinea multispinosa* of DE GEER, = *Diadema* of FABRICIUS, = *Roptoria* of SAY). Mr. Stevens, of this city, left at the Rooms, eggs of this same insect, which he found on the apple tree, a year ago. Dr. Fitch then ascertained that these insects do not seek vegetable juices, as they all die, though supplied therewith. The query arises what insect common to the apple and plum trees, comes out early enough in the spring for these bugs to feed upon it. The caterpillar, which makes its nest in the forks of the limbs, Dr. F. surmised must be the food on which they live. Some young caterpillars were put into a bottle with them, and they immediately pierced them with their bills—doing this so adroitly, and not at all daunted or disconcerted by the writhings of the worms, that it was manifest they understood that kind of work perfectly, although just out of their shells—continuing to suck them several hours, till only their shrivelled skin remained. The Dr. turned them out on his apple trees to forage for themselves. Mr. Stevens and Mr. Cornell, and all our readers will see the importance of welcoming these bugs as their very best friends, who will aid them in ridding their trees of the caterpillars, so destructive to the apple and plum trees.”

#### HOW TO PREVENT FRUIT STEALING.

THE *Am. Agriculturist* says a friend found his grapes disappearing from the vines as fast as they ripened. Suspecting that the servants stole them, he went through the kitchen bitterly complaining of the thieves. The cook said she had seen the birds picking the grapes. “Very well,” said he, “I’ll fix them, or whoever else takes the fruit. I have some bitartrate of antimony (tartar emetic) in the house, and if I sprinkle a little of that on some of the fruit, it’ll be the last that any one will steal. Get me some flour to mix it with.” He took the flour into the room for a few minutes, as if for preparing it, and then scattered some of the simple flour on sundry places in the vines, and on some other fruits in the garden. There was but little further disappearance of fruit that summer.

Another correspondent of the same paper is responsible for the following: “A tall, green-looking Yankee accosted me at a County Fair, having a fine-looking apple in his hand, and begged me to tell its name if I could. I tasted it—but, shade of

omona! of all the sour apples I ever ate, this capped the climax. It was worse than verjuice, or our plums, or unripe persimmons. After I had regained my composure, I ventured to ask what might be *his* name for this invaluable fruit. Whereupon, with a sort of satirical smile stealing over his otherwise sober features, he replied: 'Wal neow, stranger, that's the most useful apple on my ull farm. I call it the Yankee apple, 'cause it can't be beat: it looks so good, and yet is so 'tarnal sour, that I use it only to graff on all the lower limbs of my apple trees standing near the road. The upper limbs I put to Greenings, Swaars, and such like good apples. Neow, the boys seein sich good lookin apples handy, jump the fence, seize the fust fair one they can reach, take a bite, — but, neow, after one bite, they never wait to take nother, but run right off as fast as legs can carry them to Deacon Simmons' orchard, to get one of these good Baldwins to take the sour out of their mouths. My orchard sartainly has an awful reputation with the risin generation, and so I save my fruit. Neow, if this ere is not a very useful apple, I'd like to know what is?' It would not perhaps be a bad idea to have the Yankee apple placed on the next fruit list of the Pomological Society as worthy of general cultivation."

#### PLANTING AND CULTIVATION OF APPLES.

THE distance at which the trees should be planted in an orchard, depends upon the mode in which they are to be treated. When it is desired finally to cover and devote the whole ground to the trees, thirty feet apart is the proper interval, but where the farmer wishes to keep the land between the trees in grain and grass, fifty feet is not too great a distance in strong soils. Forty feet apart, however, is the usual distance at which the trees are planted in orchards.

Before transplanting, the ground should be well prepared for the trees, and vigorous healthy young trees should be selected from the nurseries. As there is a great difference in the natural growth, shape, and size of the various sorts of apple trees, those of the same kinds should be planted in the rows together, or near each other; this will not only facilitate culture and gathering the fruit, but will add to the neatness and orderly appearance of the orchard.

It is an indispensable requisite, in all young orchards, to keep the ground mellow and loose by cultivation; at least for the first few years, until the trees are well established. Indeed, of two adjoining orchards, one planted and kept in grass, and the other plowed for the first five years, there will be an incredible difference in favor of the latter. Not only will these trees show rich dark luxuriant foliage, and clean smooth stems, while those neglected will have a starved and sickly look, but the size of the trees in the cultivated orchard will be treble that of the others at the end of this

time, and a tree in one will be ready to bear an abundant crop, before the other has commenced yielding a peck of good fruit. Fallow crops are the best for orchards—potatoes, beets, carrots, bush beans, and the like; but whatever crops may be grown it should constantly be borne in mind that the roots of the tree require the sole occupancy of the ground so far as they extend, and therefore that an area of more than the diameter of the head of the tree should be kept clean of crops, weeds, and grass.

GATHERING AND KEEPING THE FRUIT.—In order to secure soundness and preservation, it is indispensably necessary that the fruit should be gathered by hand. For winter fruit the gathering is delayed as long as possible, avoiding severe frosts, and the most successful practice with our extensive orchardists is to place the good fruit directly, in a careful manner, in new, tight flour barrels as soon as gathered from the tree. These barrels should be gently shaken while filling, and the head closely pressed in; they are then placed in a cool shady exposure under a shed open to the air, or on the north side of a building, protected by covering of boards over the top, where they remain for a fortnight, or until the cold becomes too severe, when they are carefully transferred to a cool, dry cellar, in which air can be admitted occasionally in brisk weather.

A cellar, for this purpose, should be dug in dry, gravelly, or sandy soil, with, if possible, a slope to the north; or, at any rate, with openings on the north side for the admission of air very rarely in weather not excessively cold. Here the barrels should be placed on tiers on *their sides*, and the cellar should be kept as dark as possible. In such a cellar, one of the largest apple growers in Dutchess county is able to keep the Greening apple, which, in the fruit room, usually decays in January, until the 1st of April, in the freshest and finest condition. Some persons place a layer of clean rye straw between every layer of apples, when packing them in barrels.—*Downing's Fruits of America.*

#### PEARS.

THE best soil for this fruit tree, is a *strong loam* of moderate depth, on a dry subsoil. The pear will, indeed, adapt itself to as great a variety of soils as any fruit tree, but, in unfavorable soils, it is more liable to suffer from disease than any other. Soils that are damp during any considerable portion of the year, are entirely unfit for the pear tree; and soils that are over-rich and deep, like some of the western alluvials, force the tree into such over luxuriant growth, that its wood does not ripen well, and is liable to be killed by winter blight. The remedy, in this case, consists in planting the trees on slightly raised hillocks—say eight inches above the level of the surface, and using lime as a manure. Soils that are too light, on the other hand, may be improved by trenching, if the subsoil is heavier, or by top dressing with heavy muck and river mud, if it is not.

In a climate rather cold for the pear, or on a cold soil, it is advantageous to plant on a southern slope, but in the middle States, in warm soils, we do not consider a decidedly southern exposure so good as other rather cooler ones.

The pear succeeds so well as an open standard, and requires so little care for pruning—less, indeed, in the latter respect, than any other fruit tree, that training is seldom thought of, except in the gardens of the curious or skilful.

In orchard culture, the pear is usually planted about thirty feet distant each way; in fruit gardens, where the heads are somewhat kept in by pruning, twenty feet is considered sufficient by many.

Pears trees, in a bearing state, where the growth is no longer luxuriant, should have, *every autumn*, a moderate top dressing of manure, to keep them in good condition. This, as it promotes steady and regular growth, is far preferable to occasional heavy manuring, which has a tendency to produce the worst form of blight to which this tree is subject.

The pear not being very abundantly supplied with fibrous roots, should never be transplanted, of large size, from the nursery. Small, thrifty plants, five or six feet high, are much to be preferred.

**GATHERING AND KEEPING THE FRUIT.**—The pear is a peculiar fruit in one respect, which should always be kept in mind; viz. *that most varieties are much finer in flavor if picked from the tree, and ripened in the house*, than if allowed to become fully matured on the tree. There are a few exceptions to this rule, but they are very few. And, on the other hand, we know a great many varieties which are only second or third rate, when ripened on the tree, but possess the highest and richest flavor if gathered at the proper time, and allowed to mature in the house. This proper season is easily known, first, by the ripening of a few full grown, but worm-eaten specimens, which fall soonest from the tree; and, secondly, by the change of color, and the readiness of the stalk to part from its branch, on gently raising the fruit. The fruit should then be gathered—or so much of the crop as appears sufficiently matured—and spread out on shelves in the fruit room or upon the floor of the garret. Here it will gradually assume its full color, and become deliciously melting and luscious. Many sorts which, ripened in the sun and open air, are rather dry, when ripened within doors are most abundantly melting and juicy. They will also last for a considerably longer period, if ripened in this way—maturing gradually as wanted for use—and being thus beyond the risk of loss or injury by violent storms or high winds.

Winter dessert pears should be allowed to hang on the tree as long as possible, until the nights become frosty. They should then be wrapped separately in paper, packed in *kegs, barrels, or small boxes*, and placed in a cool, dry room, free from frost. Some varieties, as the D'Arenberg, will ripen finely with no other care than placing them in barrels in the cellar, like apples. But most kinds of the finer winter dessert pears, should be brought into a warm apartment for a couple of weeks before their usual season of maturity. They should be kept covered to prevent shriveling. Many sorts that are comparatively tough if ripened in a cold apartment, become very melting, buttery, and juicy, when allowed to mature in a room kept at the temperature of 60 or 70 degrees.—*A. J. Downing's Fruits of America.*

## PRUNING CONIFERS.

McINTOSH, in his *Book of the Garden*, says: "As regards the season of pruning coniferous and ornamental hardy trees, be they evergreen or deciduous, winter has in general been the time chosen. This is, however, a mistake—the latter end of spring and throughout the whole summer being the most proper time, because at that season the wounds made speedily heal up, on account of the trees being in the full vigor of growth.

"As the great object is altitude in the pine tribe, the removal of the lower tiers of branches has a positive tendency to effect this, although it would be hazardous to amputate branches of a large size. Coniferous pruning should be performed only during summer; and when the trees assume flat spreading heads (we do not mean those whose natural habit is to be so, but such as the larch, silver fir, &c.), the extreme points of two or three tiers of branches, even above that which is to be removed, may with great advantage be foreshortened. This should, however, be done so as not to disfigure the tree, or show the points of the amputated shoots. That most elegant and likely to be most valuable of all our recently introduced conifers, the Deodar cedar (*Cedrus Deodura*), is a case in point. It naturally, while young, sends out branches in a horizontal and afterwards a drooping manner, and these extend themselves to a great distance, often reclining on the ground by reason of their own weight. This disposition is the cause why the leading shoot of this tree seems so weak, and so seldom takes a perpendicular direction. Prune the lower branches as stated above, and this apparent debility in the leader will disappear, and it will assume its proper habit, and shoot with great vigor in a perpendicular direction. All the young plants of this species, while yet in the nursery, should have their lower branches taken off, and those above, to the extent of two tiers, foreshortened also. The Canadian pine (*Abies Canadensis*) and Cedar of Lebanon (*Cedrus Libani*) are familiar instances of sad mismanagement in this respect. The former is oftener found assuming the character of a flat or bushy shrub than that of a tall tree; and the latter very often a scrubby, meagre-looking tree, branching out within a few feet of the ground, and ramifying into innumerable branches, either vertical or horizontal. Now, we consider (apart from the erroneous practice of keeping such plants in pots till they are finally planted out) that want of judicious early pruning is the cause why the former seldom attains the character of a tree, and the latter becomes a caricature of its natural habit. No doubt, in the case of both there are seminal varieties occasionally occurring, which may in some few instances account for such forms; but, in general, it is a thorough neglect of pruning in youth which is the principal cause.

"Coniferous plants will bear pruning with as much impunity, and with as great advantage, as other trees or plants, if the operation is performed at the proper season and at a proper age. None, however, suffer more from an opposite course."

SPINAGE seed should be got ready to be sown in September, if you wish a good supply of this choicest of all spring greens.

## Ladies' Department.

### PRESERVING FRUITS WITHOUT SUGAR.

**EDS. FARMER:**—The present mode of preserving fruit with very little or no sugar, has become so prevalent as to be no longer new to your numerous readers; but for the benefit of young house-keepers who wish to know precisely how it is done, I will give you my method of putting up peaches, in which I have been particularly successful.

I use **SERRALL'S** self-sealing glass cans. I put several of them at a time in pans of cold water, and place them on the stove to heat gradually. Then fill the preserving kettle about one-third full of water, and perhaps a half a pound of sugar. Then pare and stone the peaches, and put them—a few at a time—into the syrup; and when they are up to the boiling point, put them into the cans with a spoon, as rapidly as possible. When full, apply the cover—the wax having been softened by the heat of the peaches—the air will be completely excluded. Then remove from the water to a table as soon as each one is filled, and put a weight as heavy as a flat-iron on each cover, until the wax becomes cold.

If many are to be put up, it should employ the hands of two or three persons, that the peaches may not lose their flavor or color by standing. They should be fully ripe. The yellow peaches are decidedly the best.

This is a much more expeditious way than cooking in the bottles or cans, and the air is just as effectually excluded. The peaches can be put up whole, if desired, in the same way. This preserves the flavor of the pit, and makes them particularly good for pies.

When putting up cherries or other small fruits, the bottles are filled with the fruit; then placed in a large flat-bottomed kettle or boiler. Fill the kettle with cold water as high as the necks of the bottles, and let the water boil twenty minutes. Put in the corks before they are removed from the kettle, and seal immediately. When fruit is to be used for puddings or pies, put it up without sugar; but when designed for eating upon the table, the easiest way is to cook them in a preserving kettle, with a small quantity of sugar, which seems to preserve the flavor of the fruit.

This mode of preserving fruit is not only one of the luxuries of the age, but is a great saving of labor and perplexity, when compared with the old method of preserving. AN OLD HOUSEKEEPER.

[We can bear testimony to the excellence of peaches preserved in this way.]—Eds.

**FRIED POTATOES.**—How few cooks know how to fry potatoes. There is nothing so easy to get and yet so palatable for breakfast, with a thick, tender beef-steak, or a mutton chop fizzing from the grid-iron. To fry raw potatoes properly, they should be pared, cut lengthwise into slices an eighth of an inch in thickness, dropped into a pan over the fire, containing hot beef drippings, turned frequently, nicely browned all over but never burned. The addition of a little salt and pepper, while in the pan, and a little flour dredged over them, is an improvement.

### ORIGINAL DOMESTIC RECEIPTS.

[Written for the Genesee Farmer by various Correspondents.]

**LEMON PIE.**—Mix flour and molasses so that it will just run freely. For each pie, add one drop lemon oil, and you have an excellent pie. Be sure and use the *oil*. Cinnamon is also good.

**SCARLET ON WOOLEN.**—For two pounds of goods, take two ounces muriate of tin, two ounces cochineal, two ounces cream of tartar. Boil the dye fifteen minutes; then dip in the goods, and air until the color suits. Color in brass or copper.

**FOR TEN POUNDS BLACK—WOOL OR COTTON.**—Prepare with one and a half ounces bichromate potash, one ounce cream tartar. Boil two hours. Drain the goods. Boil two and a half pounds log-wood chips one hour; put in the goods; boil one hour; rinse and dry. Will not smut or fade.

**TO DRY CORN FOR SUCCOFASHI.**—Select sweet corn when in its best state for eating green. Scald sufficiently to "set the milk." If a small quantity at a time is put in boiling water, it should not remain over five minutes. Cut from the cob; spread on cloths, or a frame covered with net, and expose to the sun. When well cured, put in bags and hang in a dry place.

**ELDERBERRY PIE.**—Put the under crust on the platter, and pour on elderberries till half an inch deep; then sprinkle two tablespoonfuls of flour and two of sugar over them, and pour on them a teaspoonful of sour cream. Put on the upper crust, and bake thoroughly. Dried elderberries will make as good pies as though fresh, if they are soaked a few minutes in hot water before using.

**MADDER RED ON WOOLEN.**—For three pounds of goods, take one and one-fourth pounds of madder, three ounces of muriate of tin, (known to some as tin liquor). Heat moderately, till the madder has colored the water pretty thoroughly. Saturate the goods in warm water, and put them in the dye. Then is the time to be active, to prevent spots. With a clean stick or staff, stir continually for half an hour; take out the goods, and rinse in luke-warm water. Color in brass or copper.

**PICKLING WALNUTS.**—A lady of great experience in such matters, gives the following receipt for *pickling walnuts*: "Gather them dry, prick them through with a large pin two or three times, put them into salt and water, shift them every three days for a fortnight, put them into a sieve, and let them stand a day in the air, and then put them into an earthen jar. Boil as much vinegar as will cover them well, pour it boiling hot over them, let them stand three days, then put them into a sieve, and let them stand in the air another day; then take to every quart of fresh vinegar that may be wanted, half an ounce of black mustard seed, half an ounce of horseradish cut into slices, a quarter of an ounce of long pepper, three cloves of garlic, a dozen cloves, four or five pieces of raw ginger, and a few eschalots; boil these ten minutes, and pour it boiling hot over your walnuts; let it stand a fortnight, then put them into bottles corked close, and cover the corks with resin. They will keep for years."



### New Advertisements this Month.

Draining and Subsoil Plow—Alden & Co., Auburn, N. Y.  
 Pratt's Patent Self-Ventilating Covered Milk-Pans—Arthur, Burnham, & Groby, Philadelphia, Pa.  
 Melode ns—Mason & Hamlin, Boston, Mass.  
 A Practical Gardener wants a Situation—A. B., Rochester, N. Y.  
 Lawton Blackberry Plants—Wm. Lawton, New Rochelle N. Y.  
 Pure Chester County Pigs—D. Cutts Nye, Lexington, Mass.  
 Poughkeepsie Small Fruit Nursery—Edwin Marshall, Poughkeepsie, N. Y.  
 A Safe and Profitable Business—E. G. Storke, Auburn, N. Y.  
 South Downs—J. C. Taylor, Holmdel, N. J.  
 Excelsior Churn—Alden & Co., Auburn, N. Y.  
 Fancy Flour Sacks, &c.—M. Vanderhoof, N. Y.  
 To Dairymen—A. W. Eaton, Little Falls, N. Y.

### NOTES ON THE WEATHER FROM JUNE 15TH TO JULY 16TH.

—The last half of June, as well as the first, had an average heat about three degrees below the mean for the last twenty-two years. The progress of vegetation was retarded, or less rapid. The quantity of rain was less than usual also. On the 21st was a heavy storm of lightning, rain, hail and wind in the vicinity of Albany, and on the day before in Kansas. Many such occurred over the country. The atmosphere was kept cool. Great fall of temperature followed the thunder storms. At the beginning of this half month were two cold days; and the last of the month was cold, following the thunder storms of the hot weather on the 27th to the 29th. The morning of the 30th was 52°, while the heat of the 29th at 12 was 92°.

July began cold, as a consequence, and we had frost on July 1st; a hot day on the 2d with a terrible gale from the west, with rain more or less, so that frost occurred again on the 4th and 5th. In many places oats were injured, and grapes destroyed; in some, wheat was killed, as well as corn, beans, &c., as well as cultivated raspberries. The injury, though great, was far less than had been feared. The frost operated with great inequality. The heat of the first half of July has been close to the average. But the rain was very little till the 15th, when the drouth of much severity ceased by the earth receiving rain to the depth of 1.46 inches.

To the end of June, the flowers, wild and cultivated, were splendid, and the fruits and vegetables of the season, abundant and early. Strawberries in the greatest profusion, and cherries, both early and long.

Barley harvest began in this county on June 27th, while wheat harvest in Southern Illinois and Ohio was far advanced. July 6th wheat harvest began in this vicinity, and new flour was in market on the 12th.

On July 2d was the great gale of wind, in which the balloonists, leaving St. Louis at 6.40 P. M. of the 1st, and landing in Henderson, Jefferson county, N. Y., at 2.20 P. M. of the 2d, making the passage of 800 miles in less than twenty hours, or near 40 miles an hour on an average, and more for a part of it; so that they must have been in high wind all the time, and in the heavier part of it as

they descended near the earth east of Rochester. The gale of the 2d was a tornado at Mt. Morris at 2 P. M., at 10 in the evening at Albany, and down the Hudson and at New York; at 11 P. M. in Pittsfield, Mass., with great rain. Strawberries finished by this gale.

Mowing has been going on for a fortnight or more, in the crop of timothy, and the mowing of clover began still earlier.

From over the country comes the glad promise of a bounteous harvest. Let us rejoice and be thankful.

**THE CROPS.**—It is difficult as yet to arrive at any definite and satisfactory opinion in regard to the yield of the present harvest. The press of the country generally gives glowing accounts, but we fear there is a disposition to exaggerate. In this section, comparatively little wheat has been raised for a few years past. Last year a greater breadth of land was sown to wheat than for two or three years previous, though still not a fifth of the quantity usual before the advent of the midge. The crop of wheat on the land sown is a good average one where it was not injured by the frost. The midge has done little injury, especially to the *Mediterranean* and other early varieties. Barley is rather a light crop. Oats late, and considerably injured by the drouth. Corn and potatoes look well. Hay very light, and in some sections grasshoppers are very numerous and destructive. On old meadows the grass seems to have been winter-killed, and the crop in some instances is hardly worth cutting. Cherries never were finer or more abundant. Apples and pears generally good. Grapes very promising. Currants in this immediate vicinity were nearly destroyed by the saw-fly.—Raspberries suffered much from the drouth. Blackberries, where properly cultivated, give promise of an enormous yield. Peaches are a failure. We shall have a few plums in spite of the curculio.

Of the crops in other sections, our correspondents generally speak favorably; and as they are practical farmers themselves, their accounts may be relied upon. We make a few extracts from letters recently received:

W. H. McK., Warren county, Ohio, July 6th, says:

"The wheat harvest is about over, and in Warren county we have been very successful with our wheat. Corn was a good deal cut down by the frost, but is recovering. All other crops look well, except fruit, which will be scarce. We had a severe thunder storm a few days ago, which demolished timber and standing grain considerably."

J. L. K., Jefferson county, Ky., July 11th, says:

"Wheat is a large crop, bright and pretty. Barley and rye full crops generally. Oats better than last year, but still very light. Meadows quite light. Potatoes and corn are very short, and suffering seriously for the want of rain. Pastures pretty well burnt up."

J. A. C., McHenry county, Ill., July 9th, says:

"Some of our farmers who imported their seed spring wheat this season from Canada, will have a noble crop, while the rest will be short and very thin. Winter wheat was an entire failure; the farmers plowed up the greater part of it, and sowed spring wheat. Oats make but a poor show. Corn is thrifty, but the frost set it back so that there is danger of its yielding to that Old Dan Tuckerish failing of being 'too late for supper.' Grass will be an average yield. Fruit is plentiful in some places, but in low damp situations the frost made a pretty clean sweep of the trees. Wool growing here pays better than anything else."

P. B., Chester county, Pa., July 19th, says:

"Grass is generally light. Wheat is all harvested, and all turn out better than it has done for several years. Oats are very short, but will be well filled. Corn growing nicely, but is backward for the season; but if no unforeseen early frost should come, we anticipate a good crop."

M. T., Des Moines county, Ind., July 17th, writes:

"Corn looks very well, and Oats too. Wheat is a tolerably good crop."

J. B., Amherstburg, C. W., July 13th, writes:

"A good deal of wheat was sown here last fall. The *Mediterranean* is now being harvested, and is very good, and free from midge. Other varieties promise even better, although somewhat hurt by the midge. Crops of every sort give abundant promise, although corn is rather backward, and some anticipate the midge will take his toll out of the spring wheat."

R. W. S., Woodstock, C. W., July 13th, says:

"The unusual frosts on the evenings of the 4th and 6th of June caused a panic; but after seeing the results, we are the best judges as to the extent of injury. All admit that the fruit was destroyed except in a few favored localities. Corn and early potatoes were either entirely destroyed or so injured that we cannot expect a good crop from what is left. Tender vegetables, grape vines, &c., were cut down and rendered useless for this year. Winter wheat suffered to a great extent on new land, being so frozen that it died to the ground, from which it has since sprung up, and is now coming out in head; so that, if the weather be favorable, it may be an average crop yet. The *Mediterranean* and some other early varieties were in head at the time, and of course suffered considerably; and in almost every field of winter wheat some few spots may still be seen, by passing through it, where the frost left its mark. The greatest evil now existing, in regard to the wheat, is the midge. The fly made its appearance about the 22d ult. in immense numbers, and worked with great energy for four evenings; then for about ten days a constant breeze prevented them from depositing their eggs; so that the damage by that pest will not be as great as would have been had the evenings been calm. Around the outsides of the fields they are very bad; and in some townships in this county it is said that scarcely one head can be found that does not contain one hundred of the maggots and some upwards of two hundred. In this part of the county it is generally thought that after all we shall have an average crop, if it escapes the rust. The hay crop never was worse—scarcely worth cutting in many places. Spring crops, generally, look well, especially peas. Another month will end our suspense. This has been an extraordinary season throughout. Such sudden extremes of heat and cold—heavy thunder showers, summer frosts and violent winds—have seldom or never been witnessed before. On the morning of the "glorious fourth" it froze hard enough to damage melons, &c., and before the day was out, the mercury reached as high as 85°. To-day the mercury stands at 94° under the thick foliage of a clump of trees, and 110° in the sun. Perhaps by to-morrow night it may be down to 50° or below. This, I believe, is not peculiar to Canada, but to the extraordinary season."

**SOW TURNIPS.**—It is not too late to sow turnips. Plow up a wheat or barley stubble, harrow fine, and sow a pound of seed per acre. It will cost but little; and if the weather is favorable, you may secure a fair crop. If too thick, thin out with the hoe, and destroy the weeds. E. S. HAYWARD, of this county, informs us that he always sows a few acres of his stubbles with turnips, and usually with good success. He has raised 3,000 bushels in a season in this way. Fodder will be scarce next winter, and a few turnips will be very acceptable. A bushel or two of plaster per acre at the time of sowing, or after the plants are up, would probably be beneficial.

**LARGE EGGS.**—EDSON HARMON, of Clarendon, N. Y., sends us six hen's eggs, which weighed 13½ ounces, or over 3 ounces each. The hen is a cross between the *Dorking* and *Brahma*.

**SUBSCRIPTIONS TO THE HALF VOLUME OF THE GENESEE FARMER.**—We have received already upwards of two thousand new subscribers to the present half volume of the *Genesee Farmer*. Every mail brings letters from friends who enclose a dollar and the names of five of their neighbors whom they have persuaded to try the *Farmer* for half a year. We would return them our sincere thanks. In all these cases we have mailed the *Rural Annual* for 1859 to the person sending the club. If any have failed to receive it, we hope they will notify us and it shall be re-sent immediately.

Are there not many others who could induce five of their neighbors to try the *Farmer* for half a year? Will not you, kind reader, speak to a few of your friends immediately? Now is the time. We will send five copies of the *Genesee Farmer* for six months (July to December inclusive) for \$1; eight copies for \$1.50; and in either case send you the *Rural Annual* for 1859, (or any previous year,) pre-paid by mail. The subscribers need not all be at one post office. We will send the papers wherever you may desire.

OUR CASH PREMIUMS seem to attract little attention. Our friends who get subscribers to the *Genesee Farmer* evidently do it for the good of the cause, and not with any desire to secure the premiums. Still we have offered a liberal List of Cash Premiums, amounting to nearly one hundred dollars, and they will be paid to those forwarding the largest clubs, whether they intend to compete or not. There are many young men among our readers who might secure one of the largest of these premiums. We shall be happy to forward to all such, showbills, specimen copies, &c. For terms, premiums, &c., see last page of this number.

#### Inquiries and Answers.

**WHAT IS THE DIFFERENCE BETWEEN A CULTIVATOR AND HORSE-HOE?**—(S. M.) In this country, the terms cultivator and horse-hoe are used indiscriminately. For instance, the New York State Agricultural Society awarded a premium to an implement, in 1854, as the best "cultivator," and again to the same implement, in 1856, as the best "horse-hoe." In England, the term cultivator is applied only to implements used for cultivating the soil previous to sowing the seed, and never, as in this country, to such implements as are used for cultivating between the rows of growing plants. The latter are called horse-hoes, or, in some sections, "scuffles." It would save some confusion if the same rule was observed here by our manufacturers and writers.

**PLASTER ON CORN AND POTATOES.**—Will you or some of your correspondents be so kind as to inform me, as early as possible, if it is profitable to plaster corn and potatoes once or twice, and draw the plaster twenty miles, at \$5.50 per ton, besides incurring expenses every trip to the amount of \$1.13, which is toll on road, &c.? I shall be much obliged for any information on the subject.—W. H. PARKES, Farmington, Oakland Co., Mich.

In our experiments on corn (see *Genesee Farmer* for 1858, page 139), 100 lbs. of plaster gave an increase of ten bushels of ears of corn per acre. On potatoes, in the same field, 100 lbs. of plaster gave an increase of six bushels per acre. (See *Genesee Farmer* for 1858, page 105.) If any of our readers have made accurate experiments on these points, we hope they will give us the results.

**STONE COAL ASHES AS A FERTILIZER.**—I wish to make some inquiries as to the value of stone coal ashes as a manure. We burn anthracite coal exclusively here, and every farmer has a large heap at his back door. Would it prove valuable if thrown on the manure heap? I have tried it spread on the land and plowed in for corn and pumpkins with success, and on potatoes and turnips with equally good results. Buckwheat grown the year after corn, was nearly doubled in the field of the crop. On cabbages it was a failure. I would like to know the experience of those who may have tried it on other crops.—*Z. KNAPP, Luzerne Co., Pa.*

**CHINCH BUG IN INDIANA.**—I have been visited with that alarming pest, the chinch bug. They have destroyed several acres of promising spring wheat, and have now attacked about twenty acres of beautiful corn. I have none of your numerous readers discovered a method of destroying these invaders? I tried to burn the wheat and them with it; then plowed up several yards between the wheat and corn, made several deep trenches, and kept a boy and horse drawing a log of wood up and down them; but all in vain; they soon passed the trenches, and besieged the corn in such immense numbers I am afraid the whole will soon be destroyed.—*THOMAS GARNALL, Oxford, Benton Co., Ind.*

**CROPS FOR SWAMP LAND.**—I have a swamp covered with wild grass. Would timothy seed grow on it so as to kill the grass? Would it pay to make it into potato beds? Would turnips or carrots grow on it with profit? Or would it pay to put a few inches of clay on it? It was drained last fall. The muck is from four to twenty feet deep. It is quite solid till you break the sod, but then a horse will "mire."—*A. K., South Dumfries, C. W., July 6th, 1859.*

**LIME AS MANURE.**—My land is worn out, and I am told to burn lime and apply it. I have plenty of good stone for lime, and can make it at a small cost. I have the sediment in an old saw-mill dam, and some leaves and straw; but still I must use lime, and I should be glad of information on the subject.—*W. G. THOMPSON, Centre Co., Pa.*

**SOUTHERN WHEAT.**—I want to sow a field of wheat this fall with some southern variety. What will be the best kind? We have but two principal kinds here, the *Mediterranean* and *Kentucky*—the former doing by far the best.—*W. BROWN, Clark Co., Ohio.*

We hope some of our correspondents will answer the above.

**WHEAT LODGING.**—Our greatest trouble here in raising wheat, is that it lodges. If we put on enough farm-yard manure to raise thirty bushels per acre, it all goes down before it is out in head, and we get but half a crop. What is our remedy?—*L. R. McCONVILLE, Rockville, Pa.*

**FROSTED WHEAT STRAW.**—The winter grain in this section was all killed by the June frost. Will it hurt cattle to eat the straw, if it is well cured? Some say it will kill them.—*N. H. C., Holland, Pa.*

We can not see how it would hurt them.

**FISH POND.**—Is there any way to keep a fish pond clean from a green substance, called here frog-spittle? There are no frogs in my pond, but plenty of this green stuff. If there is a remedy, I should be glad to know it.—*N. H. C., Venango Co., Pa.*

**ENGLISH WALNUTS.**—Will you or some of your correspondents let me know what will make an English walnut tree hold its fruit? I have a tree that is healthy, and blossoms well, but the fruit falls off soon after setting.—*M. W. T., Centreville, Md.*

**BARREN HEIFERS.**—Will some of the readers of the *Genesee Farmer* inform me, through its pages, how to overcome barrenness in a two year old heifer.—*D., Gates.*

**ICE HOUSE.**—Could some of your readers give, through the *Farmer*, a good and cheap plan for an ice house?—*W. CHERRY, Highland Co., Ohio.*

**PLASTER FOR WHITE CLOVER.**—Does plaster do as much good on white as on red clover?—*O., Venango Co., Pa.*

**CUTTING COWS HORNS.**—Is there any means of changing the course of a cow's horn when it grows into her face, or is there any danger in cutting it?—*J. D.*

### Notices of Books, Pamphlets, &c.

**THE NEW AMERICAN CYCLOPEDIA:** A popular Dictionary of popular Knowledge. Edited by GEORGE RIPLEY and CHARLES A. DANA. Vol. 6. Cough—Education. New York: D. APPLETON & Co. 1859. D. M. DEWEY sole agent for Rochester and vicinity. Price \$3 per volume.

**PERSONAL RECOLLECTIONS OF THE AMERICAN REVOLUTION.** A Private Journal. Prepared from authentic Domestic Records. Together with Reminiscences of WASHINGTON and LAFAYETTE. Edited by SIDNEY BARCLAY. New York: RUDD & CARLETON. Price \$1.

**CHAMBERS' ENCYCLOPEDIA:** A Dictionary of Universal Knowledge for the People, on the basis of the latest edition of the German Conversations Lexicon. Illustrated by Wood Engravings and Maps. Part 3. New York: D. APPLETON & Co. Price 15 cents per number.

**NAPOLEON III—THE MAN OF PROPHECY;** or the Revival of the French Empire, anticipated from the necessity of Prophecy. By G. S. FABER, E. D. New York: D. APPLETON & Co. Price 37½ cents.

**THE ROMAN QUESTION.** By E. ABOUT. Translated from the French by H. C. COAPE. New York: D. APPLETON & Co. Price 62½ cents.

All the above books are for sale by D. M. DEWEY, of this city, or they can be obtained from the respective publishers, sent, prepaid by mail, for the price annexed.

### REVIEW OF THE MARKETS.

GENESEE FARMER OFFICE,  
ROCHESTER, N. Y., JULY 22, 1859.

Produce Markets generally have been dull, and declining. There is no speculative disposition manifest, and no confidence in present prices. The general opinion seems to be that the harvest which is now being gathered, will prove an abundant one. There are, however, complaints from some sections of the country, of damage resulting from the frosts in the early part of June. The crop is never quite safe until it is secured, and it may yet sustain serious damage in some localities, in consequence of heavy rains, succeeded by a close atmosphere. Nevertheless, with such large estimates of the product of wheat as have been recently published, it is safe to say that, if half the quantity predicted be ultimately realized, there need be no apprehension of famine for the next year at least, and certainly no cause will exist for famine prices. In Europe, generally, the weather has been very favorable. A want of rain has been felt in some parts, and a diminished yield is apprehended; but, on the whole, the prospect of an abundant harvest was good at the date of our last advices.

**FLOUR AND GRAIN.**—In these articles there is no activity apparent in any of the markets of the country. A liberal supply for the season exists, and a probability of lower prices restricts purchases. A large proportion of the stock of Flour on hand is of poor quality, and liable soon to become sour; much of it is unsound, and quite unfit for bread, or for human food in any shape. The stock of wheat's, perhaps, not large; but in the entire absence of any foreign demand, the market is without animation. Coarse grain, for the most part, in good supply, and dull of sale.

**PROVISIONS.**—In Pork, a moderate business has been done, and, with some speculative inquiry, more confidence is apparent. There is, however, a want of activity in the market, and prices are irregular. In other articles there is not much variation, and the demand is quite moderate.

**CATTLE.**—With very warm weather, and an increased stock, prices have declined. Purchases have been limited to wants for immediate consumption. Speculators for an advance have been disappointed in their expectations.



**WOOL**.—This article has been freely offered, and, with an equal disposition to purchase, the market has been quite active. There has been but a slight variation in the price in some markets, while in others a large advance has been obtained.

**ROCHESTER MARKET. — July 22.**

**FLOUR**—Market very dull, and a downward tendency is manifested. Western, \$4.50@5.50; Genesee and Canadian, \$5.50@7.50.  
**GRAIN**—Wheat is constantly declining. Perhaps good red may sell at \$1, and white at \$1.25@1.50. New in small lots may bring a higher price, but it is quite uncertain. Corn, 75c. Barley, 60c@70c. Rye, 50c@60c. Oats, 45c.  
**SEEDS**—Clover, \$1.50@3.75. Timothy, \$2@2.25. Flax, \$1.50.  
**PROVISIONS**—Mess Pork, \$17.00@18.50. Lard, 12c@13c. Hams, 11c@12c. Shoulders, 8c@9c. Butter, 14c@15c. Cheese, 8c@9c. Eggs, 14c@15c. Potatoes, 50c@60c. Dressed hogs, \$7@8.50.  
**BEEF CATTLE**—Live weight, \$3.50 @ \$4.  
**CALVES**—\$3.50 @ \$7 per head; 6c per lb. dressed, including the skin.  
**SHEEP**—\$2.25 @ \$3.50 per head. Lambs, \$1.50 @ \$2.50 each.  
**HAY**—\$12 @ \$16 per ton.  
**WOOL**—35c @ 45c per lb.

**NEW YORK MARKET. — July 21.**

**FLOUR AND MEAL**—Market dull and heavy, with limited demand. Superfine state, \$4.50 @ \$4.90; extra do, \$5.00 @ \$5.40; Western superfine, \$4.00 @ \$4.20; extra do, \$5.00 @ \$5.50; Ohio round-top, \$5.00 @ \$5.25 for old, \$5.30 @ \$5.50 for fresh ground. Southern Flour dull; Brandywine, \$5.25 @ 5.40; Georgetown, \$6 @ \$7.50; Petersburg city and Richmond city, \$6.75 @ \$8. Rye flour quiet at \$4 @ \$4.75. Corn meal—Jersey, \$3.75 @ \$4.1; Brandywine, \$4.25 @ \$4.34; punchons, \$2.90.  
**GRAIN**—Wheat heavy and lower; Southern new white, \$1.25 @ \$1.45; red do \$1.25 @ \$1.38; Chicago spring, 80c. Rye quiet at 85c @ 90c. Barley dull at 55c @ 65c. Oats dull; State, \$1 @ 44c; Jersey, Delaware, and Pennsylvania, 38c @ 41c; Southern, 34c @ 40c; Canadian, 40c @ 41c. Corn dull at 38c @ 39c for Western mixd; Southern, 92c @ 94c; round yellow, 90c @ 92c; unround, 85c.  
**SEEDS**—Clover, 8c @ 9c per lb. Timothy, \$2 for mowed; \$2.37 1/2 @ \$2.75 for reaped, per bushel. Red top, \$2.62 1/2 @ 2.81 1/2 per five bushel bag.  
**PROVISIONS**—Market dull. Mess Pork \$15.75; prime, \$11.75; prime mess, \$16.25 @ \$16.75; clear, \$18.50. Beef dull at \$3 3/8 for country mess, \$6 @ \$6.75 for country prime; \$3.50 @ \$4.13 for re-packed western; \$13.00 @ \$15.50 for extra prime. — Beef hams, \$15 @ \$18. Bacon quiet. Hams, pickled, 8 1/2 @ 9 1/2; dry, 8c @ 8 1/2c. Shoulders, 7 1/2 @ 7 1/2 for pickled; 6 1/2 @ 6 1/2 for dry. Lard, 10 1/2 @ 11 1/2. Butter—state, 16c @ 19c; orange county, 20c @ 22c. Cheese, 7c @ 9c.  
**CATTLE**—First quality, 9 1/2 @ 10c; medium, 8c @ 9c; ordinary, 6c @ 7c; extra good, 10 1/2 @ 10 3/4 c.  
**CALVES**—5c per lb. live weight for calves.  
**SHEEP AND LAMB**—range from \$2.50 to \$5 per head, according to quality.  
**HOGS**—Corn fed, 6 1/2 @ 6 3/4; still fed, 6 1/2 @ 6 3/4; per lb. gross.  
**WOOL**—Saxony fleece, \$6 @ 60; Merino full blood, 50c @ 55c; 1/2 to 3/4 do, 46c @ 49c; 3/4 do and Native, 40c @ 44c; pulled, 30c @ 50c, according to quality.

**PHILADELPHIA MARKET. — July 19.**

**FLOUR AND MEAL**—Market unsettled and demand small. Old superfine, \$5.50; new do., \$6.25; fancy brands of new, \$7. Rye flour, \$4 @ \$4.25. Corn meal, \$3.75.  
**GRAIN**—Wheat—prime new red Southern, \$1.40; white do., \$1.4 @ \$1.50. Old Rye 87c. Southern yellow Corn, 55c. Oats, 40c.  
**SEEDS**—Clover, \$5.50 @ \$7.75 per bushel.  
**PROVISIONS**—Market firm.  
**CATTLE MARKET**—Beef Cattle dull and lower with large receipts; prices range from \$6.50 to \$10.50 per 100 lbs., mostly at \$9 @ \$10. Sheep, 1c @ 1 1/2c per lb. gross. Prime Milch Cows, \$4.00 @ \$5.00 each; second quality, \$3.50 @ \$3.55; Dry Cows, \$15 @ \$20. Hogs, \$7.5 @ \$7.75 per 100 lbs. net.  
**HAY**—supply limited. Timothy, best quality, \$1.15 @ \$1.20 per 100 lbs.; new hay, 95c @ \$1.  
**STRAW**—Demand good at 70c @ 75c per 100 lbs., according to quality.  
**WOOL**—Sales of common fleece at 37c @ 40c; fine quality, 50c @ 55c per lb.

**BUFFALO MARKET. — July 21.**

**FLOUR**—Market quiet; demand chiefly for the better grades of fresh ground, which are held with more firmness. Inferior brands dull and declining. State from spring wheat, \$3.50 @ \$4; Western extras, \$4.50 @ \$5.50; double extras and favorite brands, \$6 @ \$6.50.  
**GRAIN**—Wheat dull and heavy with little doing; Western new white, \$1.30 @ \$1.40; red winter do., \$1.20; spring, 62c @ 70c. Corn steady with limited demand; sales at 75c. Oats, 41c @ 42c. Barley, 45c @ 50c. Rye, 50c.  
**PROVISIONS**—Mess Pork, \$16.50 @ \$16.75 for heavy; \$15.50 @ \$15.75 for light. Hams, 10 1/2 @ 10 3/4 for sugar-cured; 9c @ 9 1/2 for plain. Shoulders, 7 1/2 @ 8c. Lard, 11c @ 11 1/2c. Butter, 16c @ 18c. Hauberg Cheese, 7c @ 8c.

**CHICAGO MARKET. — July 20.**

**FLOUR**—White winter wheat flour, \$6; superfine, \$5.  
**GRAIN**—Wheat dull; new white, \$1.15; red do., \$1.10; old winter No. 1, 95c; spring No. 1, 75c; standard do, 56c @ 58c — Corn—No. 1, 65c; No. 2, 64c. Rye, 72c @ 75c. Barley, 45c @ 50c. Oats, 30c @ 35c. Beans, 5c @ 9c.  
**PROVISIONS**—Mess Pork, \$16. Hams, 9c @ 10c. Shoulders, 7c @ 13c. Lard, 11c @ 11 1/2c. Butter—prime qualities, 11c @ 12c; common dull at 9c @ 10c. Eggs dull at 9c @ 10c. Potatoes, \$1 @ \$1.12 for new; 65c @ 75c for old.  
**POULTRY**—Spring Chickens, \$1.75 @ \$2 per doz. Live Turkeys, 6c @ 7c per lb.  
**HIDE**—Market firm. Green city, 4 1/2 @ 6 1/2; do. country, 4c @ 4 1/2; salt, 5 1/2 @ 9 1/2; dry flint, 11c @ 12c; fresh pelts, \$1.5 @ \$1.75.  
**CATTLE**—Beef Cattle in good demand at \$2.50 @ \$3.75 for prime; \$2 @ \$3 for common to medium.  
**SHEEP**—\$2.50 @ \$3.25 per cwt.  
**HOGS**—Firm at \$2.50 @ \$5.50 for fat, and \$4.75 @ \$5 for stores.  
**WOOL**—Fleece—common native, 25c @ 30c; 1/4 to full blood Merino and Saxony, 3c @ 4c per lb.

**CINCINNATI MARKET. — July 20**

**FLOUR**—The Market is depressed and demand chiefly local. Superfine, \$1.75 @ \$4.90; extra, \$5 @ \$5.25. The demand is good for future delivery at \$4.50.  
**GRAIN**—Prime new red Wheat, \$1.05; do white, \$1.12 @ \$1.15. Corn—5c for white; 80c @ 9c for mixed. Rye dull at 60c. Barley quiet at 55c. Oats, 44c.  
**SEEDS**—Clover, \$5.25. Timothy, \$1.90 @ \$2. Flax —  
**PROVISIONS**—Mess Pork, \$15.00 @ \$15.75. Bacon firm at 9 1/2c for sides, and 7c for shoulders. Bulk meats firm at 8c @ 8 1/2c for sides, and 6c @ 6 1/2c for a shoulders. Lard, 11c. Butter—choice Western Reserve, 13c @ 14c; prime Ohio, 11c @ 12c. Cheese, 7c for prime Western Reserve.  
**HIDES**—The market is firm. Dry salted, 15c @ 16c; green salted, 12c @ 13c; green, 8c; flint, 16c @ 17c per lb.  
**HAY**—Prime old, \$15 per ton.  
**BEEF CATTLE**—In good supply and dull. Sales at \$2.25 @ \$4 per cwt. gross.  
**SHEEP**—\$1.25 @ \$3.50 each.  
**HOGS**—\$5 @ \$7.50 per cwt. gross.

**TORONTO MARKET. — July 20.**

**FLOUR**—Dull and declining. Superfine, \$5.50; fancy, \$6 extra, \$6.25.  
**GRAIN**—Winter Wheat, \$1.20 @ \$1.4; spring wheat, \$1.20 @ \$1.25. Market bare of Barley and Rye. Oats, 56c.  
**PROVISIONS**—Mess Pork, \$15; prime, 11c. Bacon—9c for green. Lard, 13c @ 13 1/2c. Butter active at 18c @ 15c for fresh. Eggs, 15c.  
**POULTRY**—Fowls plentiful at 40c @ 50c per pair. Ducks held at 35c @ 50c per pair.  
**CATTLE MARKET**—Beef Cattle abundant, with limited sales on account of the warm weather; prime, \$3 @ \$6; inferior, \$4 @ \$5 per 100 lbs on foot. Sheep in good supply at \$2 @ \$4 each. Calves, \$3 @ \$4.50 each. Lambs, \$1.75 @ \$2 each. Beef hides, 6 1/2c per lb.  
**WOOL**—But little offering. 27c @ 28c per lb.  
**HAY**—New, \$15 @ \$20 per ton. STRAW—\$8 @ \$10 per ton.

**LIVERPOOL MARKET. — June 24.**

**FLOUR AND MEAL**—Western canal Flour, \$5.04 @ \$5.52; Philadelphia, Baltimore, and Ohio, \$5.52 @ \$6.24; Canadian, \$5.76 @ \$6.24; sour, \$4.80 @ 5.25. Corn Meal, \$1.32 @ \$1.56 per bush.  
**GRAIN**—American white wheat, \$1.6 @ \$1.73; red do, \$1.37 @ \$1.44; Canadian white, \$1.41 @ \$1.55; do. red, \$1.3 @ \$1.37. Indian corn—white, \$1.15 @ \$1.2; yellow, 91c @ 94c; mixed, 90c @ 91c. All per bush. of 60 lbs.  
**WOOL**—Ranges in price from 12c to 84c per lb.

**LONDON MARKET. — June 27.**

**FLOUR**—American sour, \$5.70 @ \$6.24; sweet —  
**GRAIN**—Wheat—American white, \$1.82 @ \$1.56; do red, \$1.32 @ \$1.50. Indian corn—white, 96c @ 93c; yellow, 96c @ \$1.02, per 60 lbs.  
**WOOL**—Demand steady at full prices with a slight advance. 28c @ 45c per lb. for the range of domestic. Foreign—the finest qualities of German, Saxon, and Prussian, 50c @ \$1.08 per lb.

**BRIGHTON CATTLE MARKET. — July 21.**

At market, 1260 Beeves, 200 Stores, 2700 Sheep and Lambs, 560 Swine.  
**PRICES**—Market Beef—Extra, \$8.75 @ \$10.00; First quality, \$8.50; Second, \$7.00; Third, \$5.75. Working Oxen—\$10 @ \$120. Milch Cows—\$41 @ \$45; Common, \$20 @ \$21. Veal Calves—\$3.00 @ \$5.00. Yearlings—none. Two Years old—\$2 @ \$27. Three Years old—\$27 @ \$34. Hides—7 1/2 @ 8c per lb.—@ calf Skins—18c @ 14c per lb. Tallow—7 @ 7 1/2c. Sheep and Lambs—\$1.50 @ \$1.75; extra, \$2.75 @ \$3.50; retail, 5 1/2 @ 6 1/2c. Swine—Fat Hogs, 67c. Figs, 5 1/2 @ 5 1/2c. Pells—\$0.62 @ \$1.25. Beeves are sold here by the head, and at prices per lb. equal to the estimated weight of beef in the quarter, together with the fifth quarter, or the hide and tallow, at the same price, at a shrinkage from live weight agreed on by the parties—from 85 to 84 per cent.

## ADVERTISEMENTS.

**PURE CHESTER COUNTY PIGS**—From choice stock of Thos. Wood, of Penningtonville, Chester Co., Pa. for sale by August, 1859.—21\* D. CUTTS NYE, Lexington, Mass.

**SOUTH DOWNS**.—J. C. Taylor's Ninth Annual Sale of South Down Lambs will be held on the farm of J. G. Smock, near Hamblet, N. J., on Thursday, Sept. 8th. Sired by "World's Prize" (the \$20 ram). For particulars, send me for circulars, at Hamblet, N. J. and J. C. TAYLOR.

**FARMS FOR SALE**.—I offer for sale 1550 acres of rich and productive land, upon navigable waters, in Stafford county, Va., which would make four good farms, and would be sold at the following prices: Farm No. 1, at \$16 per acre; No. 2, at \$12; No. 3, at \$7.50; No. 4, at \$5. For information, address me at Accokeek P. O., Stafford Co., Va. J. B. JOHN MINOR, M. D.

## Lawton Blackberry Plants.

Address WILLIAM LAWTON, New Rochelle, N. Y.

Circulars Promptly Forwarded.

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**FARM FOR SALE**.—A farm of one hundred acres, within half a mile of the village of Middleport, Niagara Co., N. Y., is offered for sale on reasonable terms. It is well supplied with barns, sheds, orchards, and all necessary improvements, and is well watered. About 20 acres are good wood land, the rest under cultivation. Inquire of, or address THOS. F. SMITH, July, 1859.—31\* Middleport, N. Y.

**FANCY FLOUR SACKS**—beautifully printed, \$50 per 1,000. Paper Bags, various sizes, \$1.20 to \$2.50 per 1,000. Gunny Bags, extra size, \$13 per 100. Grain Bags of every kind. Manila Rope, 9 ets. per lb. Jute, 7 1/2 ets. Bed Cord—\$1.25, \$1.50, \$1.75 per dozen. M. VANDERHOOF, 171 West street, New York.

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ROCHESTER, N. Y.  
July 1, 1859.

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# The Gene See Farmer

PRACTICAL AND SCIENTIFIC FARMERS OWN PAPER

OL. XX, SECOND SERIES.

ROCHESTER, N. Y., SEPTEMBER, 1859.

No. 9.

## FALL PLOWING.

"WHAT is your opinion in regard to fall plowing?" asks an esteemed correspondent. "I have a field I intend planting to corn. Would it be better to plow it this fall, and then cultivate it before planting, or to let it lie as it is all winter and break up in the spring?"

If an old sod, on rather heavy soil, we should certainly prefer to plow it in the fall, unless it is very hard and wet. If a young, healthy clover sod, on light soil, it might be better to let it lie as it is all winter, and not plow it till just before planting. The clover would be several inches high, and when mowed under in the spring would help to enrich the land; and it is said that the grubs will feast on the clover and leave the corn plants unmolested.

The great error in fall plowing is in not plowing early enough. It should be done immediately after the wheat sowing is finished. The teams can be spared then as well as later. Plowing late in the fall, when the ground is cold and sodden, is of questionable benefit. An experienced farmer in England once pointed out to us a portion of a field where turnips that looked much superior to the turnips in the adjoining field. On inquiring the reason for this difference, he said that both portions had been treated alike, except that the part which looked the best had not been "pin-fallowed"—fall-plowed. The other portion turned out to be that the land was not plowed till December, when it was too wet; and the next spring it was raw and lumpy; whereas the other portion turned up fresh and mellow. The fact is not one which militates against the practice of fall-plowing, but against plowing land when it is too wet.

We recollect of seeing a piece of low wet ground, near this city, plowed late in the fall. It was a rough sod, and was turned over in wide, flat furrows. During the winter it presented an almost broken sheet of ice, and in the spring was so wet and raw that it was with difficulty got ready for planting. Such fall plowing is not to be commended. Had it been plowed early, and in narrow

and high ridges, and the dead-furrows cleaned out, and a few surface ditches cut, so that the water could have passed off, the result would have been far different.

Some good farmers in this vicinity plow their corn land in the fall, and then sow it to barley in the spring without plowing again. One of the advantages of this plan is that the barley can be sown earlier, and a portion of the work which otherwise would have to be done during the busy season in spring, is done in the comparatively leisure season in the fall.

F. HOLBROOK, Esq., of Brattleboro', Vt., makes the following judicious remarks on this subject, in the *New England Farmer* for 1853, which are worthy of reproduction at this time. He says:

"From the last of October to the middle or later of November is a good time for plowing land preparatory to sowing or planting it the following spring. The autumnal weather is cool and bracing, and the oxen and horses are strong and hearty for the work; while the temperature of the spring season is more relaxing, and the animals of draught are then apt to become laggard and faint,—particularly at the business of overturning green-sward. To be seasonable, spring work must at best be despatched in a great hurry, and it is a relief and advantage to have the plowing done in the fall. If land in corn-stubble is first well harrowed, so as to pull open, and level down the hills and scatter the stubbs about, then plowed in the fall, the stubble, lying beneath the furrows through the winter, will not be apt to come to the surface by harrowing in the spring; the grain and grass seeds can be committed to the already prepared ground, at the earliest suitable day in the spring, the surface of the newly-stocked land will be smooth, the seeds equally distributed in harrowing, the crop of grain will be early and thereby luxuriant, and the young grass, having the benefit of the early rains, will get good root, be more likely to survive the heat and drought of summer, yielding a full bite of aftermath in the fall, and good succeeding crops of hay. Sod-land plowed in November, will be free from growing grass in the spring, the roots of the late overturned sward being too far deadened by the immediately succeeding winter to spring very readily to the surface. The plowed land, after being subjected to the frost of winter, will readily disintegrate and

crumble down in fine particles when harrowed in the spring,—yielding a mellow seed-bed and facilitating the business of planting and the first hoeing, and the manure applied can be readily and nicely mingled with the kindly soil. Corn planted on sod furrows turned the fall previous, will not be so liable to injury from the copper-heads or cut-worms which eat off the young stalk at the surface of the ground, as though the land had been plowed in spring. So great heretofore have been the deprivations of these worms on my young corn, when planted on the sandy intervals which were broken up from grass in the spring, that now the meadow land which is to be made ready for a corn crop, is invariably plowed late in the fall. By means of this precaution the ravages of the worms have been pretty much prevented, but few hills of corn being entirely destroyed,—indeed, in passing through seven acres of corn to-day, vacant hills were not discovered, though looked for, and I think there can not be enough loss of crop from this cause to be of much account."

#### HINTS ON HARVESTING CORN.

OWING to the deficiency of meadows or artificial grasses, it has long been the practice in the Southern States to strip off the green leaves of Indian corn and cure them for fodder. The leaves below the ear are first removed, and immediately afterward the stalks above the ears are cut, and, together with the lower leaves, are cured and stacked.

This time-honored practice is now condemned by the ablest writers in the South. Numerous experiments have been made, and show a loss of grain from the operation. DR. THOMAS MARSH, of Nelson, Va., found that 8 rows of corn, extending through a field, left without removing the fodder, produced 17½ barrels of measured ears; while alongside of this strip, 8 rows (4 on each side,) stripped and topped as usual, gave only 16 barrels—a difference of nearly 12 per cent. W. S. FONTAINE, of Virginia, found that the practice entailed a loss of 6 bushels per acre. EDMUND RUFFIN, of Virginia, one of the earliest and ablest of American agricultural writers, strongly condemns the practice. In an able essay on the subject he well says:

"So long as the leaves of corn are green and succulent, and have not begun to fade, and whether below or above the ears, they still continue to furnish nourishment to the grain, and are necessary to its perfect filling. \* \* \* \* \*

"As the ordinary mode of taking off all the leaves kills the corn plant immediately, of course the stalk might be cut off at the same time, with no more injury to the filling of the grain. But both processes would be injurious. Therefore, the cutting down should be delayed until the leaves generally have ceased, or are about ceasing, to supply nourishment to the plant. This safe time may be known by the first appearing of either of two indications. One is, when all, or nearly all, of the

leaves below the ear have lost, or are fast losing their green color, and are mostly yellow, or dry. Or even if the lower leaves remain mostly green, is safe to cut down the stalks, if the shuck white encloses the ear is beginning to turn yellowish which is a safe indication of ripeness."

Stripping off the lower leaves is not practiced the North, but the allied practice of topping has still a few advocates. The arguments against the one hold good against the other. H. STRATTON of Winfield, Mass., says: "In this town both ways have been thoroughly tested, and the prevailing opinion now is that cut up corn is not only the safest, but that the yield is from five to ten bushels per acre more than when topped." A Vermont farmer gives it as his opinion, that in topping a heavy crop of corn there is a loss, in the extra labor, and in the loss of fodder and grain, amounting to from five to ten dollars per acre.

ALBERT TODD, of Rhode Island, says: "It is been my practice, for several years past, to cut and stook my corn in the field as soon as it becomes thoroughly glazed. The first year that I commenced cutting up my corn, I only cut up part of my field; the remainder, I topped the stalks at the old-fashioned way. I tried this new method merely for an experiment, as I had very little faith in it; and on harvesting, I found that the corn up at the roots was not only fit for harvest earlier, but the corn was equally as sound, and smaller ears were sounder. I did not find near much "hog corn." This is generally the case cutting up corn at the roots; small ears but just milk will mature better than those left stand after the top stalks are cut. If stalks are taken from the ears before the corn is tolerably glazed sound corn need not be expected; whereas if cut up at the bottom, in the same condition, generally become hard."

In this section corn is rarely topped. It is cut up close to the ground, and either tied up in bundles or placed loosely in large shocks. In the former case, two rows are taken, and about six hills placed together on the ground to be tied up by the bundles following. From five to eight of these bundles placed in a stook, and bound round with one or two bands at the top. If properly stoked, corn can be left in this way for weeks, or even months; but it is better to commence husking soon as the corn is dry.

Stocking without binding into bundles is, I think, a more expeditious method. A good way is to take seven rows, cut up three on each side and form the stock on every third or fourth hill the centre row. This gives from twenty-one to twenty-eight hills in a stook. The hill around which the stook is formed is left standing for support, and is easily cut at the time of husking. The top of the corn is grasped with the left hand

d cut off at a blow with the right; and unless very large, by commencing on the outside row, the three hills can be cut up and carried to the stack at once—the whole being done in far less time than it takes us to describe it. The stook is bound at the top with suckers, or rye straw,—if you are a poor cultivator, with weeds.

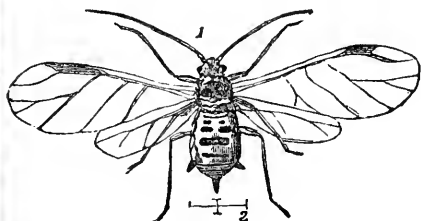
Cutting up corn in this way, though heavy work, is to us, with a good hook and spirited associates, one of the pleasantest of harvesting operations. As soon as the ears are well dried, the corn may be husked, and the stalks tied up in bundles and set again in large stooks, where they can remain sufficiently dry to stack.

It is well to draw in a few stooks and stand them on the barn floor, where they can be husked on dry days.

Corn stalks are quite valuable as fodder, if well dried, and the corn was cut before it was injured by frost. They are, however, often mildewed and rendered comparatively valueless by being stored away in a large bay when not sufficiently dry. An occasional layer of dry straw would do much to prevent this; and if a large sack was filled with raff or cut straw, and the bundles placed round the middle of the bay or stack, pulling up the stack as you ascend, it would leave a kind of chimney through which the moisture would ascend and pass off. This is a common practice in stacking up hay in England, and is found very efficacious.

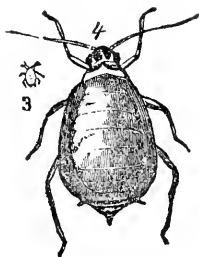
PLANT LICE—APHIDES.

THESE are among the most extraordinary insects with which the farmer or gardener is familiar. They are found upon almost every plant, and upon all parts of the plant. They are exceedingly prolific, and the succulent leaves and extremities of plants will often become coated with a living mass of these insects in a very short time. These are usually wingless, consisting of the young and females only; the winged individuals or males, appearing only at particular seasons, and after pairing



with the females soon perish. They are small, soft, and of a greenish tint, covered with

white down-like spots. They remain fixed, as it were, to the plants by means of their tubular beaks, through which they suck out the sap, and when surcharged with juice they get rid of it by discharging it through two little tubes at the extremity of their bodies. This juice has been given the name of honey dew, and is greedily devoured by the ants, which may be observed in great numbers on plants where the aphides abound. The ants are said to suck the tubes of these insects, from which circumstance they are in some localities known as the ant's milch cows. Our engravings



3

represent the species found on the leaves of the cabbage, *Aphis brassicae*. Fig. 1, the male, greatly magnified; fig. 2, natural size; fig. 3, female, natural size; fig. 4, magnified. They are largely preyed upon by various other insects, among the principal of which are the lady birds and the *Aphis*

*lions*. They may be destroyed by washing the plants with soap suds or a weak solution of potash.

We give a cut and short description of the *Aphis lion*, (fig. 5,) an insect belonging to the order *Neuroptera*.

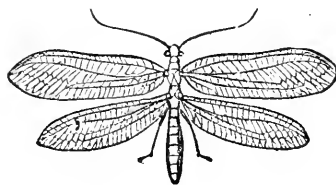


Fig. 5.—APHIS LION—EGGS, LARVA, AND PERFECT INSECT.

The larva makes its appearance in May, and may be observed walking about on the leaves of the plants, resembling more a mass of cottony-like matter than an insect. This covering is composed of the fragments of the skins of aphides it has destroyed, which it throws upon its back after sucking out the vitals. It changes into a pupa at the latter end of summer and remains in that state through the winter, and the fly emerges in the spring and lays its eggs upon the leaves of plants, attaching them at the end of a long silken thread hanging from the leaf, giving them the appearance of numerous fungi.



## SPIRIT OF THE AGRICULTURAL PRESS.

**CHEAP SALT FOR MANURE.**—Mr. V. W. SMITH, Superintendent of the Onondaga Salt Works, Syracuse, N. Y., announces, for the benefit of those farmers that are disposed to make use of salt as a fertilizer, that it can be had in any quantity at Syracuse for seventy-five cents per barrel; or at a price not exceeding eleven cents per bushel, shipped loose on the canal boats at that place. Mr. SMITH says it will afford him great pleasure to attend to any orders for the salt, gratuitously, so far as his personal services are concerned. Those who wish to sow salt on their wheat this fall, can now obtain it at a very cheap rate. A barrel per acre, sown broadcast, is the usual quantity.

**COAL ASHES AS A FERTILIZER.**—An exchange gives the following experiment by an English farmer: He marked off three patches in a clover field, each containing one rod of ground. The first had no manure, and produced 38 lbs. of clover, cut in full bloom. To the second was applied four quarts of sifted coal ashes that had not been exposed to the weather; this produced 50 lbs. of clover. On the third patch one quart of plaster was sown, and the crop from it weighed 54 lbs. In other words, the land without anything gave 3780 lbs. of green clover per acre; with coal ashes, 8000 lbs.; and with plaster, 8640 lbs. These experiments were on too small a plat of ground to be reliable.

**CULTIVATING CORN TOO MUCH.**—A correspondent of the *Michigan Farmer* thinks that corn can be, and often is, cultivated too much. He says his neighbor tilled his corn seven times, and it is now only shoulder high, while his own that was only plowed thrice is three feet higher. He thinks corn gains nothing by being cultivated after harvest time, and says it should be planted early and well nursed while it is young, and that when it gets strong it is best to be left alone. He recommends going carefully over the field at the time the corn is beginning to ripen, and selecting the ripest, firmest and toughest ears, and husk and preserve them on the cob in a dry place, for seed.

**MILKING IN SILENCE.**—At a meeting of the Farmers' Club at West Cornwall, Conn., one of the members observed that no talking should be tolerated in the yard or among the cows, while milking was going on. Another said he had discharged a man because he would talk and interrupt the milking in his dairy, and that in three days afterward the increase in the yield of milk was equal in value to the amount he would have had to pay the man in wages.

**HOEING POTATOES WHEN WET.**—A correspondent of the *Prairie Farmer* states that having noticed how potatoes were interrupted in their growth, and invariably pined away and died, if disturbed and bruised when wet with dew or rain, tried the following experiment: He selected a patch in his potato field, had it plowed only once, and then loosened the soil with the hoe when the vines were above ground, and in the heat of the day when they were perfectly dry. He never touched them afterward till they were dug in October. These vines kept green, and the yield of potatoes was very large. The other portion of the patch was worked three times, and when the vines were wet with dew. These blighted early, did not produce half a crop, and that of a very inferior quality. The ground, seed, and time of planting, in both patches were the same.

**USEFULNESS OF BIRDS.**—The *Homestead* says until a few years ago the park at Brussels was shaded by trees of luxuriant foliage, the branches of which bent over the alleys and screened the promenaders from the sun. These trees were filled with birds, whose droppings occasionally annoyed the promenaders. For this reason the birds were banished. In a few weeks the leaves of the trees were in holes and dying, and now the branches are nearly stripped of their verdure and loaded with caterpillars, and the walks infested with moths. Such is the effect of interfering with nature, a destroying the equipoise she has placed against the undue increase of any one of her creatures.

**HOW TO MAKE A BALKY HORSE PULL.**—A correspondent of the *Cotton Planter* gives a method of making an obstinate horse or mule pull up a hill or any where else, when his muscles are equal to the work. "Take a small rope, double it, make a loop at the double end, and draw it snugly around the under jaw of the animal, just below his front teeth, with the loop underneath. Throw the loose end over your shoulder and 'walk in the way should go,' holding fast and pulling steadily and firmly. Don't be troubled about him, for he will follow without fail after he has discovered how you have 'got him.' This method will also compel an animal to stand still and allow a bridle or collar to be put on him."

**GRASSHOPPER FEED.**—The *California Cultivator* says at Los Angeles, California, they cultivate a foster the growth of weeds for the purpose of feeding the grasshoppers, which, finding plenty of green, succulent vegetable food, spare the grain and ripe vegetables, trees, vines, &c., which they would otherwise entirely destroy.

**AN INSECT THAT DESTROYS GRASSHOPPERS.**—The *Cobourg* (C. W.) *Star* says considerable attention has been devoted lately, in that neighborhood at least, to the observation of a parasitical insect which is proving a most efficient and welcome destroyer of the grasshopper. Our attention was first drawn to it by ASA A. BURNHAM, Esq., who shewed us two or three specimens on the bodies of defunct grasshoppers. We have since examined two under a 300 power microscope, but find it rather difficult to describe a creature so utterly destitute of limbs. It is of a bright vermilion color, and possesses a sort of sucker by which it fastens on to the body of its victim with a bull-dog tenacity. It appears to eat away the body of the unfortunate grasshopper, sometimes tearing out comparatively large pieces. We noticed a sort of horn in the neighborhood of the sucker, but no other definite limbs of any kind. It appears simply a fleshy mollusc somewhat longer than broad. The bright crimson was relieved, in the specimens we saw under the microscope, by a foreign silvery substance which covered the surface of the body in different places like gauze of exceedingly fine frost-work. Its favorite locality is just under the wings. We heartily wish it a keen appetite and a good digestion!

**HOW TO PREVENT SORE SHOULDERS IN WORKING HORSES.**—The *Boston Journal* says, the plan we have tried and never found to fail, is to get a piece of leather and have it cut into such a shape as to lie, snugly, between the shoulders of the horse and the collar. This fends off all the friction, as the collar slips and moves on the leather and not on the shoulders of the horse. Chafing is caused by friction; hence this remedy is quite a plausible one, and is much better than tying slips of leather or pads of sheepskin under the collar.

**CARROTS FOR FEEDING POULTRY.**—Some one in the *Southern Homestead* strongly recommends the use of carrots, chopped fine in a sausage cutter, for poultry.

**WEATHER, CROPS, &c., IN MAINE.**—The month of July, 1859, was one of the dryest recorded; there was no rain storm for the month, nor has there been any up to this time. We have had occasional showers, but the crops are suffering for moisture, particularly corn. We have experienced one of the best seasons for securing the grass crop it has been our lot to receive for years. It was got in in good order and time, and is of superior value for feeding. The crop has been equal to former years. Potatoes are as yet free from rot. Grain looks fair. Fruit, poor. The monthly mean of heat for July at this place was 72 deg.; hottest day, 12th, 82 deg.; coolest, 4th, 61 deg. Hottest day yet of August, 5th, 81 deg.; noon-to-day thermometer indicated 82 deg.—G. E. B., *Belfast, Me.*

### GROW GOOD GRASS AND KEEP GOOD STOCK.

We make the following extract from an article in the *Southern Field and Fireside*, a new and spirited journal recently started in Augusta, Ga., the agricultural department of which is edited by our old friend Dr. DANIEL LEE:

"At no time within the memory of man have wool-growing, and the rearing of horses, mules, and neat cattle been so remunerative in this country as they now are; nor is the supply likely to equal the demand for generations to come. All our national habits and customs operate against the systematic improvement of land. This will render the profits of such as act wisely in the matter of stock husbandry, both large and certain. No one should wait till his fields cease to produce good crops of cotton, corn, and wheat before he seeds them down to the best European grasses; for if he does, it may be too late to realize any profit. No one can stop too soon the bad practice of wearing out the land he cultivates. By keeping breeding mares and raising fine colts, or by keeping sheep, a farmer may easily improve a farm without plowing a tenth part of it. After the soil is nearly exhausted, the family must still get their bread from it, and as at the North, live stock will be driven off the premises. When one raises no more corn than the children need, it is easy to see that but few hogs will be fatted on this grain. Something like this state of things reduced the number of swine nearly two million head from 1840 to 1850, where there ought to have been an increase of a like number. Similar causes reduced nearly twelve million head of sheep to a fraction over five million.

"It is choice cows, sheep, horses, and mules, that yield the greatest returns to skilful husbandmen. The production of scrubs, or mean stock of any kind, is rather a mean business in a pecuniary point of view. Raise superior animals on rich perennial grasses, if you seek a good income from your farm in stock husbandry. Such animals may obtain a part of their living from unimproved old fields, particularly sheep; but they want good clover and pea hay in the winter, or hay made from the English grasses. The most prominent error in stock growing is the attempt to rear fine hogs, cattle, and sheep, on scanty and defective food. Some want a good deal of meat, milk, or wool, from little or nothing. They ask nature to make them rich, while they lie in the shade in summer, and set by the fire in winter, and leave their poor animals to nearly or quite perish from neglect. Give stock the same diligence and care bestowed on a crop of cotton, and the profit will be far greater, because the one branch of business is now pushed rather too far, while the other is sadly neglected. Hence, there is more money in growing horses, mules, and wool than in growing our great commercial staple. Let us diversify our agriculture, and learn to make a little labor go a great way by pursuing a system of wise husbandry."

**HEATING NEW MILK.**—I have practiced heating new milk in cold weather for ten years. It makes the cream rise better and churn with less trouble, and greatly improves the butter.—N. W., *Hornellville, N. Y.*

## GRAZING SHEEP.

SHEEP, in order to thrive on grass, require a short, sweet, and nutritious herbage; and to this end clover is especially adapted for them. Less attention is paid to the special wants of each kind of stock, as regards the preparation of pasture lands for them, here than in England. Our grasses are coarser, and grow more rapidly than there; and every farmer here keeps a variety of stock, and herds them together too much. Sheep do well in a pasture after other stock have eaten away the first coarse growth, provided the after-growth has well started, and no greater number are kept on the pasture than is consistent with keeping the grass up to a certain point—say so high as to hide the feet of the sheep from view when standing in the field. Breeding ewes with lambs at their sides require such pasture as will enable them to give a steady and uninterrupted flow of milk, up to the time of weaning. Lambs are usually weaned during the month of August, and at this time the ewes may be turned into a bare pasture or stubble for a few weeks, till their milk dries up; after which, they should be brought into good condition again before the time of putting the rams with them. Lambs, when separated from the ewes at weaning time, are usually placed in a field of young clover by themselves, where the grass is rich and succulent. In England they are allowed a small portion of oil-cake, daily, in addition to the pasture. Rams require to be separated from the ewes before weaning time, and should be got into as high condition as possible, without making them too fat and indolent, by the time they are to be again placed in their company. Great attention is necessary in selecting good-sized, well-shaped, thrifty animals to breed from; and on no account should a badly-shaped or unthrifty animal be retained, merely because it possesses good blood or came from a good stock. Like breeds like, and defects are much easier to propagate and inherit than excellencies. Every exceptionable animal should be condemned to the knife of the butcher without mercy.

On the subject of the grazing of fatting sheep, we think we can not do better than give the views of a writer in the London *Mark Lane Express* of June 27th, 1859:

"It is now becoming the almost universal custom to accomplish the fatting and preparation for market of all the sheep stock not required for breeding purposes, at an early age. Fattened sheep now seldom exceed twenty-one months, and are only shorn once. There are various modes of fatting sheep stock, according to the precise character of the pastures upon which they are grazed. The best mode on the common grass fattening pastures is

this; Let the pasture be laid in for the most part during the winter, or certainly not later than the 1st of February. It will then have time for the soil to lighten, the roots to expand, and the blades of grass to put forth. When it is well greened over, *i. e.*, the grass itself is fairly seen, it is ready for a partial stocking, and a few of the best sheep may be drafted into it, so that they may be getting forward, ready to be sent to market as the pasture requires easing in the summer. As the pasture improves, more may be added, according to the requirements of the pasture: for it must be borne in mind that these fatting pastures must be kept in a true fatting state, or the sheep will not thrive fast enough. They must be kept short, thick, and of a uniform growth of from 1½ to 2 inches in length. No tufts or hassocks must on any account be permitted to accumulate or stand. For this purpose a horse or two in a field, or a few young cattle, as "*beatens*," are desirable adjuncts to good sheep grazing; and, if my readers won't smile, I would say a small flock of *geese* would be an additional help to the well-doing of the sheep. They crop the long coarse blades of grass, the buttercups, the sorrel, many weeds, and other not very desirable herbage.

"Our best sheep-grazing lands will thus admirably fatten the stock put upon them; but should the land and herbage not be of this first class order, then resort must be had to corn or cake to bring them equally forward. It is exceedingly good practice, too, on almost any land, as it not only helps the best lands to fatten them faster, but it enables all lands to carry more stock, and adds greatly to their grazing powers. Grass lands are amazingly improved by this mode of grazing. The writer has about seventy acres of grass land upon which this course has been practiced with great success; and if the prices of wool and mutton retain their present rates, he will adopt it up in the grass of his whole occupation. Inferior grass lands have thus been converted into very useful fatting pastures, carrying a large amount of heavy sheep. The number of sheep fatted per acre upon these and similar lands would average about seven light-wooled, and six to seven heavy-wooled sheep; and what is remarkable this year is, that the light wool is not worth so much per lb. as the heavy wool. We are speaking of fatting pastures, not of the general pastures devoted to grazing the breeding flock and store flock; these may be depastured in greater numbers. It is superfluous to remark that these grazing lands must be kept clear of weeds, *i. e.*, thistles, nettles, ragwort, and every other pest."

ROUPE IN CHICKENS.—The *Cottage Gardener* says: "Wash the head once or twice daily with tepid water, and give one grain of sulphate of copper daily, mixed in oatmeal mashed with ale. Separate the infected fowl from the others; give it only soft food, but an unlimited supply of grass, lettuce, and other greens. If not better in a week, kill it."

THE reason that the Cockle-bur, that great pest on farms, can not be destroyed by being cut off once a year, is that nature has provided for its propagation by bestowing on it seed vessels which ripen at two different times of the year.—*Western Farmer and Gardener.*

## FAT PRIZE CATTLE—JUDGES SHOULD BE FIRM.

THE following extract from the speech of Captain TANNER DAVY, one of the judges on Devons at the recent Exhibition of the Cornwall (Eng.) Agricultural Society, is not wholly inapplicable on this side of the Atlantic:

"In behalf of the judges of Devon cattle, I beg to thank you for the honor you have done us. I hope our decisions have given you satisfaction; they have satisfied us, and I hope they have satisfied you. I don't much care whether they have satisfied you or not. You put the matter into our hands to decide. I knew no person in the county; I knew no person's stock. We decided according to the best of our ability. No doubt there must be dissatisfaction, because every exhibitor going into a show-yard is prepared to look with a very powerful magnifying glass at the good qualities of his animal, and he does not see any defect. We (the Judges) must apply powerful glasses to see the defects, and must award the prizes to those animals that possess the greatest number of good points—the greatest quantity of beef on the most valuable parts. As soon as my decisions were over, I took off my badge and walked about the yard to hear the remarks. One hot-headed old gentleman said we ought to be put in the train and sent off to Devonshire. I asked him to be kind enough to tell me what it was all about; he pointed to a second-rate bull in the old class, and said it was better than the first-prize bull. I said, 'Why it is a year and four months older, and yet it girths only one inch more; and that is very little for an animal to grow in a year and four months.' That he admitted; 'but,' he said, 'tis a better bull altogether.' I told him the first-prize bull was of a very much better quality, from head to tail. He said he had nothing to say to that, but the other was a better bull. On that I said 'I have nothing more to say to you,' and we parted company. Some of our friends have remarked that Cornishmen have been found fault with, for not knowing how to farm. But they know how to make young bulls very fat at a very early age. There's no doubt of that. My friends and I have often before been called on for this sort of work; and therefore Cornish fat could not entice us from certain animals which had tendency to fatten. I contend it was our duty as Judges, not to be led away by fat animals, but to see if there were not other animals, in fair condition, with a tendency to fatten, and of much more even shape. I would draw attention to the first-prize bull and the third-prize bull in the second class. They would be called by some persons two small, poor little things. But why? Only because so many cwt. of oil-cake had not passed through them. Put as much oil-cake or other nutritive matter into them, and put them side by side with others, and then see how they would look. But, you know, fat will not often cover deficiencies. These little animals that we have awarded the prizes to were not fat, but they have a tendency to fatten, and it would require more powerful eyes than I possess to point out any deficiencies in their present state. I should not be afraid to meet any gentleman dissatisfied with our awards, and if he would walk about the yard with me, I would fight

him, from head to tail, as to any animal that has won a prize. There was among the cows an animal that you may wonder did not get a prize. We did not notice her at all. One gentleman informed me that we did not know anything about it. I replied, 'Very likely not,' but I said, 'The prize is offered for Devon Cows, as milking cows. This cow is owned by a gentleman I have known many years. She is a very beautiful animal—of beautiful quality, and the best shaped cow in the class, in my opinion. But she gave milk only at one teat; and I did not consider that a cow so injured was a fit animal to receive a prize as a milking cow. In agriculture, milk is a rather important element of produce, and butter sells at a good price. We know that it is an all-prevailing law in the animal kingdom, that like produces like; and I believe that the offspring of that cow would be diseased—not to the same extent, but in the same way that she herself is. For that reason we did not award her a prize. I have mentioned these reasons to you, and let all who are dissatisfied go home and ruminate upon them. I would appeal to any practical man of unbiased mind, whether they are not reasons that ought to weigh with those who have the duties of judges in a show-yard.'

At the same meeting, Mr. PHILLIPS, of Totnes, one of the judges on Short-horns, spoke for the Short-horns much after the same fashion as Capt. DAVY did for the Devons:

"I am now going," he said, "to advert to a subject which has already been introduced. It is a growing evil, and one that ought to be put a stop to, the exhibiting on these occasions stock that have been artificially brought to an unnatural size, only for the purpose of getting prizes. It is an injury both to the public and the breeder; because such animals seldom breed; and if they do, they rarely produce good stock. I believe the remedy is in the hands of the committees who appoint the judges. You know full well that on many occasions there is placed in the hands of judges a rule that they should not award prizes to stock in an unfit state for breeding. The question is, do they adhere to that? I say not. Invariably this question is entirely overlooked, because they who have the management of these societies consider that if they were to carry out this rule they would injure the show, as such and such fat stock from certain breeders would not be exhibited. But I contend it would not be so. Carry out that rule, and you would find that these societies would have much more beneficial effect than they have now. You would find those gentlemen who declined to exhibit would soon return, and would exhibit their cattle in a natural state. Further than that, there are many who now refuse to exhibit very good stock, because they know that on these occasions the prizes are awarded, not to the most skilful breeders, but, very often, to the most extravagant feeders."

The *Mark Lane Express*, alluding to these remarks, well observes: "Our readers know how long this has been our own argument, and how thoroughly it is justified. It is this over-feeding that brings prize stock into such disrepute—that lands them in America and the colonies dear bargains and barren butcher's beasts. It is this that tends to all the humbug and secrets in the man-

agement of a herd, where one set of animals are kept for use, and another for show. It is this that deters so many good men from ever exhibiting at all. The remedy, however, rests clearly with the judges. No matter how ready the Stewards or the Council may be to pass over the abuse, let them only act up to, and speak out, like Captain DAVY and Mr. PULLIPS, and they may soon do a deal of good. Never mind what interested people may say who have dairy cows too fat to give milk, or bulls too pampered to get stock. If they are fit to be judges at all, they can estimate fairly-fed animals quite as correctly as they can the over-fed. And a man who prizes a beast at a breeding show chiefly because it is made up for a Christmas one, is simply sanctioning an absurdity, a contradiction, and a delusion—if not a dishonesty.”

#### JONAS WEBB'S SOUTH DOWNS.

THE *Mark Lane Express* of June 27th contains an account of a visit to Babraham, the residence of the world-renowned breeder of South-downs, Mr. JONAS WEBB. After a lengthy account of Mr. WEBB's herd of 142 head of Short-horns, the writer says:

“Before we sallied forth again to the two outlying farms, we turned for a slight interlude from beef to mutton. Even in our Short-horn researches in the Home farm, the embodiment of the latter was always in view, in the shape of “Derby” reduced two-thirds, and doing duty as weathercock, on the top of the old barn. The leg of mutton point on which he was so great, has certainly been made the most of by the modeller; but it comes out in all its strength in many of his descendants among the July yearlings. The old long-horned Norfolk rams, whose narrow backs and sharp spines proved such a very uncomfortable seat for Mr. WEBB, when he used to ride them in his boyhood at West Wickham, and set him a-thinking in his maturer years, live only in story at Babraham now; and not one even is kept as a relic of the dark ages. The South-down flock at present consists of about 1,400, and about 1,000 lambs as well. Originally there were three tribes, but a fourth and fifth have been added; and Mr. WEBB never hires rams, as he can now always keep the blood sufficiently distinct without it. In number the tribes are nearly equal, and they have all produced prize sheep; and at present there are from 120 to 140 rams, for letting next month. The selection is made within fifteen days from lambing, and upwards of 200 ram lambs are retained each year. Besides the elaborate ear marks, and divers others on the shoulder and hip, they have cabalistic crosses of green above yellow, blue above red, and so on, on their sides, which tell their descent at a glance to their owner's eye; and furnish an unfailling clue, when they rise to ram hogget estate, and are ripe for entry in the Flock Book. All the fleeces are weighed, and if they do not come up to 7 lbs. the ewe hoggets are sold to go abroad. The Old Babraham shearlings nearly all averaged 8 lbs., and although the late mild winter and spring was not favorable to the growth of wool, the majority of the fleeces this year have touched it. The nature of the soil is, moreover, not peculiarly favorable to wool, as it is gravelly, and almost

fine enough for an hour-glass; and the sand rather prevents the grease from getting through the fleeces. Mr. WEBB never sells ewes in England; he has a few from twelve to thirteen years old, and he has bred from them at fourteen, but the rams are seldom let beyond their seventh season; and the heaviest of them have killed at 50 lbs. a quarter. The losses among the breeding ewes are calculated at about one in twenty; and as the difficulty of breeding is much enhanced by the want of grass, Mr. WEBB has had anything but a May-game of it, in bringing his flock to their present position. Two lots of yearling rams, making some forty in all, were in training for the final Warwick Royal Selection, on some seeds behind the house. They were principally by the prize old sheep and the first and second prize yearlings at Salisbury; and we found on inquiry, that the second prize old sheep has gone to America. Plenipo, who was a yearling in 1834, when his great chestnut namesake and neighbor was in his zenith, swelled the tide of South-down success for Mr. WEBB; and The Gentleman, Clumber, Liverpool, Shrewsbury, Derby, Young Elegance, Gloucester, The Captain, and Old Uncertain, &c., have never suffered it to ebb. There was Fancy Boy also, who was never let, and hung himself in early life in a fence; Perfection, the sire of The Captain, for whom Mr. LUGAR's offer of 150 guineas as a yearling was refused; Dictator, who elicited a like answer; and Windsor Castle, the conqueror of his half-brother at Windsor, who received the name of the Queen's Own, from her Majesty's expression of dissatisfaction at the verdict, though the royal prerogative was not potent to reverse it. Fifty yearlings for letting were busy on the yellow globe mangel in another paddock; and two renowned heroes, to-wit, Old Duke and Young Plenipo, were railed off in state at one end. The latter has the Babraham flock blood in him for ten generations on the dam's side; and Mr. WEBB valued him so highly, that, in spite of a 200 guinea offer, he kept him for two seasons, and let him last year for the first time. Old Duke is five years old, and has achieved 410 guineas at three lettings. In one of them Mr. HENRY OVERMAN bid 169 guineas; and the Duke of Richmond made it even money, and got him. The pasture behind the fold yard was full of Old Duke's descendants; and Young Captain, the flock patriarch of the Emperor of the French, who hired three last year, could also claim a hand in some of the ninety couples of glorious legs of mutton, which scampered off at our approach.

“It would have been strange indeed if we had not “drooped and turned aside” once more from the short-horns, to visit a flock of 300 ewes and lambs, before we proceeded on to the North farm. The dam of Young Norwich and Young Plenipo needed no pointing out, as the veriest tyro ought to have challenged her as “a mother of the Gracchi;” and there was also the dam of the 197 guinea ram by Young Elegance, with a ram lamb by a son of Young Plenipo at her side, which bids fair to be as good a South-down King in its turn.”

It is a shiftless trick to let cattle fodder themselves at the stack; they pull out and trample more than they eat. They eat till the edge of appetite is gone, and then daintily pick the choice parts; the residue, being coarse and refuse, they will not afterward touch.

**A WHEAT FARM BECOMING A FARM OF ALL WORK.**

WHEN it became a confirmed fact that the wheat farms in Western New York could no longer be depended upon for that especial crop, many land owners stood appalled, and the first impression at once gained ground that lands must very much depreciate in value. Now, it is as hard for a man to admit that he is growing poor, with the old number of acres on his hands, as it is for a woman to own that she is growing old.

The effect of this invasion of insect vandals among us was two fold: while it seemed to dishearten and even completely discourage some, pride stepped in to the rescue of others, making better farmers of them, and thus leading them not only to retain but to enhance the value of their farms by making them more profitable, and at the same time improving their condition by a salutary rotation of crops. I claim to belong to the latter class, and although my land, in the main, is pre-eminently adapted to wheat, I have entirely changed my plan, coming down from an annual seeding of 50 or 60 acres to from 12 to 20 acres of wheat. The basis of my present system is to let no land run to waste, but put something that will grow and yield a certain, though sometimes a moderate profit, upon every arable acre. I pretend to no extraordinary cultivation, and it is but to show the success of this variety in produce that I record the last year's result.

My farm includes about 270 acres, 240 of which are improved, with no extraordinary improvements in buildings, &c. At the full value put upon my land when wheat was in its glory, the capital invested in farm, stock and utensils, is \$25,000. I proceed to sum up the whole amount received on the investment, and will then charge the farm with seed, labor, and other outlays, pertaining to production. Let me premise that I raise my own team,—re-place with young animals the number sold annually as beef, pork, mutton, or cows. I feed all my corn and hay at home, and make my woodland pay its interest. My present purpose does not require me to give a detail of the crops per acre, or the quantity in the aggregate, but in round numbers the cash value of products.

Commencing the year with July, the following is the result:

Wheat.....	\$430 00
Rye.....	185 00
Barley.....	325 00
Oats.....	450 00
Early Potatoes.....	120 00
Late do.....	225 00
Pork.....	370 00
Beans.....	75 00
Clover Seed.....	55 00
Buckwheat.....	20 00
Beef.....	135 00
2 young Cows.....	80 00
Wool.....	253 00
Lambs.....	195 00
Dairy.....	150 00
Wood and Heading.....	50 00
Apples, no crop.....	
Indian Corn, 500 bushels.....	} none sold.
Hay, 65 tons.....	} none sold.
	\$3,153 00

It is proper to remark that I had about average luck in hitting the market at the right time for a price. I have kept my accounts with sufficient accuracy to know that \$1,100 will cover all expense, including tax, repairing tools, threshing, and labor

of all kinds pertaining to production. The balance will stand:

Amount of income.....	\$3,153 00
Expense of producing.....	1,100 00
	\$2,053 00

I am aware that the above variety of crops must be modified by circumstances, such as access to market, assortment of soil upon the same farm, &c., so that my statement only forms a general indication of what may be done upon a wheat farm.

To those who may be incited by what I call an accidental escape of the wheat crop this year, to throw in, hap-hazard, upon poorly prepared stubble or late plowed fallows, I would suggest that the certainty of fair profit, with a judicious variety, is preferable to poor wheat farming, or perhaps a tantalising growth of straw and no wheat for the granary.

J. B. SMITH, M. D.

Ogden, Monroe county, N. Y., August 5, 1859.

**STORING AND FEEDING TURNIPS.**

EDITORS GENESEE FARMER:—There is no small amount of difficulty in storing turnips safely. A little too much heat and they are lost. Four years ago I had 130 bushels in a long pit, sunk 18 inches deep; the man who covered them was told to put on 10 inches thick of earth, instead of which he put on 18 inches; a ventilating hole was left at the top; the snow fell deep, and added to the warmth, and the whole decayed.

My root house is built in a side hill. It is walled up with pine logs; poles are laid across from plate to plate, and it is filled in tightly with straw between them and the boarded roof. The earth is banked up the roof about two feet above the eaves. The front, where the entrance is, is of course out of the ground, and is double; that is, there is a space of five feet between the wall, and a tight board partition within.

This root house was filled to the roof, and it held 800 bushels. Fearing they would heat, the inner door was left open, when a sudden and unexpected fall of the temperature took place on the 25th of November, going as low as 4 deg. below zero. The turnips at the exposed end of the building froze partially, but were quite good for use; the main bulk kept well and were sweet and fresh in the spring, and some lasted till June. The root house is so constructed that at the end, level with the top of the bank, there is a trap door, into which the turnips are thrown from a tilt cart, so that there is no handling in the unloading.

The turnips should be trimmed of roots, as well as the tops, as they are more liable to heat if stored with the roots on, on account of the earth which then adheres to them. I lost some bushels, and, had I not discovered the mischief in time, should have lost more one season from this cause.

My root house was constructed in haste, of materials which were on the spot, otherwise I should prefer one of stone, with a roof of stout poles and earth well turfed.

FEEDING.—On this head I might content myself with saying that all the animals I have live in part upon them, but it may perhaps be useful to go more into detail.

1st. My horses for three winters past have had very little grain until toward spring. Each has

two large turnips, whole, but clean, night and morning, unless doing heavy work, when they have a feed of oats in the morning instead of the turnips. They are very fat and full of life.

2d. My calves and lambs get turnips sliced with a machine twice a day, about half a gallon to each, and some hay. My sheep get them in the same way (once a day this winter.) with pea or oat straw only, until March, when I begin to give them hay.

3d. The young stock, one and two-year olds, get turnips once a day, sliced as above, and straw until near spring, when they get hay; and they are in good growing condition—many farmers would say *fat*—all through the season.

I have raised mangel wurzel for my milk cows, as the turnips give the butter a strong flavor, especially during the first half of the winter, after which I have found them less objectionable on this account. A bushel a day between three cows has been my allowance. If you want good beef, shut up a lean ox, give him three bushels a day of turnips and a little hay or cut oat straw for ten weeks, and then, for the last fortnight of his life, a gallon of barley or corn meal a day, sprinkled over his turnips, and if there is any disposition about him to fatten you will get as tender and juicy meat as any one can desire.

JOHN MACKELCAN, M. D.

Ancaster, C. W., 1859.

#### CUTTING GRASS BY MACHINERY.

EDITORS GENESSEE FARMER:—In the July number of the *Farmer* we find a second article from the pen of Mr. BUNDY, which rather calls for a reply.

In the January number of the *Farmer* for 1858, may be found an article on the "Advantages of Cutting Grass and Grain by Machinery," written by us, and to which the gentleman made such an absurd reply that we thought it unworthy of an answer; and especially after JOHN JOHNSTON gave him such a "dab." But as he thinks he has either convinced us of our error or frightened us away, we will write again upon the subject, that our belief is more firmly established than ever of the utility of machinery in the harvest field.

Mr. BUNDY commences his last article thus: "During the season of 1858, I improved an opportunity, in reply to Mr. STREET, of Ohio, and several others in different sections of the country, to show the impropriety of the general introduction of mowing machines in the State of New York, as the means of saving either labor or money to the farmer." Now we would inform the gentleman that he is entirely off the question. We know but little about the "*State of New York*," but wrote of the *advantages of harvesting by machinery*, and we challenge the gentleman to prove that this modern method has *not* great advantages over the scythe, cradle, and hand-rake. We thought upon reading his article in the April number of 1858, that he was entirely ignorant upon the subject, and knew nothing about the mower and horse-rake; and are yet of that opinion, or he could not advocate the old system so strongly.

Last season we cut a piece of very heavy clover and timothy—at least two tons per acre—at the rate of an acre per hour, and it was no harder for the team than plowing stubble.

We have just had nine acres cut by a machine

of the same pattern, (the Buckeye Mower) in nine hours, and cut as well as a man with a scythe could have done it. The first piece we cut with our own team; the last was done by an itinerant mower, who makes it a business to cut grass for others at 62½ cents per acre. The same machines have a reaper attachment, and yesterday two of our neighbors cut ten acres of wheat with one of them, better than the best of cradles could have done it.

The same farmers have about an hundred acres of meadow to mow, and keep six or eight horses on their farms; and any one acquainted with the operations of harvest machinery must see at once that to such farmers it is of the greatest advantage.

Mr. BUNDY says that in his locality "three average hands will in one day cut down with their scythes, make, get up, and put into the barn, three acres of good grass with much ease." "And instances are common where extra driving hands do about double that amount in a single day." Now, *if this is true*, the grass he calls "good," we would call in Ohio, *good for nothing*. It must stand so thinly on the ground as not to be worth cutting, and must be so dead ripe as to be no better than *sticks* for stock, or else he expects it all to spoil in the barn. In a field of what we call "good grass," we will let off the best Chenango county mower if he will cut with a scythe from an acre to an acre and a half per day. We cut our clover when about half the heads are ripe, and our timothy when the blossom is ready to fall; and if the weather is good it will do to haul in on the following day. Some of it may do before that time, but we can find better employment for our hands in raking and "cocking up," and never object to one night's exposure in this form.

If farmer BUNDY was my neighbor, we would argue the subject with much greater freedom; for he makes such (to me) extravagant assertions that we must conclude we know nothing about Chenango county meadows. He attempts to ridicule Mr. NICHOLS, the Michigan "boy," and ourself. This we consider too little to deserve our notice. Let him come out in manly argument, or we shall not answer him, as we are not willing to be sarcastic and impolite to a stranger, or any one else, when we can avoid it; but certainly this cowardly barking is used only because he can say nothing else, and we would, if possible, convince him that *reason* only, and *not blind assertions* nor ungentlemanly ridicule, will decide the matter truthfully.

We do not presume to say that every farmer can make a mower *pay*, but we do claim for it many advantages. Where clover is very heavy and lodged, it will cut it better than it is possible for a scythe to do it; and every farmer who has ten acres of heavy clover to cut annually, should have one, if *he can spare the capital*, and can not get it cut by an itinerant mower. Hands with a scythe charge seventy cents per acre for mowing—we have to board them: it takes one ten times as long to do it; the hay has to be spread and perhaps turned, for a mower does it better than a pitchfork. There is another important consideration to us; perhaps not to Mr. BUNDY. We consider eight or ten harvest hands, week after week, a great imposition on the female part of the household, *if by a slight expense it can be avoided*. Sometimes it seems necessary, and then they will do it cheerfully; but



the welfare of a wife, who is cared for as carefully as she should be, is far more than money to every true man.

But let me not forget to add that a *poor* mower is a great humbug. We had a neighbor who had one he never used but one season, and then it nearly killed his horses. We have seen several of the Buckeye Mowers performing, which worked admirably, both as a mower and reaper. Nineteen hundred of them have been manufactured and sold at Salem and Canton during the present season, which shows that all farmers are not like Mr. BUNDY.

DAVID STREET.

*Salem, Columbiana Co., Ohio.*

#### MOWING MACHINES—ONCE MORE.

EDITORS GENESEE FARMER:—I would like to furnish about a "stick full" of matter for your columns, in answer to the bombastic article in the July number, written by Mr. E. A. BUNDY. As Mr. B. has not touched upon the question at issue, viz: "the economy of using mowing machines", I will give him a few more facts.

1st. It is *not* usual for good farmers to winter their machines in the fields—*only such as can not see the economy of using mowing machines do this.*

2d. We do not pay \$125 for our machines. KETCHUM'S mowers cost \$110, and being all iron would not rot; even if Mr. B.'s plan, of sticking a stake by the side of it in order to find it in the spring, were followed. Good machines, of all kinds, can be got at prices ranging from \$75 to \$130.

3d. It is almost impossible here to get men enough to get in the hay, after it is cut. Wages are high, and help is scarce. As to helping poor men by furnishing them work, it is well enough; but if Mr. B. himself would not get his hay in the *best and cheapest* manner, then he is a singular specimen of humanity.

I now give him the rest of that "alphabet"!

*Westfield, N. Y., July 4th, 1859.* DE AZRO A. NICHOLS.

WEEDS IN THE GARDEN.—On page 240 of the last *Genesee Farmer*, in speaking of weeds, I think their benefit is not all told. I think from experience that if they are all carried out of a garden, and none left to be worked into the ground, that the garden will cease to bear weeds or anything else to any benefit, notwithstanding it should be manured every year. I believe my father ruined one so when I was a boy, and worked for him. We both practiced carrying all weeds out, and manuring every year, and I can not give any other reason for the failure. I now love to have weeds grow in my garden, but I love as well to pull, or hoe them up, before they overrun what I want to raise.—W., *Hornellsville, N. Y.*

THE following method to destroy weeds is pursued at the mint in Paris, with good effect: 10 gallons water, 20 lbs. quicklime, and 2 lbs. flowers of sulphur, are to be boiled in an iron vessel; after settling, the clear part is thrown off and used when needed. Care must be taken; for if it will destroy weeds, it will just as certainly destroy edgings and border flowers, if sprinkled on them. Weeds thus treated will disappear for several years.

#### PLASTER FOR GENERAL CROPS.

EDITORS GENESEE FARMER:—In reply to the inquiry of W. H. PARKER, of Farmington, Oakland county, Michigan, I will give my experience for several years past in relation to plaster or gypsum. I have found it to have a good effect on almost all kinds of vegetables, except beans, peas, and onions, as it makes them grow too much stalk or tops. For wheat, clover, buckwheat, corn, and potatoes, if put on as soon as the tops can be seen, plaster has increased the crop one-tenth, as it promotes the growth of the roots and of course brings forward the tops. I have never found much benefit from putting it on when corn begins to tassel, or potatoes begin to blossom. I put it on wheat when sown, or early in spring. Clover the same. Buckwheat when sown. I have put it on in one field, the one half when the buckwheat was sown and the other half when the field when it began to blossom, and the result was nearly double the number of bushels from the early plastering. The same result on potatoes last year, and this year the effect was greater on my early June potatoes.

Our plaster costs here \$6.50 per ton; and it is generally considered by the farmers that it pays well, as clover does not do well without being sown with it. The farmers in the valley of Wyoming have generally sold off all their straw, hay, and corn stalks, and the consequence is that for some years the crops have been poor. But there is now a great improvement in our crops. Some of the farmers begin to keep more stock, and use plaster and lime.

Z. KNAPP.

*Luzerne county, Pa., August 7th, 1859.*

#### RYE FOR AUTUMN FEED.

EDITORS GENESEE FARMER:—Rye is not so generally valued by our farmers as it ought to be. Were the stubble fields plowed after harvest, and sown with a bushel or two of rye per acre, the stock on the farm would have an abundant supply of sweet, succulent pasturage in autumn. It grows rapidly and fillers out, and becomes thicker as it is eaten down. It is said, however, to give a rank flavor to the butter made from the milk of cows fed on it, but this is believed to the case only when they are allowed to surfeit themselves on it. Some farmers would object: that the rye would take possession of the land, and grow up the next season. But that is easily remedied by plowing it under, either late in the fall or in the spring, and the land will then be cleaner, and in better condition, than if it had been allowed to run to weeds.—F. W., *Charlottesville, C. W.*

REMARKS.—It was formerly a very common practice in England to sow rye, in the way recommended by our correspondent, for the use of ewes and lambs in the spring. A considerable quantity of succulent food was thus obtained early in the spring, to the manifest advantage of the ewes and lambs. But though the rye was eaten on the land by the sheep, and the droppings turned under, and the land afterward sown to barley, it was found that the rye impoverished the soil, and the practice has on this account been abandoned by many good farmers.

EDS.

### THE INCREASING NECESSITY FOR MAKING FARMING A SCIENCE.

No intelligent and observing farmer, as he sees each year bringing with it some new and deadly enemy to his crops, can avoid asking, "What shall the end of these things be?" Every spring he plows his ground in hope, scatters in the seed with a liberal hand, watches and tills with care, and is doomed at last to disappointment by seeing the devouring insects or other foes sweep over the fair grain, rendering it a chaffy waste. Forty years ago, our ancestors had no trouble in raising an abundant crop of wheat, aside from properly preparing the soil, sowing, harrowing, reaping, garnering, &c. They got in the seed in due time; and after that their thoughts were troubled by no fears of frost, rust, or weevil; while we often sow in fear, and reap emptiness.

The population of the world is increasing steadily with the years; while if the capability of production does not increase in the same ratio, we shall evidently come to want. It is said that our vast country, its skillfully tilled, is capable of supporting 500,000,000 of human beings; but it is plain that it could not be done by the present system of tillage. And yet, we may confidently believe that this immense number will one day inhabit our land; and if so, what shall they eat? In Belgium, the most densely peopled country on the globe, 538 persons occupy, and are fed from, one square mile; and yet it is well known that the soil of that country is by no means the most fertile in Europe. Our country is naturally far richer. Still, even at this early date, we see immense tracts in Virginia deserted entirely, and thrown open as commons, on the plea that they are so poor that a "living can not be made on them," though without doubt they were once fertile and remunerative. Ount on such farming! Unhappily, this method of cultivation and its inevitable results are too common in this "fast" age and country. Most of the European States, so far behind us in other respects, and which we so haughtily and often unjustly taunt, are vastly our superiors in this particular.

Again; the ever-increasing variety and number of insect enemies which annually infest and destroy the crops, imperatively demand new preventives—new means of defense and preservation against them. As the country is cleared up, and civilization advances, the various grains and vegetables, like the human body, are wasted by new and fiercer enemies. Wheat, our great staple product and one of the constituents of human existence, lives a precarious life, and withers before the attacks of puny, contemptible bugs. Corn, the pioneer cereal of America, is cut down in the green and vigorous youth of its short life by the unsightly worm, and poor man is left with little hope and less bread. What shall be done? Shall we still continue to plow and sow and *not* reap, as did our fathers? Plainly, we can not.

Then the only thing to be done after there remains no more land to be settled, (which must, most assuredly, be the state of affairs at some future day,) and the population is still increasing, is to *farm better*. Land speculation must be abolished, and men must be content to own no more land than they can thoroughly and profitably till. And not only that, the principles of good farming

must be more studied. In fact, farmers must no longer work with the hands only, but with the head also. It must no longer be spoken of contemptibly as "Farming," but as "Geoponics."—Agricultural Colleges must be founded and supported, in which farmers' sons can be taught the science of their art as thoroughly as lawyers are in theirs. Europe supports 400 of these schools; the United States but two. The effects are readily seen in their respective systems of agriculture, and the extent of their population. Much must be allowed for the youth of our country; still, much is needed. S. POWERS.

Waterford, Ohio, July, 1859.

### OUR CREED.

We believe in small farms and thorough cultivation.

We believe that soil loves to eat, as well as its owner, and ought, therefore, to be manured.

We believe in large crops which leave the land better than they found it—making both the farmer and the farm rich at once.

We believe in going to the bottom of things, and, therefore, in deep plowing, and enough of it. All the better if with a subsoil plow.

We believe that every farm should own a good farmer.

We believe that the best fertilizer of any soil, is a spirit of industry, enterprise, and intelligence—without this, lime and gypsum, bones and green manure, marl and guano will be of little use.

We believe in good fences, good barns, good farm-houses, good stock, good orchards, and children enough to gather the fruit.

We believe in a clean kitchen, a neat wife in it, a spinning-piano, a clean cupboard, a clean dairy, and a clean conscience.

We firmly disbelieve in farmers that will not improve; in farms that grow poorer every year; in starveling cattle; in farmers' boys turning into clerks and merchants; in farmers' daughters unwilling to work, and in all farmers ashamed of their vocation, or who drink whisky till honest people are ashamed of them.—*H. W. Beecher.*

A POPULAR LUXURY IN CHINA.—Two things struck me in China: the universal smell of musk in the kingdom of flowers, and enormous consumption of melon-pips, which are what nuts and oranges are to you English, and what olives and prunes are to us Gauls. The scarlet and yellow melons are in some places only grown for the seed, and are piled up by the side of the road for the use of any traveler who will scoop out the seed for the proprietor. On the rivers I have seen, and so I dare say has Mr. Huc, whole junks laden with these seeds. In the loneliest place you can procure them, when all other food is scarce. The three hundred millions of Chinese all eat them. When friends meet to drink tea or rice wine, there is always an accompaniment of melon seeds. They are piled up on every dinner table. They are eaten while traveling in the palanquin; they are picked at while discussing bargains. If a workman has a few sapecks, he does just what his child would do—buys melon seeds. They are an amusement and a food, as the cigarette is to the Spaniard, and the betel-nut to the Hindoo.—"*Kingdom of Flowers.*"

## SCIENTIFIC AND PRACTICAL AGRICULTURE.

MANY worthy cultivators of the field are disposed to look with comparative indifference upon the teaching of science in relation to their vocation. An expression, to which the press gave publicity not long since—"Away with your scientific farming, and give us experiments and facts"—is doubtless the sentiment of many unread agriculturists.

It may be that *scientific farming* has sometimes been brought into disparagement by the failure of men of science in their attempts to *practice the art* of agriculture. It is true that such failures may frequently be observed; and it is equally true that the most successful farmers of this, or any other country, are both scientific and practical agriculturists. In those cases where scientific men fail of success, I think the cause may generally be found in a lack of *practical training*. It is not the *science* but the *art* that is at fault. However sound and correct the theory and principles of the scientific farmer may be, the mere scientific man fails for want of the practical art. LIEBIG would have made a poor plowman; yet the world have listened to his instructions with attention and profit. It is the business of the man of science to investigate, analyze, scrutinize, and instruct. The practical man should avail himself of the advantages of these scientific and analytical investigations and instructions. The chemist informs the tanner what substances contain the most tannin, and explains the detail of the principles and process of changing green hides into pliant leather. Yet this same chemist, who imparts the requisite and proper instruction on this subject, if transferred from the laboratory into the tan-yard, to perform the duties of the tanner and currier, might possibly produce a very unsaleable specimen of leather. A musician, who has acquired a wide-spread fame as an instructor, performer, composer, and publisher, said, in our hearing once, while instructing a class in thorough-bass, that one of the most successful and efficient teachers within the circle of his acquaintance could not play a tune himself, on the piano or organ; he had never acquired the *art*, though a successful *teacher* of the *science* of music. Indeed, all who have the most cursory knowledge of music as a *science* and an *art*, know that they are separate and very different acquirements. The science of music might be studied for a life time, and instructions given correctly—the whole theory acquired as a science—without any ability practically to perform.

In all the various arts of civilization, this division of labor is generally recognized and adopted. If in agricultural pursuits less than in other callings, it is because these pursuits are less favorable to speculative states of mind than the vocation of some others. The manufacturer has pressed the science of chemistry into his service, with notable advantage and positive success; while the cultivator of the ground, who may derive much more advantage from the science of chemistry, too often contents himself in pursuing his own haphazard labors, undirected by the light of science: or perchance, while following in the wake of others who are directed by the light of science, are occasionally heard making light of *book farming*.

For some of the greatest advantages of this wonderful age, we are indebted to scientific discovery;

and for more and greater discovery, we simply want more cultivated brains. The stores and resources of nature are boundless as infinity. When the principles of agricultural science become more generally developed, why may we not obtain twenty fold greater productions from the billions of atoms that float in the air or lie deposited in the earth, impregnated with *farina* and *gluten*—medicated for the stomach, flavored for the taste, and beautified for the eye?

To imagine that there is no better mode of procedure than to follow in the footsteps of our great grandfathers, would be as if the son of Erin who started from the Atlantic slope for California, on foot and alone, with all his goods, and the requisite implements for gold-digging, trundling along on his wheel-barrow, should say there were no better mode of traveling than his, while the earth-vibrating locomotive at his heels shakes the untruthful assertion from his lips.

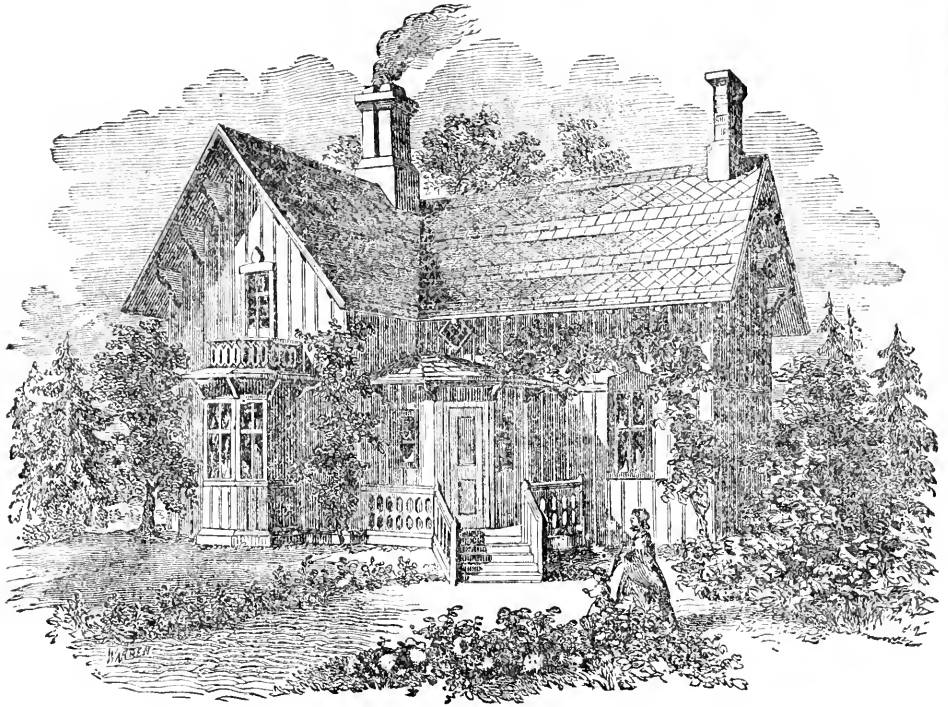
It is only about forty years since a rude sort of steam engine was constructed, to run on wooden rail, at Wylam, England; but it was voted a "perfect plague." About ten years afterward, (Sept. 15, 1830,) GEORGE STEPHENSON started "*Puffing Billy*," at the rate of thirty miles per hour, on the railroad between Liverpool and Manchester, which he had to have surveyed and laid out in the night, to avoid the ridicule of the people.

The lightnings, which once flashed only to terrify, by scientific discovery are now made to execute beautiful embellishments in the shop of the artizan; or, tamed and housed up, are employed to carry our news across the continent.

Such men as FRANKLIN, WATT, FULTON, or MORSE, with great thoughts glowing up like sunrise in the soul, have accomplished more for the benefit of the race than if they had labored with their hands for a thousand or even a million of years. And yet it is true, while some men labor with their head, others must labor with their hands. *Science* and *art* must go hand in hand, in agricultural pursuits as well as in other vocations. Let each department be properly understood, and there may be an end to sneers at *book farming*, and the proverbial tardiness of practical agriculturists in availing themselves of the advantages of chemical discoveries and scientific farming generally, as brought before them in such scientific journals as the *Genesee Farmer*. One useful discovery therein revealed might easily be worth the subscription price of such a journal for a life time; and how much more profitable to spend their long winter evenings pondering its pages, than to be assembled with the company in the village post-office or bar-room, laying pipe for the election of constables or presidents.

J. A.

CUTTING GRASS FOR HAY.—The time of cutting grass for hay is still a mooted question. If those that consume it have any power to judge, that which is early cut is the best. I think we are apt to cure our hay too much; that is, dry it in the sun. The best manner in which hay can be cured is, after it has wilted, to "make" it "under cover." But as such a method is not practicable only in very small quantities, probably the better way is to cure it in the cock by sweating and opening for it to receive the air but not the sun.—G. E. B. *Beljust, Me.*

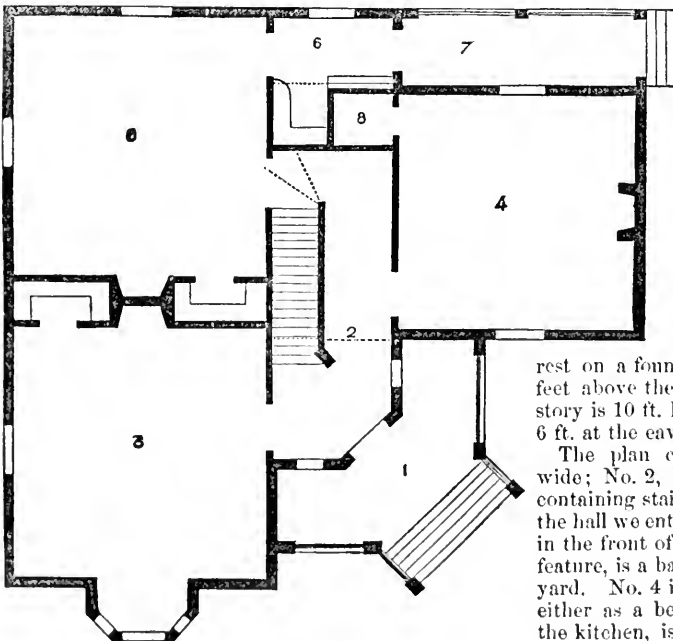


DESIGN FOR A SUBURBAN COTTAGE.

## DESIGN FOR A SUBURBAN COTTAGE.

We present the readers of the *Genesee Farmer* with another of the chaste, simple, and yet very beautiful designs by Mr. G. E. HARNEY, of Lynn,

Mass. Those already given have been favorably received, and we are confident that this one will afford valuable suggestions that will be made practical by many individuals.



GROUND PLAN.

The sketches which we now offer comprise a design and plan for a cottage suitable for a suburban or village lot. Though the exterior is somewhat ornamental in its character, there is nothing about it costly or difficult of execution—no detail which cannot easily be wrought by any ordinary house carpenter. It is designed to be of wood, and covered in the usual vertical and batted manner. The roof projects two feet and a half, and is supported on brackets. The house should

rest on a foundation projecting at least three feet above the level of the ground. The first story is 10 ft. high in the clear, and the second 6 ft. at the eaves and 10 ft. high at the ceiling.

The plan comprises—No. 1, gallery, 5 ft. wide; No. 2, hall, 7½ ft. wide and 20 ft. long, containing stairs to chamber and cellar. From the hall we enter No. 3, the parlor, 16 ft. square, in the front of which, and forming its principal feature, is a bay window overlooking the front yard. No. 4 is 15 ft. square, and may be used either as a bed-room or living-room. No. 5, the kitchen, is 15 ft. by 16; it contains a large closet, and connects with a pantry, No. 6, which

pens upon a gallery, No. 7, leading to the yard. Under this gallery is the outside entrance to the ascent.

The second floor contains four chambers, each furnished with a large clothes-press. Two of these chambers are lighted by dormer windows.

Cost—about \$1,600 near Boston.

### THE AMERICAN FARMER.

Not all men who cultivate the earth are farmers; not all farmers are American farmers. The American farmer brings to that avocation the highest advantages of science and skill, of virtue and industry, owning the soil which he cultivates, and honoring his labors by the spirit of an American citizen. There is a tendency to undervalue this sphere of life. The pride which professional and commercial prosperity generates, hesitates to acknowledge the farmer as a social equal; and even farmers' sons have caught the infection, and joined in the clamor of depreciation. Men are ready enough to be lawyers or physicians,—these are honorable professions;—ready enough to sell tape by the yard, or pins by the dozen,—even this is honorable. But to breathe the air of newly-turned earth, to feel its touch, to hear the rustling of growing crops, to drive loaded wains to market, to exchange heavy golden grains for grains of heavy gold, to live amid scenes of natural beauty, amid conditions of physical health, God's *truest, noblest* freemen,—this is *dishonor*. Let us see.

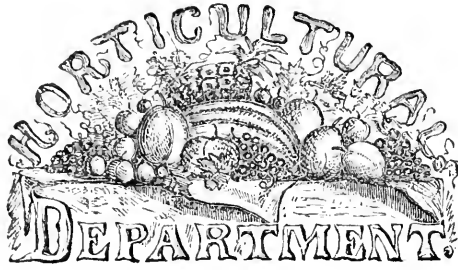
Of lawyers, few rise to eminence, or even liberal success. Physicians succeed a little better; while mercantile pursuits are well nigh a lottery. The best symbol of successful merchants is found in the adage of angels' visits. How different from the precarious prospects of these are the prospects of an intelligent, skillful, industrious, and virtuous American farmer. Such a man, cultivating his own soil, and engaging in no outside speculation, never fails. He never fears that poverty will come upon him so long as God fructifies the earth with the dew, the rain, and the sunshine. To him, success is as universal and as certain as the fulfilment of the divine promise which assures the seed time and the harvest. The pursuits of such a man lie in conscious proximity to Providence; and he stands, because he leans directly upon God. Compare, then, his free and healthful life with the constrained and unnatural conditions under which professional men and merchants live. These you find, it may be, shut up by day in great piles of brick, or threading their way through narrow streets, where the sun pours down his rays unmitigated by a single refreshing breeze; and by night shut up again in similar walls, changing the place but keeping the pain, waked in the morning to the eternal discord of rumbling carts, of milkmen's bells, of cries of chimney sweeps, and barking of uncounted dogs. Is this *life*? Do men *live* amid such scenes, or do they only abide, constrained by some necessity of fate, or punished for their sins? Even the birds shun the city as they would a prison. All the powers of man are enervated and hurried to decay. With such a scene, contrast the quiet of woodlands, pastures, and meadows, delighting the eye with their beauty,—the balmy airs which send vigor through every fibre of man's structure, and make

him strong to serve God and his fellow men. With toils and anxieties forgotten, with windows broad open, making his chamber as wide as the universe, the farmer sleeps soundly and sweetly as an infant, waking in the morning to the music of birds, and bounding to his task with a physical regeneration. *This is life!* How true it is that "God made the country, man made the town." Such comparisons might be indefinitely pursued, and with similar results. It is enough to say that no man's condition is more favorable to culture than the farmer's, and that his opportunities of social influence are sufficient to satisfy a true ambition. Science brings its aid to his labors, and so perpetually beckons him to inquiries in her departments. To him every evening is free, and during the winter he may devote himself almost exclusively to intellectual pursuits. Men of genius have often found their inspiration in cultivated fields. The scenes which surround him are the very homes of studies in botany and geology. Nor are these scenes less favorable to aesthetic culture.

The charms of country life are of almost infinite variety. Fruits more delicious than ever grew in the garden of Pomona; flowers that would grace a Paradise; herds of cattle such as Jupiter never saw in a hecatomb; horses as noble as ever contested in the Olympic hippodromes;—all these and much more strengthen and develop the best qualities of his mind and heart. To stimulate the agricultural zeal of his neighbors by illustrations of his own; to promote intelligence by the liberal support of schools; to contribute by his example and influence to the improvement of roads, bridges, and public buildings; to nourish and sustain the institutions of religion; to aid the progress of public morals; to instruct and elevate his dependents; to add in this way to the qualities of a good farmer the higher and more comprehensive qualities of a christian man;—this constitutes a life which has in it far more of the elements of a true nobility than are often found amid the emblazonry of rank and the splendid ceremonies of courts. Such is the true life of the American farmer. If there be demanded an example which will forever command the veneration of the world, we turn to one who formed amid the peaceful scenes of husbandry the great character which drew to him a nation's confidence, which made him the repository of a nation's destiny, and who, when he had fulfilled that mission, returned to those scenes again, uncorrupted by ambition, and desirous only to renew the cares and duties of a farmer, in the seclusion and happiness of his own Mount Vernon. A. B. RATHBUN.

Oakfield, Genesee County, N. Y.

THERE are many who suppose it necessary to leave the second growth of grass undisturbed, to rot on the ground, in order to preserve the fertility of old meadows in grass where top-dressing with manure is not resorted to. But such management is oftentimes extremely hurtful, and the injury is proportioned to the amount left untrodden and unfed. If the amount left standing, or laying loose upon the surface, be considerable, it makes a harbor for mice, which will, under cover of the old grass, intersect the surface of the land with paths innumerable, from which they cut all the grass that comes in their way.—H. W. Beecher.



### SUMMER PEARS.

NEAR the large cities and villages, nothing that can be marketed at this season of the year will prove more remunerative to the fruit culturist than a crop of summer pears. The perfect adaptability of this fruit to the climate and soil of this country, has been thoroughly decided in the mind of every man who has taken the first step in the investigation of the subject. That there have been many failures in growing pears, there is not the least doubt; but we would ask with what fruits have there not been failures? And we might even ask the question, with what staple farm crops have there not been partial and total failures, which at the time seemed to forebode their utter extinction? Could we collect together the facts in relation to the millions of apple trees that are planted in this country every year, they would tell a tale which would astonish all fruit growers. Many intelligent and observing men, whose opinions we have obtained, and who are in situations enabling them to judge with much accuracy in this matter, do not hesitate to say that one-half of all the apple trees that are planted in the country are dead at the end of the second year after planting, and a large proportion of the remainder fail after this time. And yet no one doubts that the apple tree is suited to our country. These failures have occurred so often that it is taken as a matter of course. When the orchard is once planted, it is expected that a new stock of trees is to be purchased every year to fill in where the dead ones are removed, until the whole number is complete, which is often several years. The cause or causes of these failures, in the majority of cases, the planter does not fail to attribute, at least mentally, to his own ignorance or carelessness, however much he may try to throw it back upon other parties, in order to excuse himself; but to say that the climate or soil is at fault, is seldom attempted, as perhaps the very next farm may have upon it a flourishing orchard.

The pear tree being more difficult to propagate, has never been disseminated by nurserymen to the

extent that the apple has been—the well known law of demand being proportionate to supply, holding true in this case as in others. Of course this state of things has reacted again upon nurserymen, and the result has been a limited supply and a limited demand. The above named cause, with the other obvious one that the pear is more especially a dessert fruit than the apple, and can not in cooking be used in so many various ways, is sufficient to account for the comparatively small proportion of pear trees growing in the country, without inventing so unfounded a theory as unsuitable soil or climate.

It is not intended to be understood that either the soil or the climate of this country, or any part of it, is faultless, or that much may not be done to ameliorate them; but that in themselves they are not sufficient cause why more attention is not paid to the cultivation of the pear. The facts are, now more attention is being directed to the cultivation of this fruit, that the trees are found to do well wherever the apple succeeds; and, as a general rule, they come into bearing from two to five years sooner than the apple. We refer, of course, to trees worked on the pear stock; on the quince stock, it is now well understood that they commence to fruit the second or third year from planting. If the often quoted words, "he that plants pears, plants for his heirs," were even true, when applied to the fruit growers in any of the European countries, they should be used where they properly apply, and not here, where the pear proves to be one of the earliest bearing fruit trees.

But we are digressing from our design, which, first, was to introduce to the notice of our readers a few of the best summer pears, which, another season, have proved to be most worthy of cultivation.

The *Madeleine* was the first ripe pear we saw this summer, being in eating on and after the 25th of July. It is of medium size, obscure pyriform; color, light green, sometimes with a faint cheek in the sun, and patches of russet about the base of the stem. Stem from one and one-half to two inches in length, slender, and inserted on the side of the projecting summit, or, in some specimens, in a slight cavity. Basin shallow and ribbed. Calyx open or spreading. The flesh is melting and very juicy, with a slight acid, making it cooling and constituting it one of the most desirable sorts at this hot season.

*Doyenné d'Été* ripens about the same time as *Madeleine*. Medium size, obovate, slightly pyriform; bright straw color, with a rich dark crimson

week, interspersed with small yellow dots. Stem an inch and a quarter in length, rather stout and fleshy at the base. Basin shallow, and slightly rounded. Calyx small. This is a most beautiful apple fruit; flesh melting, juicy, sweet, not quite so richly flavored as the *Madeleine*. Tree bears quite abundantly. The beauty of this variety, with its other valuable qualities, will render it a general favorite both with orchardists and amateur cultivators.

*Beurré Giffard* ripens a few days after the preceding. Size medium. Skin greenish, with a slight blush. Flesh tender, melting, juicy, with a very agreeable excellent flavor. The tree is rather a slow and straggling grower. A very valuable early variety.

*Osbund's Summer*—Small; oval or obovate; clear light yellow; well colored in the sun. Stem one inch long. Calyx large and open. Basin quite shallow and smooth, or very slightly plaited. Flesh melting, juicy, sugary, with a mild but agreeable flavor. Ripened this season from the fifth to the tenth of August.

*Bloodgood*—Size medium; yellow, blotched and spotted with russet. Stalks an inch and a half long. Basin very shallow. Flesh yellowish—white, melting, with a rich aromatic flavor.

In addition to the above, we would mention as valuable summer sorts, but which have not yet been named, the *Bartlett*, of world-wide reputation; the *Brandywine* and *Tyson*, both natives of Pennsylvania; the *Rostiezer*, *Summer Francreal*, *Dearborn's Seedling*, a native of Roxbury, Massachusetts, and the *Ott*. In this list of varieties, the following do well on the pear or as dwarfs on the quince stocks: *Madeleine*, *Doyenné d'Été*, *Osbund's Summer*, *Bloodgood*, *Brandywine*, *Tyson*, *Rostiezer*, *Summer Francreal*, *Bartlett*, *Beurré Giffard*, and *Ott*, should always be worked on the pear stock, or double-worked, if on the quince. The *Bartlett* especially has the fault of forming so imperfect a union with the quince stock as to render it liable to being blown off after it has become a good sized tree, and is heavily laden with fruit.

**DRAINAGE FOR ORCHARDS.**—D. A. LILLIER, of Geneva, Illinois, makes the following statement to the *Prairie Farmer*: "I am acquainted with an orchard of grafted fruit, fifteen or twenty years old, situated upon a dry, rolling prairie, with a clay subsoil, that a railroad passes through making a ditch at ten or fifteen feet deep. Now, mark the significant fact. The trees upon each side of the road, within ten or twelve feet of the bank, bore fully the first season, while the rest of the orchard had only one and then an apple. The rows of different kinds cross the railroad instead of running parallel with it, so several kinds bore."

### GIVE AWAY YOUR FRUIT.

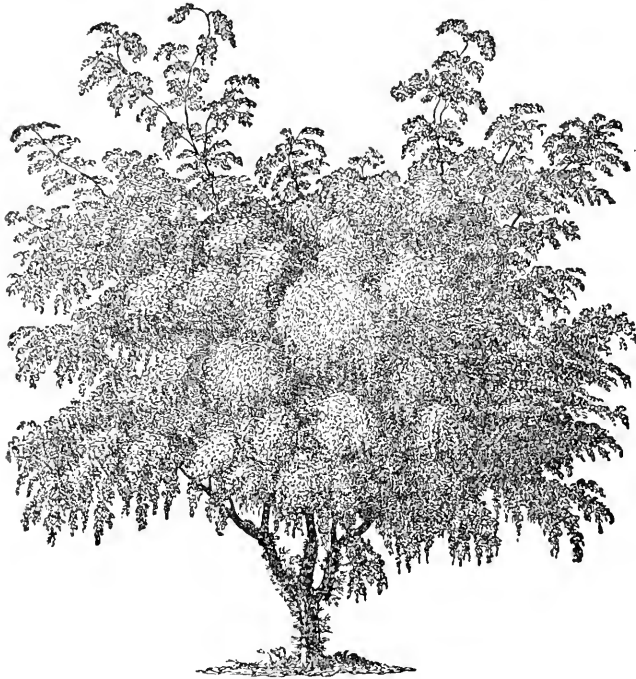
THE editor of the *Homestead* thus discourses, in a genial way, on the advantages of giving away fine fruit, than which few things one can do give more exquisite pleasure both to giver and receiver:

"One of the best uses you can put a fine dish of fruit to, is to give it away to some friend who will appreciate it, and your skill in growing it. It is due to the art of horticulture, as well as to yourself, to make these offerings. In no way can the taste for fine fruits, and the desire to cultivate them, be so rapidly disseminated. The rich old hunker over the way, who has all his life-time been too intent upon dollars to think of a fruit yard, or a vinery, will perhaps fall into a fit of self-reproach, at the sight of a four pound bunch of Black Hamburgs, presented to his wife. She of course praises the grapes, admires the half-transparent skin revealing the rich juices beneath, but does not venture to make any suggestions, though her looks insinuate volumes. The daughter JULIA is in raptures with them, as girlhood is wont to be with everything beautiful. She wonders that papa does not build a glass house to grow grapes in, and can not keep the wonder to herself. The daughter is the old gentleman's special weakness, as the mother well knows, and she can safely be left to do the talking. He never said no to her, and doubts his ability to, when her heart is really set upon an object. What is five hundred or a thousand dollars to a man of fortune, where the reasonable gratification of his family is concerned? The architect will be called in, and the glass house will be built, in due time. We trust our good friends with the large vineries will comprehend at a glance this philosophy, and fulfill their mission."

**STRAWBERRIES ON GRAVEL BEDS.**—A correspondent of the *New England Farmer* says he was induced to try the growing of strawberries on coarse gravel and stones, from the productiveness of some which had accidentally thrown runners on a gravel walk. He says: "I am satisfied that if any gardener has such an amount of pebble stones that he hardly knows how to dispose of them, he may, by a moderate intermixture of rich earth, form them into productive strawberry beds." The plants will propagate by runners, whose roots will get into the earth among obstacles that impede the growth of grass and weeds, and the berries will ripen a week earlier than usual.

**STRAWBERRIES IN HAWAIIAN ISLANDS.**—The *Pacific Commercial Advertiser*, of May 12th, says: "During the past week this delicious fruit has been quite plenty about town, though mostly secured in advance by private families. Mr. HOLESTEIN, of the Agricultural Society's Garden, has about an acre of plants in full bearing. The fruit is large and well flavored, and brings readily seventy-five cents per quart."





HONEY LOCUST—GLEDITSCHIA HORRIDA NANA.

### THE HONEY LOCUST.

A TRIBE of trees, so named from the sweetness of their sap, some of the species of which are found in the United States growing wild on the fertile alluvial bottoms bordering the rivers at the west and south-west. This tribe of trees are of little value except for ornament, and making hedges, for which their rapid growth and prickly limbs eminently adapt them. In some of the southern and western states the honey locust is being tried as a hedge plant. The negroes of the south also make beer from the leaves and green pods.

The tree represented in our cut is a variety introduced into Europe from China, and known as the *Gleditschia horrida nana*. It is a rather small and shrubby, but very handsome tree, growing about 15 feet high, with a spreading habit, and larger and more elegant foliage than the common honey locust, and is armed with very long sharp spires, mostly on the trunk and larger branches. It has been found to stand the cold well, and promises to be an acquisition to our shrubberies. The *Gleditschia*, according to Downington, stands far above the locust for the purpose of embellishing scenery. There is a peculiar elegance about its light green foliage, which sways gracefully in the summer breeze, and folds up on the approach of the slight-

est shower. The branches spread out and form a fine broad head, and there are no dead, unsightly limbs to be seen, as is commonly the case on the locust. It can be made to assume a variety of picturesque shapes in growing up, and does not produce suckers; and when a limited extent is devoted to a lawn or shrubbery, it is one of the first deciduous trees that should obtain a place, and produces a charming effect when combined with other trees of a heavier and darker foliage. It may be readily propagated by grafting on the honey locust, or by seed.

### DESIGN FOR A FLOWER GARDEN IN THE FORMAL STYLE.

THE *Gardener's Chronicle* gives the accompanying plan (see next page) for a flower garden now in course of formation at the Nurseries of Messrs Rollisson, of Lower Tooting, England. It is the best thing of the kind we have ever seen. A conservatory of large dimensions, about 130 feet in length by 28 feet in width, for the exhibition of specimen plants, has recently been erected, and it was desired to arrange the piece of ground in front so as to set this off to advantage, and at the same time to afford an opportunity for the display of any new or remarkable plants. The Coniferous and other trees would be placed in the border on the



left hand side of the principal walk from the entrance gate (A), the Rhododendrons and other American plants in the beds (Nos. 13 and 19), while the Herbaceous, Bedding, and other similar plants, will be arranged in the flower beds at Nos. 12 and 14. The wall of the conservatory being about three feet in height, a border (No. 21) 18 inches wide is to be made at the foot of this, in which climbing plants are to be placed. As there was a slight fall from the conservatory to the ground in front of it, a small terrace bank (No. 22) is formed, which has the effect of raising the walk six inches above the flower garden. It should be observed that there is a fountain in the line of the entrance gate, which forms an appropriate termination to the principal walk. (There was not room to show this in the plan.) The branches of the two *Wistaria Sinensis* (No. 17) will eventually form a kind of arch over this walk, near the gateway.

#### GAS-TAR FOR TRELLISES, &c.

A gardener having occasion to newly paint the wood work in the interior of his green-house, determined to make a trial of the theory of the absorption of heat by black color, with the view of promoting the maturity of his plants and shrubs by means of a greater quantity of caloric. In the preparation of the black paint he used coal tar, that is to say, tar produced by the distillation of coal in the manufacture of gas. This coal tar, beside the advantage of its color, offers considerable economy in painting, being about one-eighth of the price of the material generally used in mixing black paint. The painting here in question was executed before the setting in of winter. On the return of spring the gardener observed with no less surprise than satisfaction that the spiders and other insects which had infested his green-house had totally disappeared. He, moreover, remarked that a vine, trained on an espalier which, for the space of two years, had been sensibly decaying, and which he had purposed to uproot for the purpose of planting another in its place, had acquired such renewed health and vigor as to be capable of producing excellent table grapes. Having applied his new paint to the props, trellises, and espaliers of all his sickly trees and shrubs, as well as those which, though in full bloom, were being devoured by insects, success again crowned his experiment. Caterpillars and snails disappeared as rapidly as the insects had vanished from the green-house. The fruits produced by the trees thus treated have elicited the approval and eulogy of purchasers. Similar experiments tried on the vineyards of the Gironde have, it is said, been attended by the same excellent results.—*The Bulletin*.

GERMAN STOCKS.—The *Illustrirte Garten Zeitung* says that the German seedsmen produce the fine double varieties so well known, by growing the plants in the richest soil, watching them, even from infancy, to see that they receive no check to their luxuriance, either through want of water or from any other cause, until the seed is fully matured.

#### LETTER FROM MASSACHUSETTS—FRUIT CULTURE.

EDITORS GENESEE FARMER:—Massachusetts has a reputation in this department of "man's progress," of which she may be allowed the weakness to show a little pride. Nevertheless, from what I learn from the *Genesee Farmer*, Western New York is becoming the paradise of fruit culture. Perhaps there is nothing more worthy of her enterprise; and it is to be hoped that her population will encourage all efforts to make her domains more beautiful, and her people more prosperous and happy. Her horticulturists and farmers can have no superiors in the country—whose faces, fields, and gardens, I much desire and hope soon to see.

My letter being predestinated to gossip, I will observe that the severity, or the peculiarity, of the past winter has been fatal to some fruits in Massachusetts, and perhaps throughout New England. A very great quantity of peach trees have been killed outright, and I have failed to discover a single peach blossom the past season. About once in four years we have a heavy crop of this fruit, and I suppose we shall continue to. A very large proportion of old and young *Isabella* grape vines have been destroyed, but with no great loss, as in ordinary situations they rarely ripened their fruit perfectly, and there is now little or no demand for them. At present, the call is for the *Diana*, the *Rebecca*, the *Union Village*, and the *Delaware*.

Apples set well, but most of them fell. Of pears there will be a good supply. The New York apples, the *Tompkins County King*, and the *Melon*, are being much disseminated. The only two foreign varieties extensively cultivated here, are the *Gravenstein* and the *Red Astrachan*. The latter is a most beautiful early apple, large, and ripe in the middle of August; a very luxuriant grower and heavy bearer; tender, juicy, rather acid—but with this objection, they will not keep long. On the whole, it is the most desirable apple known. Two large dishes of this fruit were on the tables of the Massachusetts Horticultural Society, on the 13th of August, being the size of well-grown *Greenings*, of beautiful vermilion, and a blue bloom, like a red bloom.

I would like to inquire of some of the correspondents of the *Genesee Farmer*, whether the *Farmhouse* apple does well in Western New York. I have heard that it would not flourish south of the lakes, though it has been well disseminated in Massachusetts. Only in one instance have I seen any fair ones raised in this region, and these were exhibited before they had attained their growth or color. I was happily disappointed, however, last winter, to hear Mr. WILDER recommend it. Very fine ones come from Canada, occasionally, and last December a fruit dealer in Boston was selling them at 50 cents per dozen!

The *Lawton* blackberry does not have much reputation here—the *Dorchester* being preferred both for size and flavor. Several boxes of the latter have just been exhibited at the Massachusetts Horticultural Society one inch and a quarter, and some over, in length! The *High Bush*, or *Dorchester*, has disappointed many from the fact that its fruit has not been of good size, and hence they have been torn up as worthless. But it requires several years to get well established, beside good culture.

**Underdraining for the Pear.**—A neighbor of mine had an acre or more of low, cold land, near his house, which he thought he would put to pearls by the quince root. He therefore underdrained it, and it is now in good shape. He has over a thousand quinces on it, and they grow finely, and all escaped injury by frost the past winter. Some standards, which had been planted several years, started with vigor. His soil is now spongy, and elastic to the touch—though I question whether it will ripen the fruit of the later varieties.

The pear on the quince is very fickle, especially in the young. For my own satisfaction, I worked in a lot of scions on the *Angers* quince, but they all of them perished by spring blight. I think, however, that a few, interspersed with standards, are economical of the soil, and very desirable for they can, with a proper knowledge, of course, be made to do finely.

**Guano.**—They are nowhere! I owe them a spite, and will make an extravagant remark. If some enthusiast would be kind enough to declare that the value of the plum tree had far more manurial value than the best Peruvian guano, the trees would be their just demerits, and many a garden would be placed to something more profitable.

at Melford, Mass., Aug. 15, 1859. D. W. LOTHROP.

### PEAR BLIGHT.

DR. H. OWNING says what is popularly called the pear blight, is, in fact, two distinct diseases. One of them is caused by an insect, and the other by sudden freezing and thawing of the sap in unfavorable seasons. The symptoms of the *insect blight* are as follows: In the month of June or July, when the tree is in full luxuriance of growth, shoots at the extremities of the branches, and often extending down two seasons' growth, are observed suddenly to turn brown. In two or three days the leaves become quite black and dry, and the wood shrivelled and hard as to be cut with difficulty with a knife. If the branch is allowed to remain, the disease sometimes extends a short distance further down the stem, but, usually, not much further than the point where the insect had made his abode.

The remedy for the insect blight is very distinct. It consists, at the very first indications of the existence of the enemy, in cutting off and burning the diseased branch, a foot below the lowest mark of discoloration.

The symptoms of the *frozen-sap blight* are the following: First, The appearance, at the season of winter or spring pruning, of a thick, clammy sap, of a sticky nature, which exudes from the wounds made by the knife; the ordinary cut showing a clean and smooth surface. Second, The appearance, in the spring, on the bark of the trunk or branches, often a considerable distance from the extremities, of black, shrivelled, dead, patches of bark. Third, In early summer months, the disease suddenly manifests itself by the extremities shrivelling, turning black, and decaying, as if suddenly killed. These diseased parts are cut off, the inner bark and heart-wood will be found dark and discolored some distance below where it is fresh and green on the outside.

The most successful remedies for this disastrous blight are chiefly preventive ones. The first point

should be to secure a rich but dry, well-drained soil. The second is to reject, in blighted districts, such varieties as have the habit of making wood late, and choosing rather those of early habit, which ripen the wood fully before autumn. Severe summer pruning, should it be followed by an early winter, is likely to induce blight, and should therefore be avoided. As a remedy for blight actually existing in a tree, we know of no other but that of freely cutting out the diseased branches, at the earliest moment after it appears.

### DESTRUCTION OF APPLE TREES.

**EDITORS GENESEE FARMER:**—I have observed for several seasons past that in Ohio and Indiana, wherever I have traveled, orchards are on the decline. Many trees were already dead, and the greater number in a diseased state; indeed, I saw but few healthy trees wherever I went. I well know that bad culture, or no culture rather, has much to do with such cases. But still this may not be the sole cause. I have observed, and heard many others remark, that the tom-tit or sap-sucker pecks the tree, which seems the first symptom of decline or decay, and attribute the injury to this mischievous bird. This I think is not the fact. It would seem that the tree becomes diseased from some cause, which imparts to the sap a taste relished by the bird, and induces it to seek it as food. One feature is evident, that the attack is always made on the southwest side of the tree; hence some have thought that the hot rays of the sun causes the disease. But be the cause what it may, it is certainly discouraging. I trust others will speak on this subject, and that science may discover the cause and point out a remedy.

ABRAHAM BAER, JR.

Pipestown, Berrien county, Mich.

**SULPHUR FOR MILDEW.**—At the last meeting of the Royal Agricultural Society, a letter was read from Mr. BULLOCK, dated from Athens, in which he states he has been devoting attention to the Vine disease, and that the application of sulphur has proved most successful in Greece, and that the same effect has been produced on blighted green crops. He can speak with confidence as to Potatoes, Beans, Peas, fruit trees, Roses, trees, &c., and that he has no doubt of its efficacy as regards both Turnips and Hops. He also states that the sulphur ought to be applied in a very fine powder in the early stage of the growth of the plant, as soon as any blight shows itself; it is applied either by means of a large tin pepper-box or small bellows. A woman can dress an acre of Vines per day. Scarcely any change will be observable in the crop for the first ten days; after that it becomes healthy. Should rain fall within five days after the application of the sulphur the operation has to be repeated.

**RIPENING SEEDS.**—COBBETT and other writers on horticulture have ridiculed the practice of gardeners carrying seeds (melon, for instance,) in their pockets for a considerable time to improve them. There may, however, be some truth in this notion; for it has been suggested by an eminent botanist, that the seeds thus carried probably become more fruitful after having been kept some time, for the same reason that plants are more likely to come to full flower after a lengthened season of rest.

## Ladies' Department.

### ORIGINAL DOMESTIC RECEIPTS.

[Written for the Genesee Farmer by various Correspondents.]

**BOILED FRUIT PUDDING.**—Take enough flour for a crust; add dry to the flour a little salt and saleratus made fine; wet with sour cream; roll the crust, and line the inside of a buttered bowl; put in a layer of any kind of fruit or preserves, (I prefer preserved currants;) then crust and fruit alternately, until the bowl is full; cover the top with a crust, press tightly the edge, tie it in a cloth, then plunge in boiling water and boil two hours. If more water is needed, replenish with boiling water, as it should be kept covered with it and constantly boiling, if a light, dry crust is desired. It should be frequently turned to prevent its sticking to the kettle. When done, run a knife around the sides of the bowl, that it may turn out whole. Serve hot with sweet cream.

**CANADIAN WHASP.**—One quart of warm water (not scalding), the size of a pea of salt; mix with flour to a thick batter in a three quart kettle; set in a pot of warm water six or seven hours, and if the flour is good it will be as light as a sponge; when light, take one cup of sweet milk, grate half an nutmeg into it, one cut of fine mashed potatoes; mix them gently in the batter, and let it stand and rise again. Bake on a griddle. They are delicious for tea; eat with sugar and butter.

**INDIAN QUEEN CAKE.**—One cup fat, one cup sour milk, one cup corn meal, one cup shorts, one cup potatoes (mashed through a fine wire sieve), one cup white flour, one cup maple sugar, one egg, teaspoonful soda, teaspoonful salt, half an nutmeg, half of one lemon peel (grated fine). Pour in a buttered tin; baste with the white of an egg over the top; bake half an hour in a hot oven; cover with crushed sugar. Eat hot, for tea.

**FOR MAKING CITRON-MELON PRESERVES.**—Cut the melon in what form you please; place in a kettle with water enough to cover, and boil until soft, previously adding a piece of alum; when done put to drain, and then place in a jar with sugar, an alternate layer of each: a pound of sugar to a pound of melon. When the sugar is dissolved, boil, adding lemon and ginger root to suit the taste.

**GIPSEY QUEEN CAKE.**—One cup fat of fowls, two cups white flour, one cup shorts, one cup sour milk, one egg, one cup brown sugar, one cup mashed potatoes, half an ounce ground grape seed, six drops cinnamon, teaspoonful soda, teaspoonful salt. Mix well; bake in buttered tins in hot oven, half an hour; baste the top with the yolk of an egg, laid with white sugar.

**CORN COOKIES.**—One cup of sour cream, half cup of butter, one cup of sugar, one cup of flour, two cups of corn meal, one teaspoonful of soda (rub in the flour dry), half-teaspoonful of salt, one egg, half of one nutmeg. Put all in together, mix with a spoon until it becomes a light foam; bake in a hot oven 25 minutes. Eat with tart preserves for tea. They are delicious.

**HONEY DEW BISCUIT.**—One cup fresh butter, one cup loaf sugar, one ounce honey (melted with comb), six drops oil cinnamon, one cup sour cream, two cups flour, one teaspoonful soda (rubbed dry the flour), half-teaspoonful salt in the cream, one egg. Mix thoroughly; bake in a hot oven 25 minutes. Eat with cold fruit and cream.

**TEA FLIPS.**—Two cups of corn meal, one cup flour, one egg, one cup of the fat of fowls, two cups of sour milk, one teaspoonful of soda, half spoonful of salt, half-spoonful ground cake (pine apple or lemon is very nice.) Mix to a light foam; bake on a griddle; eat hot, with honey maple molasses.

**TOMATO PICKLES.**—Chop green tomatoes fine; one gallon of tomato add one tea-cup of salt; it stand twenty-four hours and draw off the liquid put in a few onions (chopped fine), two tablespoonfuls of cloves, of mustard seed, of pepper of allspice, each, and pour on boiling vinegar.

**RICE PUDDING.**—The yolks of four eggs; tea-cup of boiled rice; one pint of milk and a little salt. Take the whites of the four eggs and pound of white sugar, a few drops of lemon juice make a frosting, and just as the pudding is done spread it on, and set it in the oven to harden.

**TOMATO CATSUP.**—Scald and peel the tomato then place them in a dish to boil a few minutes when cool, rub through a sieve, adding pepper salt and cloves, to the taste; after which boil again and add one table-spoonful of brandy to one pint of the catsup. Cork and seal while hot.

**LABOR SAVING SOAP.**—Take four pounds of soap; put in water enough to dissolve it. Then after dissolving an ounce of borax, stir in, and let it in a pan to cool. Then cut in pieces convenient for use, and rub on stains and dirt before boiling.

**WINE PANADA.**—Put two table-spoonfuls of good port wine into a bowl and pour on it a pint of boiling water; sweeten to the taste. Eat warm, with crackers broken in it. In case of fevers, it can be prepared cold.

**CORN BEEF.**—Fresh beef, boiled in very hard water, is nicer, sweeter, and tenderer, than that which has been pickled before cooking—and a family that can get fresh beef, may corn it as they want it.

**RED FOR TEN POUNDS.**—Seven pounds redwood three-fourths of a pound of fustic; boil two hours. Take out the dye stuff; add two pounds of alum. Put in the goods and let them remain till morning. For carpet rags, good and cheap.

**BLUE FOR TEN POUNDS.**—Prepare with one ounce bichromate potash, one ounce alum; boil two hours. Then boil one pound logwood one hour; put in the goods, and boil half an hour.

**TO MAKE HONEY.**—One pound strained honey, eight pounds brown sugar; eight drops essence peppermint. Steep together a short time.

**PUFF PUDDING.**—Stir nine eggs and twelve table-spoonfuls of flour together; one quart of milk and a little salt. Bake fifteen minutes.

**FOR MAKING SOAP.**—Five quarts of water; one quart of soft soap; one pound of sal soda.



## New Advertisements this Month.

Land and Ornamental Trees—Ellwanger & Barry, Rochester.  
 Hardy Grapes— do do do  
 Sign Grapes for Vineries— do do do  
 Rochester Nurseries—S. Moulson, Rochester, N. Y.  
 Essex Valley Nurseries—A. Frost & Co., Rochester, N. Y.  
 Sorted and Pure Bred Stock—F. W. Stone, Guelph, C. W.  
 It's Sorgho and Imphee—A. O. Moore & Co., New York.  
 Jardin Nurseries, Angers, France—Paul Bossange, agent  
 York.  
 Fruit Trees—C. Reagles & Son, Schenectady, N. Y.  
 Brero Guano—Wood & Grant, New York.  
 Virginia Farm Lands—L. H. Reynolds, Maple Valley, Va.  
 Hill Nurseries—Godfrey Zimmerman, Buffalo, N. Y.  
 Rochester Central Nurseries—C. W. Seelye, Rochester, N. Y.  
 Lorry for Sale—S. Smith, Dairy Depot, Conn.  
 Seeds for Fruit Trees—H. E. Hooker & Co., Rochester, N. Y.  
 New Grapes— do do do  
 Finger Nails for Husking Corn—J. H. Gould & Co., Alli-  
 Ohio.

REPORTS ON THE WEATHER FROM JULY 15TH TO AUGUST  
 1859.—The temperature of the first half of July was  
 to the average for twenty years. Scarcely any rain  
 fallen till the 15th, which put an end to the drouth  
 had become oppressive.  
 The average heat of the last half of July was 69.59,  
 3° below the mean for twenty-two years. Indeed,  
 weather was cool for the last fortnight, but as the  
 was already much heated when the rain of the 15th  
 fell in abundance, the progress of vegetation  
 was very rapid, especially did Indian corn advance so  
 to give some good promise of a tolerable crop. Cer-  
 tainly the new and sweet corn appeared in market as early  
 usual, and indeed earlier, as that grown for the table  
 advanced too far to be affected by the frosts, and the  
 were abundant. There fell in the last half 3.73  
 inches of water, and in the month 4.16 inches.  
 The greatest heat at 2 P. M. was 96° on the 8th, and  
 followed by the thunder storms, which had cooled the  
 on the 21st to 63°, and made some fire quite a conve-  
 nience. At Cincinnati this was the hot day, 100° in the  
 shade. The last two days of the month were hot, but the  
 heat was only 90° on the 31st. On the 17th was a  
 severe tornado and thunder storm near Memphis, Tenn.  
 On the 24th a terrible tornado at Decatur, Tenn. Wheat  
 was harvested. The fruits and vegetables of the season  
 have been abundant. The average heat of the month 69.39,  
 1° below the mean for twenty-two years.  
 August made a very favorable impression, certainly to  
 the 16th, whatever may follow. Though the mean heat  
 was 72.3°, or near 2° above average for twenty-two years,  
 the weather was very fine—the heat at 2 P. M. not above  
 80°; evenings very fine and clear, while the full moon was  
 on the 15th; mornings, for twelve of the fifteen, clear and  
 dewy, so that the dew fell from the leaves of trees  
 and ran from tin or zinc roofs. All nature smiled; nay,  
 laughed outright.

At the beginning of August, whortleberries succeeded the red and black raspberries, and those the blackberries have begun to displace; while pears, apples and plums are sold on every side, and at moderate rates. Only potatoes, quite abundant, cry out for money with success. The Indian corn is looking finely.

Wheat declined from \$1.30 a bushel to less than \$1 in July, and has not been able to lift up her voice for more silver so as to be heard. The poor have rejoiced; some of the rich have been glad. *Truly the lines have fallen to us in pleasant places, and we have a goodly heritage.*

THE CROPS.—We have letters from correspondents in all sections of the country, giving on the whole very favorable accounts of the crops, with the exception perhaps of corn, extracts from some of which we give below: J. O. DANVERS, Bradford county, Pa., writes: "Our hay crop is not quite an average one, but of good quality. Oats are above the average—enough to compensate for any deficiency in the hay. Wheat, especially spring wheat, is more than the average, and a considerable breadth has been grown this year. Corn is behind time and will probably be a small crop. Potatoes and buckwheat promise well. Fruit is scarce."

G. B. MILLER, Clark county, Ind., says: "Wheat through this section was unusually good. Oats very indifferent. Hay good. Potatoes look fine. Corn, a fair prospect, but the plants are yet small. Fruit, half a crop."

J. H., Clinton county, Ohio: "We have been suffering from drought for some weeks past. Wheat about half a crop, but a fine berry. Corn will be light. Some fruit—enough for home consumption."

J. H. STOUT, Greene county, Ill.: "Wheat, a pretty fair crop. Oats light. Hay tolerably good. Corn generally late, but a fine color, and if we escape the September frosts we shall have plenty of it."

S. L. BOUGHTON, Wood county, Ohio, writes: "Wheat in some sections was injured by the June frosts, but on the Maumee river is a fine crop. Oats very good. Grass rather light. Corn looks promising, and bids fair to be the largest crop ever harvested. We have apples, but little other fruit."

BARTON WORKS, Rockford, Ill., under date August 18th, writes: "It rains to-day, and I am feeling quite grateful. This is the first good rain since the last week of May. Corn is pretty much check-mated, and potatoes almost a failure. Nothing has flourished during the last six months but chinch bugs, and they have burnt up quite too large a portion of the corn; but this rain, if it only continues, will set them back considerably. Corn can not be more than half a crop in this section of the state. I need not tell you that wheat, oats, barley, and rye, are pretty fair in this part of the west."

Within the last three weeks, although latterly the nights have been cold, Indian corn in this vicinity has advanced with astonishing rapidity. The prospect now is that we shall have nearly if not quite an average crop.

Notwithstanding the high price of seed, a considerable breadth of land was sown with buckwheat, and it is coming forward rapidly, and unless we have early frosts, there will be a good yield.

Where properly thinned out and hoed, turnips are doing finely. We ought not to expect a good crop unless they are hoed.

**NOT TOO LATE TO GET SUBSCRIBERS.**—We would again return our sincere thanks to our numerous friends who have consented to act as agents for the *Genesee Farmer*. Several thousand new subscribers to the current half-volume have been already received, and we have still the pleasure of adding forty or fifty new names to our list each day. Our clerks complain that the books are not large enough to hold the names; but no one need hesitate to send us new subscribers on this account. We will make room for them.

The hurry of farm work is now over, and farmers will have more time to read. If there are any in your neighborhood who are not provided with an agricultural paper, will not each friend of the *Genesee Farmer* see if he can not induce them to give it a trial for the current half-volume. We send the half-volume to any address for 25 cents in postage stamps; five copies for one dollar; eight copies for \$1.50; and, in each case, send a *Rural Annual* to the person getting up the club.

It should not be forgotten that we offer twelve Cash Premiums, amounting to nearly one hundred dollars, for the largest number of subscribers to the half-volume, sent in previous to the *fifteenth day of October*. Any of our readers can easily take one of these premiums. The numerous Town and County Agricultural Fairs soon to be held will afford a good opportunity to get subscribers. We shall be happy to send any of our friends a few copies of the *Farmer*, and hand-bills, for gratuitous distribution on these occasions.

**SALE OF IMPORTED AND PURE BRED STOCK.**—The Third Annual Sale of Mr. FRED. WM. STONE'S imported and thorough bred stock takes place at Geulph, C. W., on the 7th of September. For particulars, see advertisement in this number. We need hardly say that Mr. STONE is one of the largest importers and most successful breeders of thorough-bred stock on the continent. Those of our friends who have recently asked where Cotswold sheep could be obtained, should attend this sale. Mr. STONE'S Cotswolds are decidedly the best we have seen in this country or in Canada.

Mr. STONE writes, August 2d, "Yesterday I forwarded by Great Western cars, ten Cotswold rams, five South-Down rams and one improved Leicester ram, with six Cotswold ewes and three South-Down ewes, selected and purchased by a gentleman from New York for ALBERT DIBBLE, Esq., of San Francisco, California." We believe this is the second lot of sheep which Mr. S. has sold to go to California this year.

**SPORTING ON THE PRAIRIES.**—The Hon. GRANTLY F. BERKELEY writes us that he intends visiting the United States for the purpose of shaking hands with American sportsmen, and visiting the prairies. He will bring with him some of his hounds and dogs. He expects to arrive in New York about the 2d of September. Mr. B. is a well known contributor to the *London Field*, and will write an account of his travels for that paper.

**NEW ROCHELLE BLACKBERRY.**—We are indebted to Messrs. C. P. BISSELL & SALTER, of this city, for a fine dish of *New Rochelle* or *Lavton* blackberries. This fruit, the present season, has more than sustained its reputation. Where properly cultivated, the crop was immense, and the berries of great size, and when *fully ripe*, quite sweet and of good flavor.

**EXTRAORDINARY YIELD OF WHEAT.**—The *Grand River Sackem* says, Mr. MARTINDALE, of Oneida township, W., left at that office sixty-five stalks of fall wheat, grown from one grain. He got a teacupfull of the second prize wheat at the Provincial fair last year, and planted in his garden in rows seven inches apart, each kern being three inches apart in the drills; and from this small patch he has threshed seven quarts of good seed wheat beside the stalks he sent to that paper.

### Inquiries and Answers.

**FORCE PUMP.**—(W. C. H.) J. M. EDNEY, 147 Chamber street, New York, manufactures a pump which will probably accomplish your object. Those who have used it speak of it in the highest terms. The *New York Independent* says "a woman or boy can work it with ease raise water 60 feet, and a man can raise it 100 feet all day \* \* One of these pumps has recently been put in at house in Greenwich, Ct., built by G. D. HAWKS, now owned by ROBERT M. BRUCE, of this city, by which a man is able to force a supply of water up a hill, a distance of 540 feet, and a perpendicular height of 97 feet." Send Mr. EDNEY for a circular, giving price, &c.

**HEAVES IN HORSES.**—Will some of your many able writers inform me through the *Farmer*, what will cure the heaves, as I have a fine brood mare that has it maddening bad.—JONATHAN WYNN.

We believe it can not be permanently cured; but allowing the animal to run at grass in summer, cutting up its hay or straw in winter and giving it mixed with water and crushed grain, care in allowing it no dry food, especially oats, at any time; nor letting it drink more than a pailful of water at any one time; driving the animal steadily and slowly, will ameliorate this disease, and enable the animal to show but little of it.

**TENTS FOR AGRICULTURAL FAIRS.**—(H. C. WILLIAMS, C. W.) Mr. JAMES FIELD, of this city, has tents of all size suitable for Agricultural Fairs, which he rents at reasonable rates for the occasion. His tents give general satisfaction. He will send a competent man to erect the tents and take charge of them. See his advertisement in this number.

**PINE SEED.**—(N. V., Argo, Lucas county, Iowa.) The seed of the Austrian or Black pine may be procured from J. M. THORBURN & Co., 15 John street, New York, who keep on hand an assortment of the seeds of most evergreen trees.

**FLOUR SACKS.**—(G. R.) You can procure these at all kinds from M. VANDERHOOF, 171 West street, New York. See his advertisement in the last number.

**TO PREVENT HENS FROM SITTING.**—How can hens be prevented from sitting without cutting their heads off? Mine will sit on their nests without eggs till they die, and I have tried many preventives without success.—C. C. P. GOULD, *Fon du Lac, Wis.*

Ducking them in cold water and then shutting them up in a dark box or barrel, might be tried.

**HERNIA IN COLTS.**—**HARD MILKERS.**—Will any reader of the *Farmer* please inform me of the most proper method to treat cases of exomphalos, or umbilical hernia, in the colt? Has any *cut* Yankee practiced, with encouraging success, the operation of dilating with a bougie the opening orifice in the cow's teat?—JOHN M. CLARK, *Carthage, Indiana.*



**PAYING COWS.**—Will some of your correspondents inform me whether spaying cows is a good practice, and so at what age it should be performed? How soon after she has had a calf? Will she hold out to as great an age as if she has a calf once a year, or nearly so? What will be the quantity of milk she will give, compared to what we should reasonably expect, were she not spayed? Are not they more subject to diseases than though the course of nature was not changed? Will they keep as long with the same chance?—W., *Hornellville, N. Y.*

**CORN-SHELLER.**—Which is the best corn-sheller for a single person to work with, and which does not cost more than \$5 or \$7? I can get a Yankee Corn-Shellor for \$5. I thought perhaps there might be some better one for a single person to operate.—SUBSCRIBER, *Elliot, Me.*

**BROOM CORN.**—I would like to see an article in your issue filled and interesting pages, on the manufacture of brooms, and also on raising the crop. Most of the western brooms get loose on the handle.—S. B., *Tippicanoe, Ind.*

**CHINESE SUGAR CANE.**—Will some of your many subscribers give me information, through your valuable paper, regarding the manufacture of sugar and molasses from the Chinese sugar cane?—D. M., *Chariton, Iowa.*

**PLOWING LAND WHILE WET.**—Will plowing land while it injure it otherwise than that the trampling of the horses may render it so hard that it might be difficult to plow?—W. I., *Hartwood, Va.*

**ICE HOUSE.**—Would an ice house answer if placed at the end of a vault wholly under ground; or on what principle is an ice house constructed?—Wm. BLACK, *Fulton Co., Pa.*

**HARD MILKERS.**—Can anything be done to make a cow milk more easily, that is now hard to milk?—W.

Notices of Books, Pamphlets, &c.

**CHRISTIAN STEWARDSHIP.** By Rev. J. ASHWORTH, of Rochester.

Judge McLEAN, of the United States Supreme Court, by whom this work was selected from a number of competing volumes for a prize of \$200, says: "It has high merit, and can not fail to do much good." The *Steuben Farmer's Advocate* says, "It is adjudged by the most competent to be the best work ever written upon this subject." Sent by mail free on the receipt of fifty cents, the retail price, by W. J. MOSES, publisher, at Auburn, N. Y.

E. DARROW & Bro., of this city, have imported a large number of the Collins Glasgow Bibles, with their own imprint. There are fifteen different styles of binding, varying in price from 37½ cents to \$2.50.

**LIVES OF THE QUEENS OF SCOTLAND,** and English Princesses connected with the Royal Succession of Great Britain. By AGNES STRICKLAND. Vol. 2. New York: HARPER & Bro's. Price \$1.

**POPULAR TALES FROM THE NORSE.** By GEORGE WEBER DECENT, D. C. L. With an Introductory Essay on the Origin and Diffusion of Popular Tales. New York: D. APPLETON & Co. Price \$1.

**THE FRENCH REVOLUTION OF 1789,** as viewed in the light of Republican Institutions. By JOHN S. C. ABBOTT. With 100 engravings. New York: HARPER & Bro's. Price \$2.50.

**GERALD FITZGERALD, "The Chevalier."** By CHAS. LEVER, author of "Charles O'Malley," &c. New York: HARPER & Bro's. Part 2d. Price 25 cents.

**ELEMENTARY GRAMMAR.** By Wm. C. FOWLER. Designed for general use in Common Schools. New York: HARPER & Bro's. Price 50 cents.

All the above books are for sale by D. M. DEWEY, of this city, or they can be obtained from the respective publishers, sent, prepaid by mail, for the price annexed.

Agricultural Exhibitions for 1859.

The following list of Agricultural Exhibitions to be held in the United States this year, has been prepared with much care. There may be some omissions and errors, but we have been at considerable pains to make it as complete and reliable as possible. It was our wish to give a list of the County Fairs in Canada, but we have been unable to get the necessary information.

Name.	Where held.	Date.
United States	Chicago, Ill.	September 12—17.
Horse Exhibition	Kalamazoo, Mich.	October 11—14.
STATE.		
American Institute	New York	September 21—23.
Alabama	Montgomery	November 15—18.
California	Sacramento	September 27—Oct. 6.
Canada West	Kingston	27—31.
Connecticut	New Haven	October 11—14.
Illinois	Freeport	September 5—9.
Indiana	New Albany	" 25—30.
Iowa	Oskaloosa	" 27—30.
Kentucky	Lexington	" 13—17.
Kentucky Central	Danville	" 6—9.
Kentucky South	Glasgow	" 27—30.
Kentucky Southwest	Louisville	" 20—24.
Kentucky North	Maysville	" 13—17.
Maine	Augusta	" 20—23.
Marland	Frederick City	October 25—28.
Michigan	Detroit	" 4—7.
Missouri	St. Louis	September 26—Oct. 1.
Missouri, N. W. Dist.	St. Joseph	" 15—22.
Missouri Central	Boonville	October 15—5.
Nebraska	Nebraska City	September 21—23.
New Hampshire	Dover	October 5—7.
New Jersey	Elizabeth	September 13—16.
New York	Albany	October 4—7.
Ohio	Zanesville	September 20—23.
Pennsylvania	Philadelphia	" 27—30.
St. Louis Ag. & Mechanical Association	St. Louis, Mo.	" 26—Oct. 1.
Seaboard Ag. Society of Virginia and N. Carolina	Norfolk, Va.	November 5—11.
South Carolina	Columbia	November 8—11.
Southern Central	Atlanta, Georgia	October 23—25.
Tennessee	Nashville	" 5—7.
Tennessee, Middle Division	Shelbyville	September 26—Oct. 1.
Tennessee, Western Division	Jackson	October 13—22.
Vermont	Burlington	September 13—16.
Virginia Central	Richmond	October 24—27.
Virginia Western	Wheeling Island	September 13—16.
Wisconsin	Millwaukee	" 26—30.
COUNTY.		
NEW YORK.		
Caruga	Auburn	September 14—16.
Cattaraugus	Little Valley	" 27—29.
Chautauque	James-town	" 13—15.
Chenango	Norwich	" 21—23.
Delaware	Bloomville	" 14—15.
Erie	Buffalo	" 27—29.
Essex	Elizabethtown	" 22—23.
Greene	Cairo	" 25—29.
Genesee	Batavia	" 14—15.
Jefferson	Watertown	" 27—29.
Livingston	Getteso	" 20—22.
Lewis	Lowville	" 21—22.
Montgomery	Rocheater	" 28—30.
Oneida	Rome	" 27—29.
Ontario	Canandaigua	" 25—29.
Orondaga	Syracuse	" 30—22.
Orange	Grahen	" 21—22.
Orleans	Albion	" 20—22.
Oswego	Mexico	" 13—15.
Oswego	Copertown	" 22—29.
Pulnam	Carml	" 27—29.
Queens	Hempstead	" 15.
Rensselaer	Lansingburg	" 13—16.
St. Lawrence	Canton	" 24—30.
Schuyler	Watkins	" 14—16.
Saratoga		" 6—8.
Seneca	Waterloo	October 12—14.
Steuben	Bath	September 23—24.
Tompkins	Ithaca	" 21—23.
Washington	Fort Ann	" 7—8.
Westchester	North Salem	" 20—22.
Wyoming	Warsaw	" 27—28.
Yates		October 12—13.

MAINE.			
Androscoggin	Lewiston	October	4-6.
Franklin	Farmington	"	5-7.
Franklin North	Strong	September	28-29.
Kennebec	Readfield	October	11-13.
Lincoln	Union	"	18-20.
Penobscot	Lincoln	"	5-6.

NEW HAMPSHIRE.			
Conn. River Valley	Charlestown	September	20-22.
Souhegan	Wilton Center	"	22.

MASSACHUSETTS.			
Bristol	Taunton	September	14-15.
Barnstable	Barnstable	October	5-6.
Berkshire	Pittsfield	"	5-7.
Essex	Danvers	September	28-29.
Franklin	Greenfield	"	27-28.
Hampden	Springfield	"	21-22.
Hampshire	Amherst	October	13-14.
Hamden East	Palmer	"	4-5.
Housatonic	Great Barrington	September	28-29.
Hampshire, Franklin &c.	Northampton	"	28-29.
Middlesex	Concord	"	28.
Middlesex South	Framlingham	"	20-21.
Middlesex North	Lowell	"	21.
Martha's Viny'd west	Tisbury	October	11-12.
Nantucket	Nantucket	October	12-13.
Norfolk	Dedham	September	27-28.
Plymouth	Bridgewater	October	5-6.
Worcester	Worcester	September	28-29.
Worcester South	Sturbridge	"	28.
Worcester North	Pitchburg	"	29-30.
Worcester West	Barre	"	27.

CONNECTICUT.			
Fairfield	Norwalk	September	27-30.
Hartford	Hartford	"	27-30.
Middlesex	Middletown	October	5-7.
Windham	Brooklyn	September	21-22.

NEW JERSEY.			
Cumberland	Bridgeton	September	28.
Franklin	Somerset	October	4-6.
Warren	Belvidere	"	11-14.

PENNSYLVANIA.			
Bucks	Newtown	September	21-23.
Berks	Reading	"	21-23.
Chester	West Chester	"	23-24.
Conneangh Valley	Blairsville	October	4-6.
Crawford	Conneautville	"	5-7.
Cattaraugus	Little Valley	September	27-29.
Eric	Eric	"	21-22.
Mercer	Mercer	"	14-15.
Monongahela	Monongahela City	October	5-7.
Union	Lewisburgh	"	6-8.

OHIO.			
Adams	West Union	September	27-30.
Ashland	Ashland	October	12-14.
Ashtabula	Jefferson	September	18-15.
Brown	Georgetown	"	6-9.
Brown (Independent)	Lipley	"	20-23.
Belmont	St. Clairsville	"	27-29.
Butler	Hamilton	October	4-7.
Carroll	Carrollton	"	25-27.
Crawford	Bucyrus	"	12-14.
Clark	Springfield	"	4-6.
Cuyahoga	Cleveland	"	4-6.
Columbiana	New Lisbon	September	28-30.
Clermont	Olive Branch	"	27-30.
Champaign	Urbana	"	27-30.
Clinton	Wilington	"	15-17.
Clermont	Bantam	"	7-9.
Defiance	Defiance	"	28-30.
Darke	Greenville	October	4-6.
Delaware	Delaware	"	11-13.
Eric	Huron	September	14-15.
Fayette	Washington	"	7-8.
Fairfield	Lancaster	October	13-15.
Franklin	Columbus	September	13-16.
Fulton	Otakee	"	28-30.
Geauga	Burton	"	18-15.
Genaga (Free)	Claridon	"	28-30.
Guernsey	Cambridge	"	15-16.
Gallia	Gallipolis	"	15-16.
Greene	Xenia	"	27-29.
Hamilton	Carthage	"	18-16.
Highland	Hillsboro	"	27-29.
Hancock	Findlay	October	3-5.
Harrison	Cadiz	"	5-7.
Hartford	Kenton	"	12-14.
Jefferson	Stuebenville	September	14-16.
Knox	Mt. Vernon	"	28-30.
Loraine	Elyria	"	27-29.
Lucas	Toledo	"	27-29.

Logan	Bellefontaine	October	8-6.
Licking	Newark	"	5-6.
Lake	Painesville	"	5-7.
Morgan	McConnellsville	"	12-14.
Montgomery	Dayton	"	5-8.
Monroe	Woodsville	"	5-7.
Morrow	Mt. Gilead	"	5-7.
Muskingum	Zanesville	"	5-7.
Mahoning	Cantfield	"	4-5.
Medina	Medina	September	27-29.
Madison	London	"	14-16.
Marion	Marion	"	14-16.
Noble	Sarabsville	October	5-6.
Ottawa	Port Clinton	September	28-30.
Portage	Kavenna	"	19-21.
Preble	Eaton	"	22-28.
Pickaway	Circleville	"	26-30.
Putnam	Ottawa	"	29-30.
Ross	Chilliothe	October	4-6.
Summit	Akron	"	12-14.
Stark	Canton	"	5-7.
Sandusky	Fremont	"	5-7.
Seneca	Tiffin	September	28-30.
Tuscarawas	Canal Dover	"	28-30.
Trumbull	Warren	October	12-14.
Union	Marysville	September	28-30.
Warren	Lebanon	"	14-16.
Wood	Bowling Green	October	5-6.
Wyandot	Upper Sandusky	"	5-7.
Wayne	Wooster	"	5-7.

MICHIGAN.			
Allegban	Allegban	September	28-29.
Barry	Hastings	"	29-30.
Berrien	Niles	"	27-29.
Cathoun	Marshall	"	29-0.
Eaton	Charlotte	"	26-28.
Genesee	Flint	"	28-29.
Hillsdale	Hillsdale	October	12-18.
Ionia	Ionia	September	29-30.
Ingham	Mason	October	6-7.
Jackson	Jackson	September	28-30.
Kent	Grand Rapids	"	28-30.
Lapeer	Lapeer	October	18-20.
Lenawee	Adrian	"	5-6.
Lenawee Northern	Teenuseh	September	21-22.
Macomb	Utica	October	10-12.
Oakland	Pontiac	"	12-13.
Sauilac	Lexington	September	27-28.
Sbiawasse	Corunna	"	29-30.
St. Joseph	Centerville	"	28-30.
Van Buren	Paw Paw	"	29-0.
Washtenaw & Wayne Union	Ypsilanti	September	28-30.
Washtenaw	Ann Arbor	October	11-13.

INDIANA.			
Boone	Lebanon	October	18-15.
Clay	Centro Point	September	28-30.
Clark	Charlottesville	"	21-23.
Cong. Dist. Union	Cardellville	October	5-7.
Decatur	Greensburgh	September	13-16.
De Kalb	Auburn	October	17-19.
Dearborn	Dearborn	September	20-23.
Fayette	Connersville	"	6-9.
Fulton	Rochester	October	14-15.
Hancock	Greenfield	September	21-23.
Henry	Newcastle	"	14-16.
Hendricks	Danville	"	18-16.
Johnson	Franklin	"	21-24.
Lawrence	Bedford	"	5-8.
Laporte	Laporte	October	4-9.
Marion	Indianapolis	September	19-24.
Marshall	Plymouth	October	12-14.
Miami	Peru	"	5-7.
Owen	Spencer	September	14-16.
Putnam, Parke, and Montgomery	Russellville	August 30-Sept.	
Parke & Vermillion	Montezuma	September	13-16.
Putnam	Greencastle	"	5-9.
Putlaski	Winimac	October	25-26.
Posey	New Harmony	"	25-27.
Rush, Henry, and Hancock	Knightstown	September	6-9.
Rush	Rushville	"	18-16.
Shelby	Shelbyville	"	7-10.
Spencer	Rockport	"	20-22.
Sullivan	Carlisle	"	14-16.
Washington	Salem	"	18-16.
Warren	Williamsport	"	28-30.
Wabash	Wabash	October	5-7.
Warrick	Booneville	"	4-8.
Whitley	Columbia City	"	14-15.
Wells	Bluffton	"	4-5.

MISSISSIPPI.			
De Soto	Hernando	September	27-29.
Marshall	Holly Springs	October	28-29.
Moore	Aberdeen	"	18-20.

ILLINOIS.

Quincy	October	12-14.
Princeton	"	4-7.
Mt. Sterling	"	12-14.
Mt. Carroll	September	21-23.
Virginia	August 30	Sept. 1.
Urbana	October	4-7.
Charleston	September	14-17.
Morris	"	20-23.
	"	28-30.
Carthage	October	14-16.
Cambridge	"	4-6.
McLeansboro	"	5-7.
Soldier Creek Grove	"	4-7.
Dixon	"	10-15.
Amboy	"	4-7.
	"	4-7.
Pontiac	September	27-29.
Libertyville	"	27-29.
Decatur	"	20-23.
Edwardsville	"	20-23.
Mattoon	"	21-25.
Bloomington	"	23-30.
	October	4-6.
Rock Island	September	21-23.
Belleville	"	14-16.
Springfield	October	4-7.
Winchester	"	5-7.
Rushville	September	23-30.
Toulon	"	29-Oct. 1.
Shelbyville	October	11-14.
Premont	September	23-20.
Paw Paw	"	29-30.
Cattlin	"	20-23.
Monmouth	"	21-23.
Morrison	"	23-30.

WISCONSIN.

Portage City	September	20-21.
Madison	"	20-22.
Juneau	"	14-16.
Lancaster	"	13-15.
Monroe	"	22-24.
Dodgeville	"	6-7.
Lake Mills	"	21-22.
	"	23-24.
Manitowoc	October	3-4.
Prescott	September	14-15.
Richland Center	"	23-29.
Janesville	"	20-22.
Sheboygan Falls	"	14-15.
Hudson	"	20-21.
Waukesha	"	14-16.
Wautoma	October	12-13.
Waupaca	September	20-21.
Elkhorn	"	21-23.
Oshkosh	"	22-23.

IOWA.

Centerville	October	6-7.
Boonesboro	September	24-25.
Clarksville	"	28-29.
Waverly	"	28-29.
Mason City	October	10-11.
Y. Butlers	"	6-7.
Delhi	"	4-5.
St. Charles City	"	5-6.
Eldora	September	21-22.
Webster City	October	19-20.
Dakota	"	4-5.
Marengo	"	6-7.
Chariton	"	12-13.
Oskaloosa	September	14-16.
Albion	October	6-7.
Jacksonville	September	20-23.
Des Moines	"	16-18.
Montezuma	"	22-23.
Shelbyville	October	27-28.
Toledo	September	21-22.
Fort Dodge	"	14-15.
Indianola	October	6-7.

KENTUCKY.

Paris	September	6-9.
Danville	"	6-10.
Winchester	August 30	Sept. 2.
Owensboro	October	11-14.
Henderson	"	18-21.
Cynthiana	September	20-23.
Independence	"	27-Oct. 1.
Germanstown	October	11-14.
Salvisa	September	27-30.
Bardstown	"	27-30.
Eminence	"	12-16.
Bowling Green	"	20-23.
	"	4-7.

MISSOURI.

Columbia	September	27-30.
Pleasant Hill	"	20-23.
Keystone	October	3-6.
Booneville	"	3-6.
Plattsburg	September	12-16.
Greenfield	October	12-14.
Hermann	September	21-22.
Fayette	"	13-16.
Newark	"	27.
Mt. Vernon	October	4-6.
Tipton	"	10-13.
St. Josephs	September	18-22.
Bowling Green	October	4-6.
Huntsville	August 31	Sept. 3.
Miami	September	20-23.

TENNESSEE.

Huntingdon	October	27-30.
Dyersburg	"	26-29.
Jackson	"	15-23.
Somerville	"	4-8.
Trenton	September	27-30.
Paris	October	12-14.
Centerville	"	4-8.
Fayetteville	"	3-8.
Lafayette	"	18-21.
Columbia	September	19-24.
Lewisburg	"	13-17.
Shelbyville	"	26-Oct. 1.
Cookeville	October	11-15.
Troy	"	11-14.
Memphis	"	11-15.
Gallatin	September	26-Oct. 1.
Rome	"	23-1.
McMinnville	October	19-21.
Dresden	"	27-29.
Franklin	"	4-7.
Lebanon	"	5-8.
Waynesboro	"	13-22.

TOWN.

NEW YORK.

Clarksville, Madison Co.	September	27, 28.
Byron and Bergen, at Byron, Genesee Co.	"	22, 23.
Camden, at Camden, Oneida Co.	October	6, 7.
Dansville, Livingston Co.	September	27, 28.
Canaseraga, at Dansville, Livingston Co.	"	27, 28.
Coventry, at Coventry, Chenango Co.	"	28, 29.
Dryden, at Dryden, Tompkins Co.	"	15.
Galen, at Clyde, Wayne Co.	"	20, 21.
Harpersville, at Harpersville, Broome Co.	"	23, 24.
Hardland, at Hardland Corners, Niagara Co.	"	16, 17.
Lebanon, at Smith's Valley, Chenango Co.	"	15-17.
Lodi, at Lodi, Seneca Co.	"	8, 9.
Nunda Union, at Nunda, Livingston Co.	"	39, 30.
Oxford, at Oxford, Chenango Co.	"	11-13.
Palmyra, at Palmyra, Wayne Co.	October	8, 9.
Sandy Creek, at Washingtonville, Oswego Co.	September	28, 29.
Skaneateles, at Skaneateles, Onondaga Co.	"	29.
Smithville, at Smithville, Chenango Co.	"	14, 15.
Smyrna, at Smyrna, Chenango Co.	"	13, 14.
Susquehanna Valley, at Unadilla, Otsego Co.	"	29, 30.
Oneawanda Valley, at Attica, Wyoming Co.	"	29, 28.
Union, at Adams, Jefferson Co.	"	14, 15.
Union, at Medina, Orleans Co.	"	14-16.
Union, at Trumansburgh, Tompkins Co.	"	23-30.
Yates, Yates Center, Orleans Co.	"	24, 25.

REVIEW OF THE MARKETS.

GENESEE FARMER OFFICE,  
ROCHESTER, N. Y., Aug. 22, 1859.

Most of the Grain Markets in this country are still in a very unsettled state. In some—New York especially—Flour and Wheat had declined recently to a low figure. The downward tendency has been again arrested by one of those fitful changes which have so frequently occurred during the present year, and a rapid advance of 25c to 50c per bbl. on Flour, and a corresponding rise in the price of Wheat, have taken place within a few days. That this advance will be long sustained, is scarcely probable. A reaction may be expected at an early period. The Wheat crop in America has been secured in good condition, the crop is reported good, and the yield abundant. It would seem, therefore, that moderately low prices must rule for the next year, unless an active export demand should arise, or the quantity produced should fall much below the estimated amount. In Eng-

land, the wheat has sustained considerable damage from heavy storms of rain and hail. The intense heat of the weather also has had a bad effect in ripening the grain prematurely. The same remarks will apply to France and some other parts of Continental Europe. Much grain of inferior quality will result from the large quantity bent down by the storms. Potatoes are badly diseased in many places, and the evil is extending itself. Nevertheless, with a large stock of old grain still on hand, and a fair prospect of an average crop, in regard to both quantity and quality, in some countries, and an abundance in others, prices had a downward tendency, rather than otherwise, at the latest dates. There is therefore scarcely a probability of a foreign demand, except at a low price. Farmers may feel reluctant to sell now, but a more favorable time may not soon occur. Coarse grain is much lower. Corn and Oats in fair request. Barley and Rye dull.

In the Provision Markets, Pork is much depressed. With a large stock on hand, holders are anxious to sell. The demand is quite moderate; and as the season is advanced, prices still tend downward. Beef is declining, irregular in price, and slow of sale. Other articles in this department are in fair request, at steady prices, with a moderate supply.

The supply of Beef Cattle is equal to the demand, but the quality is inferior. Prime grades are in request at full prices. Sheep and Lambs are in good supply at steady prices. Swine plenty and lower.

The demand for Wool is not active, but, as holders are firm, prices are well sustained. At the late fair in Cleveland, good samples met with a ready sale at high rates in comparison with those paid in many markets during the early part of the season.

**ROCHESTER MARKET.—Aug. 22.**

Transactions in produce are so limited that it is not easy to give exact quotations. Flour and Grain have declined materially since our last report. Potatoes are lower and supply good. In other matters, there is not much change.

WHEAT—Market inactive but steady. Superfine from red wheat, \$1.50@85; extra do. \$5.50; white wheat extra, \$6@6.50. GRAIN—White wheat, \$1.10@1.25; red do., 90c@1.10.—Corn, 6c. Oats, 5c. Barley, 5.5c@6.0c. Rye, 6c.

PROVISIONS—Mess Pork, \$18.50@19.00. Hams, 10c@11c. Shoulders, 7c@8c. Lard, 12c. Butter, 15c. Cheese, 9@10c. Eggs, 12. Potatoes, 37.5c@44c. Dressed hogs, 6.5c@7c per lb.

CATTLE MARKET—Beef Cattle, live weight, \$3@3.50. Calves \$3@4.50 per head. Sheep, \$2@4 per head. Lambs, \$1.25@2.25 each.

WOOL—None offering. It is worth 35c@50c per lb.

**NEW YORK MARKET.—Aug. 22.**

WHEAT AND MEAL—Moderate demand for Flour. Superfine State, \$4.2 @ \$4.50; extra do. \$4.50@4.75; Western superfine, \$4.2 @ \$4.5; extra do. \$4.50@4.75; Ohio round-top, \$4.90 @ \$5.10 for inferior, and \$5.15@5.31 for fair to good shipping brands. Southern Flour steady; Baltimore superfine, \$4.75@4.85; extra do. \$4.50@4.87.50; Brandywine, \$5.25@5.75; Georgetown, \$5.15@5.25; Petersburg city, \$5.50@5.7; Richmond city, \$5@5.75. Galego, \$5.75 Canadian, \$4.50@5.70 for the range. Rye flour steady at \$4.50@4.75 for fine and superfine. Corn meal firm; Jersey, \$3.90; Brandywine, \$4.1 @ \$4.15; punchions, \$1.9@1.9.50.

GRAIN—Wheat in fair demand with limited supply; new white, \$1.2 @ \$1.45, according to quality; Southern red, \$1.15@1.25; West'n red, \$1@1.19; Chicago spring 70c@75c. Rye firm at 75c@85c. Barley quiet at 50c@65c. Corn scarce; Western old mixed, 75c@90c; new do., 8c; Southern round yellow, 85c in store. Oats more active; Jersey, Delaware, and Pennsylvania, 33c@37c; State, Western, and Canadian, 28c@45c.

SEEDS—Clover, 8c@9.5c per cwt. Timothy, \$2 for mowed; \$2.37.50@2.75 for repked, per bushel. Red top, \$2.62.50@2.57.50 per five bushel bag.

PROVISIONS—Pork quiet; mess, \$13.50@14.00; thin do., \$12.75; clear Western, \$11@11.75; prime, \$9.75@10. Beef dull; country mess, \$7.75@8; country prime, \$5.50@5.75; western packed, \$8@11; extra, \$8, \$12@13. Beef h. a. s., \$15@18 for State and Western. Bacon quiet. Hams, pickled, 8.5c@9.5c; dry salted, 5c@5.5c; pickled shoulders, 6.5c@6.5c; dry salted, 6c@6.5c. Lard, 1.5c@1.1c. Butter—Ohio, 13 @17c; State, 15c @1c; Orange county, 22@25c. Cheese, 9.5c@9.5c.

CATTLE MARKET—Beef Cattle—low grades plenty and extremely dull; good and fair qualities sell at fair rates; first quality, 9.5c@10c; medium, 8c@9c; ordinary, 5c@7c; extra good, 10.5c. Veal Calves, 6.5c per lb. live weight. Sheep and Lambs—extra quality are worth 10c per lb. net; inferior, \$1.50@1.83 each. Hogs dull at 5c@7.5c per lb. live weight.

WOOL—American native to full-blood, 40c@55c; choice selected lots, 37c@62c

**PHILADELPHIA MARKET.—Aug. 20.**

FLOUR AND MEAL—Market dull. Old superfine, \$5; ground do from new wheat, \$3.50; extra do., \$5.75@6.25, more sellers than buyers at these rates. Rye Flour dull at per bushel. Corn Meal \$3.50 for Pennsylvania.

GRAIN—Wheat in moderate demand at \$1.3 @ \$1.32 for v and \$1.2 @ \$1.22 for red. Rye 75c for old Pennsylvania, and for new Delaware. Corn, 75c@75c for Delaware and 11.00 for new Southern. Oats, 37c@38c for old Pennsylvania; 32c@34 new Southern.

SEEDS—Clover, \$5.50@5.75; Flax seed, \$1.66; Tim \$2.50@2.75 per bushel.

PROVISIONS—City Mess Beef, \$16.50@17.50. Bacon—9.5c@9.5c; Shoulders, 7.5c@7.5c; Hams, 11c@12c; plain and 1. Lard dull at 10.5c@11.5c for prime lots, 12.5c@12.5c; Butter 11c@12c for prime lots. Cheese, 9c@9.5c. 1. 11c@12c per dozen.

CATTLE MARKET—The price of Beef Cattle tends upward; sales at 7.5c@10c per lb. for ordinary to good. Sheep and Lambs active at 7.5c@8.5c per lb. net. Cows, \$2 @ \$3, according to quality.

WOOL—Common to half-blood and fine fleece, prices from 35c to 45c@55c per lb.

**BUFFALO MARKET.—Aug. 22.**

FLOUR—Market firm, with fair demand. Sales of superfine State at \$3.75@4.75; extra do., \$4.50; superfine Western, \$4.50 extra do., \$4.75@5; double extras, \$5@5.37.50.

GRAIN—Wheat firm, with a moderate demand. Old stan spring, 60c; unsound winter, 75c; No. 1 new spring, 83c; Ohio, \$1.50@1.06; good to choice white Ohio and Kent \$1.15@1.25. Corn steady with a fair demand at 67@65c. Rye, 50c for new. Rye, 65c. Oats quiet at 31c@32c.

PROVISIONS—Mess Pork, \$14 @ \$15 for light and h. Shoulders, 8c. Hams, 9.5c@10c for plain, and 10c@10.5c sugar-cured. Lard, 11.5c@11.5c. Butter, 16c@18c. Ch 6.5c@7c.

**CHICAGO MARKET.—Aug. 19.**

FLOUR—With large receipts, holders are disposed to make some concession. Sales at \$3.00@4.25 for good brands of sp and \$5.25@5.50 for winter, in small lots to the trade.

GRAIN—Wheat—new winter not active; No. 1 white, \$1.05; No. 2 do., 80c in store; No. 1 red, 55c; No. 2 70c@75c; rejected winter 60c; No. 1 new spring, 73c@76c; No. 2 do., 65c@65c; rejected do., 52c@53c; dull. Corn, 6c@6c. No. 1, and 55c for No. 2 in store. Oats in good supply and low sales at 25c in store and 2.50c on board. Barley unsettled; N 40c. Rye steady; No. 1, 76c; No. 2, 5.5c. Beans dull at 40c.

SEEDS—Timothy in good demand at \$1.75@1.50 for new.

PROVISIONS—Mess Pork, \$15.75@16. Bacon firm; H 9.5c@10.5c; Shoulders, 7c@7.5c. Lard, 10.5c@11c. Built good request at 13c@14c for choice; common dull at 9c.

CHEESE quiet at 7c@8c for Ohio; 8c@10c for Hamburg. plenty and very dull at 7c. Potatoes firm at 5.00@6.0c.

Poultry—Spring Chickens, \$1.75@2 per doz. Live keys, 7c@8c per lb.

HIDES—Green city, 6.5c@7c; do. country, 7.5c; salt, 8.5c@9c flint, 15c@17c.

CATTLE MARKET—Beef Cattle—Extra quality, \$2.7 @ \$3; common to medium, \$1.75@2.50. Sheep—first quality, \$3, \$3.75. Fat Hogs dull at \$5.25 each.

WOOL—Market firm at 35c@45c for common to full blood.

**CINCINNATI MARKET.—Aug. 20.**

FLOUR—Market firm at \$4.60 for superfine, and \$5 for extra closing without activity.

GRAIN—Prime white wheat, \$1@1.05; choice white, for \$1.15@1.10@1.12; prime red, 9c; common do., 85c. Corn firm at 8c for mixed; 82c@85c for prime white. Rye steady 72c@73c. Barley, 58c@60c. Oats dull at 40c@42c.

SEEDS—An active speculative demand. Clover, \$5.60. Oats, \$2.25@2.50. Flax, \$1.10.

PROVISIONS—Mess Pork, \$14.25@14.50. Bacon—sides, 9.5c; shoulders, 6c@7c; hams, 9.5c@10.5c for common, 11.5c for sugar-cured. Lard, 10.5c@11.5c. Butter—Choice W. Corn Reserve, 16c@17c; prime Ohio, 14c@16c. Cheese, 8c for Western Reserve, and 10c for English dairy.

HIDES—Green, 7c; green salted, 7.5c@8c; dry salted, 1. 16c; flint, 16c@17c per lb.

HAY—Timothy, \$16@17 per ton for prime.

CATTLE MARKET—Beef Cattle, \$2.25@3.75 per cwt. \$5 supply equal to the demand. Sheep, \$1.5 @ \$3.5 each; sea hogs, \$5@5.50 per cwt. gross for good to prime fat; stock see \$10@12.5.

WOOL—Prices range from 30c to 50c, according to quality.

**TORONTO MARKET.—Aug. 22.**

FLOUR—Market somewhat better. Sales No. 1 superfine \$3.50; fancy, \$4.75; extra, \$5.

GRAIN—Wheat in active demand at \$1@1.13 for the range of qualities. Barley, 60c@62c. Peas, 50c@57c. Oats, 40c heavy new. Rye, 60c.

PROVISIONS—Bacon, 9c@9.5c. Hams, smoked, 10c@12c not smoked, 9c@9.5c. Butter—fresh not plentiful; it is worth \$20c; No. 1 tub, 13c; No. 2 do., 10c@11c per lb. Cheese

ood supply at 8½¢@10½¢ per lb. Potatoes abundant and good  
 40¢ per bushel. Dressed hogs, 6¢@6½¢ per lb.  
**CAT LE MARKE**—Market well supplied with beef; first  
 ass, \$4.50; second do, \$3.50@4. Calves, \$3@4. Sheep  
 fat at \$2@3 each. Lambs, \$1.25@1.75 each. Beef hides  
 ½¢ per lb. Calf skins, 10¢ per lb.  
**WOOL**—Steady at 27¢@28¢ per lb.  
**HAY**—Scarce. \$ 2@2½ per ton.  
**STRAW**—Scarce at \$12 per ton.

**LIVERPOOL MARKET.—Aug. 5.**

**FLOUR AND MEAL**—Western canal Flour, \$5.04@5.52;  
 Philadelphia, Baltimore, and Ohio, \$5.52@6.24; Canadian, \$5.76  
 @6.24; sour \$4.50@5.28. Corn Meal, \$4.32@4.56 per bbl.  
**GRAIN**—American white wheat, \$1.44@1.53; red do, \$1.26@  
 1.38; Canadian white, \$1.35@1.44; do, red, \$1.22@1.30. In-  
 dian corn—white, \$1.00@1.14; yellow, 56¢@90¢; mixed, 86¢@  
 90¢. All per bush. of 60 lbs.  
**WOOL**—Ranges in price from 12¢ to 40¢ per lb.

**LONDON MARKET.—Aug. 8.**

**FLOUR**—American sour, \$5.25@5.60; sweet, —,  
**GRAIN**—Wheat—American white, \$1.26@1.44; do, red, \$1.26  
 @1.38. Indian corn—white, 93¢@96¢; yellow, 96¢@99¢, per  
 40 lbs.  
**WOOL**—Market active and firm. Domestic ranges from 25¢  
 to 45¢ per lb.

**BRIGHTON CATTLE MARKET.—Aug. 18.**

At market, 1609 Cows, 490 Steers, 5000 Sheep and Lambs, 1000  
 hwe.  
**PRICES**—Market Beef—Extra, \$9.00@10.00; First quality,  
 \$7.75; Second \$6.75; Third, \$5.00. Working Oxen—\$100@  
 130. Milch Cows—\$39 @ \$40; Common, \$19 @ \$20. Veal  
 calves—\$3.00@3.50. Yearlings—\$9@12. Two Years old—\$17  
 @ \$21. Three Years old—\$25@32. Hides—7½¢@7¾¢ per lb.  
 Calf Skins—12¢@13¢ per lb. Tallow—7 @ 7½¢. Sheep and  
 Lambs—\$1.00@1.50; extra, \$2.00@3.00. Pelts—\$0.56@0.62.  
 Swine—Wholesale, 6½¢. Pigs, 6½¢. Retail, 6¢@5¢. Fat Hogs, 6½¢.  
**REMARKS**—The market to-day is overstocked, and poor qual-  
 ities are lower; extra beef remains about the same as last week.  
 Sheep and Lambs are poor, and sell at a low price. Swine dull.  
 Cows are sold here by the head, at prices per lb. equal to the  
 estimated weight of beef in the quarter, together with the fifth  
 quarter, or the hide and tallow, at the same price, at a shrinkage  
 from live weight agreed on by the parties—from 28 to 34 per cent.

**ADVERTISEMENTS.**

A FEW short advertisements of interest to farmers—and only  
 such—will be inserted in the *Genesee Farmer* for twenty cents  
 a line, or \$2 per square, each insertion, payable in advance. To  
 secure insertion, they should be sent in by the 15th of the previous  
 month. The *Farmer* has large lists of subscribers in every State  
 and Territory, and in all the British Provinces. (It has nearly  
 3000 subscribers in Canada West alone.) There is no better or  
 cheaper medium for advertising everything of general interest to  
 rural residents in all parts of the United States and Canada.

**THE NEW GRAPES.**

HAVING fine facilities for propagating, we are prepared to  
 furnish UNUSUALLY THIRTY AND VIGOROUS  
 PLANTS of all the new hardy Grapes, consisting in part of  
 Delaware,..... \$3 each. Concord,..... \$1 each.  
 Logan,..... 3 " Hartford Prolific,..... 1 "  
 Diana, ... 50 cts. 1 " To Kalon,..... 1 "  
 Rebecca,..... 1 " Union Village,..... 1 "  
 Garrigues,..... 1 "  
 For a more extended list, see Catalogue. These will be secure-  
 ly packed and delivered at the Express Office in Rochester, at  
 the above prices.

**STRAWBERRY PLANTS**

Can now be furnished, securely packed, for fall planting. A large  
 and complete assortment.  
**HOOKER**—The best for family use. Price \$2 per hundred;  
 \$15 per thousand.  
**WILSON'S ALBANY**—\$1.50 per 100; \$10 per 1000; besides  
 more than 25 other kinds.  
 OUR GROUNDS COMPRISE NEARLY TWO HUN-  
 DRED ACRES. We have constantly on hand, and are able to  
 supply, every variety of Nursery productions, of the most thrifty  
 growth. Send for a Descriptive Catalogue.

H. E. HOOKER & CO.,  
 Sept.—2t Commercial Nurseries, Rochester, N. Y.

**RUSSIA OR BASS MATS**—Selected expressly for budding  
 and tying. GUNNY BAGS, TWINES, HAY ROPE, &c.,  
 suitable for Nurserymen and Farmers, for sale in lots to suit, by  
 D. W. MANWARING, Importer,  
 Sept, 1859.—1y\* 243 Front Street, New York.

**ROCHESTER CENTRAL NURSERIES.**

THE subscriber takes pleasure in offering to the public, for the  
 coming fall trade, an unusually fine stock of Nursery Trees,  
 Plants, Vines, &c., consisting in part of  
**APPLES, PEARS, PEACHES, CHERRIES, PLUMS,  
 BLACKBERRIES, RASPBERRIES, STRAWBERRIES,  
 CURRANTS, GOOSEBERRIES,  
 ORNAMENTAL TREES, SHRUBS, ROSES,  
 CLIMBING VINES,  
 APPLE and CHERRY STOCKS,**  
 and a great variety of other stuff.

**DWARF PEAR TREES.**—Our stock of Dwarf Pears com-  
 prises all the most popular varieties, and the specimens are of re-  
 markably fine growth.

**PEACH TREES.**—A large assortment—healthy and vigorous.  
**APPLE STOCKS.**—100,000, two years old. Strong.  
**GRAPE VINES.**—Strong two years old plants of Isabella,  
 Catawba, and Clinton; fine one year old plants of the most valu-  
 ble new hardy native sorts, such as *Concord, Diana, Delaware,  
 Rebecca, Northern Muscadine, Union Village, To Kalon,  
 Hartford Prolific, Raabe, Emily, Clara, Logan, Garrigues,  
 King, &c., &c.*

**REBECCA GRAPE VINES.**—We can furnish a limited num-  
 ber of extra strong one year old vines of this sort, at \$2 each.  
 Very fine vines, not so strong as the preceding, but larger than  
 they have usually been sent out, at \$1 each. Delaware and Logan  
 vines, \$3 each. All others mentioned above, \$1 each.

**FOREIGN VINES.**—Strong plants of the most reliable sorts  
 for the cold vinery, at 50 cents each, or \$5 per dozen.  
 Orders or correspondence should be addressed to the subscriber.  
 Catalogues sent to all applicants retaining a stamp for prepay-  
 ment of postage. [1] C. W. SEELYE, Rochester, N. Y.

**FOREIGN GRAPES FOR VINERIES**

**ELLWANGER & BARRY**

HAVE now ready for sending out, a fine stock of Grapes for  
 Vineries—strong, healthy vines, in pots—raised from eyes.  
 They mainly consist of the leading kinds, but include a moderate  
 supply of the most celebrated new varieties, such as

- MUSCAT HAMBURG,
- STOCKWOOD GOLDEN HAMBURG,
- LADY DOWNS,
- CANADIAN CHIEF,
- MUSCAT ST. LAURENT,
- MUSCAT OTTONEL, &c., &c.

Plants carefully packed and forwarded at any moment.  
 For full and detailed information respecting the stock, prices,  
 terms, &c., we refer to the following catalogues, which will be sent  
 gratis, prepaid, to all who inclose one stamp for each:  
 No. 1—Descriptive Catalogue of Fruits.  
 No. 2—Descriptive Catalogue of Ornamental Trees, Shrubs, Roses  
 &c., &c.  
 No. 3—Descriptive Catalogue of Dahlias, Greenhouse and Bed-  
 ding Plants, &c.  
 No. 4—Wholesale Catalogue for Nurserymen, Dealers, and others  
 who purchase large quantities.

ELLWANGER & BARRY,  
 Sept, 1859.—1t Mount Hope Nurseries, Rochester, N. Y.

**Iron Finger Nails for Husking Corn.**

GOULD'S CELEBRATED HUSKING THIMBLE is ac-  
 knowledge the best invention of the age for protecting the  
 fingers and facilitating the operation of Husking Corn.

The following letters are samples of thousands now in our pos-  
 session. Read them.

**THE HUSKING THIMBLES CAN'T BE BEAT.**

TIRO, Crawford Co., Ohio, Nov. 8th, 1858.  
**MESSES. GOULD & Co.:** Inclosed I send you \$1 for six pairs of  
 your husking thimbles. I bought a pair of you last fall, and have  
 used them for husking ever since. They outwear anything of the  
 kind I have ever seen, and for husking they can't be beat.  
 Respectfully yours, Wm. Morrow.

**THEY ARE BETTER THAN ANY MACHINE.**

HILLSBORO, Montgomery Co., Ill., Nov. 27, 1858.  
**J. H. GOULD & Co., Alliance, Ohio—Sirs:** Inclosed I send you  
 one dollar for six sets of your Husking Thimbles, of the sizes re-  
 presented by the measures inclosed. I used a pair of them last  
 year. I prefer them to all the great, small, or little joint Corn-  
 Huskers. Yours truly, A. H. BELL.

We send by mail, post-paid, six sets of these Thimbles for \$1, to  
 any post office address in the United States; by Express, fifty sets  
 for \$5. Circulars for one stamp. Agents wanted. Address  
 Sept.—3t J. H. GOULD & CO., Alliance, Ohio.

**FOR SALE.**—Wild Turkeys domesticated. Also, large breed  
 of common Turkeys. Also, a large variety of Fancy Poul-  
 try, all full-blooded. B. SMITH, Darien Depot, Conn.

## FRUIT AND ORNAMENTAL TREES FOR THE AUTUMN OF 1859.

ELLWANGER & BARRY have the pleasure of announcing, as usual, an immense stock of Fruit and Ornamental Trees, Shrubs, and Plants, for the ensuing Fall trade, and solicit early orders. In every department the stock is of the finest description, vigorous, healthy, and beautiful. The utmost pains have been taken by the proprietors personally, and their assistants, to insure accuracy; and to this point, and the general excellence of the stock, E. & B. solicit especial attention. Prices moderate and terms liberal, as will be seen by reference to the Priced Catalogues named below. Parties interested are invited to examine the stock in the grounds, and consult the Priced Catalogues, before purchasing elsewhere. The

### FRUIT DEPARTMENT

Embraces STANDARD FRUIT TREES for Orchards, embracing all the most esteemed and valuable sorts for different parts of the country.

**DWARF TREES**, for Gardens—All the best varieties adapted to garden culture in this form.

**GRAPES**—Hardy varieties, including all the new ones worthy of cultivation. (See Special Advertisement.)

**GRAPES**—Foreign, for vinteries, including the Muscat, Hambro', Stockwood Golden Hamburg, Lady Downs, and other new celebrated sorts.

**STRAWBERRIES**—All the American and Foreign varieties of proved excellence in this country.

**BLACKBERRIES**—Dorchester and New Rochelle or Lawton; of the latter, a great stock of strong plants.

**GOOSEBERRIES**—The best English sorts, and a great stock of the American Seedling, that bears wonderful crops and is exempt from mildew.

**CURRENTS**—White Grape, (the largest and best white Current) Cherry, Victoria, &c., &c.

**ENGLISH FILBERTS and SPANISH CHESTNUTS.**

**FIGS**—Several fine sorts.

**RHUBARB**—Linnaeus, Giant Victoria, and several new and fine English sorts.

### Fruit Trees for Orchard Houses.

**DWARF MAIDEN TREES**, of Apple, Pear, Plum, Cherry, Apricot, &c., of the newest sorts for pot culture or orchard houses. Suitable selections made by E. & B., if desired.

### ORNAMENTAL DEPARTMENT.

The stock in this department is the largest and best we have ever before offered, and embraces everything desirable, new and old, among

**DECIDUOUS ORNAMENTAL TREES**, **WEeping TREES**, **EVERGREEN TREES**, **FLOWERING SHRUBS**, **CLIMBING SHRUBS**, **ROSES**, **PEONIES**, **DAHLIAS**, **PHLOXES**, and all the most Ornamental Border Plants.

**BULBOUS ROOTS**—Including Hyacinths, Tulips, Narcissus, Crocus, Lilies, Gladiolus, &c., &c.

### Stocks for Nurseriesmen.

**PEAR SEEDLINGS**, our own growth, 1 and 2 years.

**MAZZARD CHERRY**, 1 year.

**MAHALEB** do, 1 and 2 years.

**QUINCE STOCKS**, 1 year from cuttings.

For full and detailed information respecting the stock, prices, terms, &c., we refer to the following Catalogues, which will be sent gratis, prepaid, to all who inclose one stamp for each:

No. 1.—Descriptive Catalogue of Fruits.

No. 2.—Descriptive Catalogue of Ornamental Trees, Shrubs, Roses &c., &c.

No. 3.—Descriptive Catalogue of Dahlias, Green-House and Bedding Plants, &c.

No. 4.—Wholesale Catalogue for Nurseriesmen, Dealers, and others who purchase in large quantities.

ELLWANGER & BARRY,

Sept., 1859.—1t Mount Hope Nurseries, Rochester, N. Y.

## SUGAR AND MOLASSES

From the Sorgho and Imphee.

THE best directions to sugar makers, and all who grow or use these new Sugar Canes, may be found in

**OLCOTT'S SORGHO AND IMPHÉE,**

A new edition of which is just published, with a supplement, giving new and valuable statistics and experiments by J. S. LOVERING in 1858.

Price..... \$1.00.

Sent by mail, prepaid, on receipt of price.

☞ A Catalogue of one hundred Agricultural Books sent free to any address. A. O. MOORE & CO.,

Agricultural Book Publishers,

September, 1859—1t 149 Fulton street, New York.

**SOMBRERO GUANO**—80 per cent. Bone Phosphate of Lime. Try five bags this fall on an acre of your poorest land, or Winter Wheat. Send or write for a circular and certificate from those who have used it. Sold at \$30 per ton 2000 lbs.—14 bags to ton.

WOOD & GRANT, New York.

Sept.—2t\* W. M. A. MARTIN & CO., New York.

## S. MOULSON

OFFERS, AT THE

## OLD ROCHESTER NURSERIES, AT ROCHESTER, N. Y.,

AN extensive and healthy stock of Fruit and Ornamental Trees and Shrubbery, comprising

APPLES, standard and dwarf;

PEARS do. do. including some extra fine and large, suitable for immediate fruiting;

PEACHES;

PLUMS;

CHERRIES, dwarf and standards;

QUINCES;

NUTS, including Walnuts in two varieties, Chestnuts and Filberts in several varieties;

GRAPES—Foreign varieties for glass structures, and hardy varieties for out-door culture, including the especially new and hardy varieties Delaware and Rebecca;

BLACKBERRIES and RASPBERRIES;

GOOSEBERRIES, in many varieties, inclusive of the American varieties, which never mildew, and are particularly productive;

CURRENTS, in many varieties, including Attractor, a fine white, and La Versailles and Cherry, large reds;

RHUBARB—Giant, Victoria, and Linnaeus.

The Ornamental Department contains, among

DECIDUOUS TREES, a fine collection of Elms, Maples, Magnolias, Thorns, Mountain Ash, &c., &c.; and among

EVERGREEN TREES, a large stock of Spruces, Cedars, Firs, Pines, Arbor Vitæ, &c.

The DECIDUOUS SHRUBBERY has among it every desirable hardy item, inclusive of Weigela, Spiræa, Deutzia, &c., also

### ROSES.

Among BULBOUS and TUBEROUS ROOTS, are the Japan Lilies in four varieties, Dahlias, Tulips, Hyacinths, Crocuses, &c.

An Inventory Catalogue of all the stock (except items of such ages as are usually purchased by nurserymen only) sent gratis to all applicants forwarding a stamp for prepayment. Sept.—1t

## GENESEE VALLEY NURSERIES, ROCHESTER, N. Y.

WE solicit the attention of those who are about to plant, to our extensive stock of Standard and Dwarf Apples, Pears, Cherries, and Plums; of Standard Peaches, Nectarines, Grapes, Currants, Gooseberries, Raspberries, Strawberries, Blackberries, Miscellaneous Fruits, Esculent Roots, Fruit Tree Stocks, &c., &c.

In the Ornamental Department, to our Roses of different classes, Deciduous and Evergreen Trees and Shrubs, Climbing Plants, Pæonias, Phloxes and other Herbaceous Plants, Bulbous Flower Roots, Plants for Hedges and Screens, Greenhouse and Hothouse Plants, Bedding Plants, such as Dahlias, Verbenas, Fuchsias, Geraniums, &c., &c.

All persons who may think fit to give us an order, can depend upon being honorably dealt with, and that no pains will be spared to give entire satisfaction to the purchaser.

We would here mention that our Nurseries contain at the present time THREE HUNDRED ACRES, which will enable us to furnish the entire orders of our customers.

No. 1.—Descriptive Catalogue of Fruits.

No. 2.—Descriptive Catalogue of Ornamental Trees, Shrubs, Roses, &c.

No. 3.—Descriptive Catalogue of Dahlias, Verbenas, Greenhouse Plants, &c.

No. 4.—Wholesale Catalogue or Trade List.

No. 5.—Descriptive Catalogue of Flowering Bulbs.

All communications promptly attended to.

Address A. FROST & CO.,

September, 1859.—1t Rochester, N. Y.

### TO NURSERYMEN AND FLORISTS.

## LOUIS LEROY,

OF THE

## GRAND JARDIN NURSERIES

At Angers, France,

DEGS to announce that he is prepared to fill orders for Fruit, Forest, and Ornamental Trees and Shrubs, &c. Catalogues of the prices current, embracing shipping charges and all other needful information, may be had on application to

PAUL BOSSANGE, 59 Liberty street, New York.

**\$300,000 PLUM TREES.**—Messrs. C. REAGLES & SON solicit the attention of Nurserymen, Planters, and Dealers in Trees, to their immense stock of Plum Trees, by far the largest ever offered in the United States.

One year, 3 to 5 feet,..... \$25 per 100; \$225 per 1000.

Two years, 4 to 6 feet,..... 30 " 250 "

Three to four years, 6 to 8 ft., 45 " 400 "

N. B.—These trees are budded on plum stocks. Send for a Descriptive Catalogue.

C. REAGLES & SON,

Sept., 1859.—2t Union Nurseries, Schenectady, N. Y.

**P R A T T ' S**  
Patent  
**SELF-VENTILATING**  
Covered Milk-Pan.



This is an enclosed milk-pan, so arranged as to secure the supply and circulation of air required for the separation and rising of the cream. By reference to the engraving, it will be seen that the pan has a cover; around the lower rim of this cover are several minute perforations for the air to enter, and at the top of the chimney, (as it may be called,) which rises from the center of the cover, is another series of perforations for the air to escape. When new milk is placed in this pan, the colder external air presses in through the lower range of perforations in the cover, and forces the warm air out through the perforations above, thus producing the required circulation. This circulation of air will diminish, as the cooling process goes on, but not cease; for, gases being evolved in the production of cream, their lightness will still cause the air to draw in through the lower perforations, and so continue the process of ventilation.

The value of this new milk-pan will be at once apparent. Dairymen often have great difficulty in protecting their open pans from gnats, flies, rats, mice, snails, lizzards, &c., &c.; and they can not cover them, because, if the air is shut out, the cream will not separate from the milk.

But not alone to dairymen is the invention of value. In every family milk is used; and with one or more of these self-ventilating pans, the best condition for raising cream is secured. Covered, and set upon a shelf, or the cellar floor the pan is entirely free from molestation. During the time that the patent was pending, in 1853, this Milk-pan was exhibited at the U. S. Agricultural Fair, held at Richmond, Va.; at the Pennsylvania State Fair, held at Pittsburgh; and at the New Hampshire State Fair, held at Dover. In each case a DIPLOMA was awarded.

**ARTHUR, BURNHAM, AND GILROY,**

SOLE MANUFACTURERS,

**117 and 119 South Tenth St., Philadelphia, Pa.**

Also, Manufacturers, under the Patent, of "THE OLD DOMINION" COFFEE POT, and ARTHUR'S SELF-SEALING FRUIT-CANS and JARS. August, 1859.—21

**POUGHKEEPSIE SMALL FRUIT NURSERY.**

**STRAWBERRY PLANTS.**

WILSON'S ALBANY, HOOKER, PEABODY, McAVOY'S SUPERIOR, and all the leading choice varieties, at 50 cts. per dozen; \$1.50 per hundred; \$10 per thousand. HOVEY, and all the old favorite varieties, at \$1 per hundred; \$8 per thousand.

TRIOMPHE DE GAND, TROLLOP'S VICTORIA, VICOMTE HENRI-CARTE DE THURY, OMER PACHA, SIR HARRY, SWAINSTONE SEEDLING, &c., the choicest foreign varieties, at 75 cts. per dozen; \$2.50 per hundred.

The undersigned devoting his personal attention to the cultivation of the above, purchasers may rely on plants being vigorous and true to name.

Plants packed with great care for any distance.

Send for a catalogue. EDWIN MARSHALL,

au2t Poughkeepsie, N. Y.

Also a fine stock of LINNÆUS RHUBARB for sale.

**MELODEONS**—THE "TREBLE FORTE" STOP.—A new and admirable improvement has just been effected in the Melodeons of MASON & HAMLIN. It consists in the "treble forte" stop, or a stop by means of which the treble part of the instrument may be increased in power, while the bass remains subdued. The advantage of this stop is found in the performance of solo passages where it is desirable that prominence should be given to the treble notes. The house of MASON & HAMLIN has received, since 1856, for first Melodeons and Harmoniums, no less than TWENTY Gold and Silver Medals and Diplomas from various State Fairs and Societies throughout the country.

Melodeons, from..... \$60 to \$200

Harmoniums, from..... \$200 to \$500

Descriptive Catalogues sent on application

MASON & HAMLIN, Boston, Mass., or

au3t CHICKERING & SONS, 694 Broadway, New York.

**Lawton Blackberry Plants.**

Address **WILLIAM LAWTON**, New Rochelle, N. Y.

au3t **Circulars Promptly Forwarded.**

**FARMS FOR SALE.**—I offer for sale 1550 acres of rich and productive land, upon navigable waters, in Stafford county, Va., which would make four good farms, and would be sold at the following prices: Farm No. 1, at \$16 per acre; No. 2, at \$12; No. 3, at \$7.50; No. 4, at \$5. For information, address me at Acookeek P. O., Stafford Co., Va. jy3t **JOHN MINOR**, M. D.

**"EVERY BODY SHOULD HAVE A COPY."**

THE  
**Rural Annual and Horticultural Directory**  
FOR 1859.

THIS work was started in 1856, by the publisher of the *Genesee Farmer*. Its great success affords conclusive evidence, not only of its intrinsic merit, but of its adaptability to the wants of the rural population. A new volume, prepared with great care and replete with new and valuable matter, is issued each year. The fourth volume, for 1859, has appeared, and is a book which cannot be too highly recommended—alike beautiful, interesting, and useful. The articles are all written for its pages by men of experience. It is illustrated with seventy-five appropriate and beautiful engravings.

Among its contents may be mentioned able treatises on Under-draining Orchards and Gardens, on the Fruits of the Ohio Valley, on Fruit Culture in the West, on the Cultivation of Fruit Trees in Pots under Glass, on Training Wall and Espalier Trees, on the Cultivation of Bulbous Plants, on the Management of Ducks, Geese, and Swans, on British Breeds of Cattle, on the Cultivation of Ruta Bagas, &c., &c., and a List of Fruits recommended by the American Pomological Society at its last session.

The work will be found invaluable to the Fruit Grower, and useful to every one interested in Rural affairs.

It is furnished at the low price of Twenty-five Cents,—while it contains as much matter as many dollar books. *Every one who owns a rod of ground should have it.* It is sent pre-paid by mail to any address on the receipt of twenty-five cents in coin or postage stamps. Address **JOSEPH HARRIS,**

Publisher and Proprietor  
Of the *Genesee Farmer and Rural Annual*,  
Rochester, N. Y.

\* The back numbers, for 1856, 1857, and 1858, can be furnished at twenty-five cents each, postage paid.

**U. S. TENT AND FLAG MANUFACTORY.**  
No. 12 Buffalo Street, Rochester, N. Y.

TENTS to rent of the following sizes, suitable for the purposes designated:

For Agricultural Fairs, Conferences, Political or other large Gatherings.

80 ft. by 110 ft.....	86 ft. diameter.
60 ft. by 90 ft.....	70 ft. "
50 ft. by 80 ft.....	60 ft. "
15 ft. by 20 ft. fancy.....	50 ft. "

For Camp Meetings, Military Encampments, Pic Nics, Fishing Excursions, &c.

24 ft. by 30 ft.....	12 ft. by 17 ft.
16 ft. by 24 ft.....	9 ft. by 12 ft.

Flags furnished with Tents, when required. Parties wishing to rent, will please address the proprietor, stating what the Tents are to be used for. Also the facilities for transportation. Address **JAMES FIELD**, Box 701, June, 1859—41\* Rochester, N. Y.

**BUCK-EYE MOWER,**  
**Westinghouse Thresher & Separator,**  
**EXCELSIOR FANNING MILL.**

For Sale by **A. LONGETT**, 34 Cliff St., New York.  
July, 1859.—3t

**ALBANY TILE WORKS**—CORNER CLINTON AVENUE AND KNOX STREET, ALBANY, N. Y.—The subscribers, being the most extensive manufacturers of DRAINING TILE in the United States, have on hand, in large or small quantities, for Land Draining, ROUND, SOLE, and HORSE-SHOE TILE, warranted superior to any made in this country, hard-burned, and over one foot in length. Orders solicited. Price List sent on application.  
May, 1859.—6t C. & W. McCAMMON, Albany, N. Y.

**FARM FOR SALE.**—A farm of one hundred acres, within half a mile of the village of Middleport, Niagara Co., N. Y., is offered for sale on reasonable terms. It is well supplied with barns, sheds, orchards, and all necessary improvements, and is well watered. About 20 acres are good wood land, the rest under cultivation. Inquire of, or address **THOS. F. SMITH**, July, 1859.—3t\* Middleport, N. Y.

**PURE CHESTER COUNTY PIGS**—From choice stock of Thos. Wood, of Penningtonville, Chester Co., Pa. for sale by August, 1859.—21\* **D. CUTTS NYE**, Lexington, Mass.



**NEW HARDY GRAPES.**

**I**N addition to a very large stock of the old popular varieties, such as Isabella, Catawba, Clinton, &c., we have a moderate supply of the following. The plants are all strong and well rooted. Prices will be furnished on application.

Concord,	To Kalon,	Massachusetts White,
Diana,	Garrigue,	Perkins,
Delaware,	Mambatan,	Winslow,
Rebecca,	Franklin,	Canby's August (sup-
Hartford Prolific,	Franklin,	posed same as York
Northern Muscadine,	North America,	Madeira and Hyde's
Monteith,	Cassidy,	Eliza),
Anna,	Lineoli,	Venango (or Miner's
Clara,	Wright's Isabella,	Seedling),
Emily,	Union Village,	Black German, or Ma-
Ranley,	Mammoth Catawba,	riion Port of Ohio.
Brinckle,	Hensel's Early,	

Many of these we have not yet fruited, and therefore can say nothing of their quality.

For full and detailed information respecting the stock, prices, terms, &c., we refer to the following catalogues, which will be sent gratis, pre-paid, to all who inclose one stamp for each:

- No. 1.—Descriptive Catalogue of Fruits.
  - No. 2.—Descriptive Catalogue of Ornamental Trees, Shrubs, Roses &c., &c.
  - No. 3.—Descriptive Catalogue of Dahlias, Green-House and Bedding Plants, &c.
  - No. 4.—Wholesale Catalogue for Nurserymen, Dealers, and others who purchase in large quantities.
- ELLWANGER & BARRY,  
Sept., 1859.—14. Mount Hope Nurseries, Rochester, N. Y.

**IMPORTED AND PURE BRED STOCK.**

Moretton Lodge Farm, Guelph, Canada West.

MR. FRED. WM. STONE HAS ARRANGED FOR HIS THIRD ANNUAL AUCTION SALE OF IMPORTED AND PURE BRED

**SHORT-HORN CATTLE, COTSWOLD AND SOUTH-DOWN RAMS, &c., Berkshire and Small White Breed of Pigs.**

To be held on Wednesday, the 7th day of September, 1859.

**T**HE Proprietor has imported from the best Herds and Flocks in England, animals of the best Blood and Form, regardless of expense, and hopes to be favored by a numerous company. Business to begin a one o'clock. Catalogues will be ready by the 24th of August, and to be had on application.

TERMS—Under \$20, cash; \$20 to \$50, three months; over \$50, six months credit, with interest, on approved endorsed notes, if required, or a discount of 10 per cent. for cash over \$20.

Guelph is on the Grand Trunk Railway. The Guelph and Galt Railway connects with the Main Line of the Great Western at Harrisburg. [sept1] W. S. G. KNOWLES, Auctioneer.

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**T**HE Proprietor of this establishment offers for sale a large amount of well-grown Fruit Trees, consisting of Apples, Pears, Cherries, Plums, Peaches, Grapes (native and foreign), Gooseberries, Raspberries, Currants, &c.

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Angers Quince Stocks at \$12 per thousand. Price Catalogues sent on application. Address GODFREY ZIMMERMAN, September, 1859.—24 Buffalo, N. Y.

**STOCKS FOR FRUIT TREES.**

**T**HE Subscribers desire to call the attention of the trade to their large assortment of STOCKS for next spring's planting, which are this year remarkably fine and healthy.

QUINCE STOCKS—Angers and Fontenay—first choice. MAZZARD CHERRY SEEDLINGS—extra fine. APPLE SEEDLINGS—One and two years old. The above can be furnished in large or small quantities. H. E. HOOKER & CO., Sept.—24 Commercial Nurseries, Rochester, N. Y.

**VIRGINIA FARM LANDS.**—There are desirable FARMS for sale at \$10 to \$20 per acre, within a few hours' ride from Washington City. For any desired information, address L. H. REYNOLDS, Maple Valley, Sept.—31 Prince William Co., Va.

**W**E would take some Western Land in exchange for a part of our stock of Fruit Trees this fall. Address sept\* J. D. CONKLIN, Locke, Cayuga Co., N. Y.

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**THE GENESEE FARMER, A MONTHLY JOURNAL OF AGRICULTURE AND HORTICULTURE. IS PUBLISHED AT ROCHESTER, N. Y., BY JOSEPH HARRIS.**

It is the cheapest agricultural paper in the world, and has attained an unrivalled circulation.

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# The Genesee Farmer

THE PRACTICAL AND SCIENTIFIC FARMERS OWN PAPER.

**TRANSACTIONS OF THE N. Y. STATE AG. SOCIETY.**

WE are indebted to the Secretary, B. P. JOHNSON, Esq., for the eighteenth volume (1858) of the *Transactions of the New York State Agricultural Society*. We regard it as one of the most interesting and useful volumes yet published by the Society. We make a few extracts.

**THOROUGH-BRED STOCK BECOMING MORE GENERAL.**—In alluding to the Fair held at Syracuse, the Secretary well observes—

“The State of New York had full reward for its liberal policy toward agriculture, in the collection to be found at Syracuse, on that day. In the earlier years of the Society, the Fair was indebted to a few men—men of real enterprise—men who knew in advance the directions which the good judgment of the farmers in our State would take; it was the debtor of these gentlemen for the fine varieties of the very best breeds of stock; there were fine herds and few owners. But in this Fair of 1858, a nobler result was seen. There were the same superb cattle, the same choice varieties; *but there were many owners.* It was the proof of the gratifying fact, that the farmers of the State had *learned the value of the best.*”

**GRADE STOCK.**—“Another feature most gratifying was the perfection of the grade cattle on exhibition. Of these, many of them might challenge competition in all the points constituting a good animal, and these of various crosses from the Short Horns, Devons, and Herefords. When it is known that the stock represented about one-half of the farming counties in our State, it will be seen that the distribution of improved stock is widely extended; and the increase of wealth to the farmers, by this stock alone, amounts to an immense sum.”

**FAT CATTLE.**—“The fat cattle were of extraordinary excellence, showing that we have arrived at great perfection in this direction. Small bone, aptness to fatten, meat of the best quality, and laid on in the right place, so that the excellent judges in this class declared they had never seen the cattle excelled, and never had found such difficulty in deciding the prize animals.”

**IMPROVED BREEDS OF CATTLE DO NOT DETERIORATE IN THIS COUNTRY.**—In proof of this, the following fact is mentioned:

“Upon the ground were several imported animals, of very great merit and renown; and yet we

heard from judges well prepared to give an opinion, that no finer animals could be found than among those bred on our own soil and by our own breeders, fully sustaining the character of the choice animals from which they were descended.”

**THE ANNUAL FAIRS OF THE SOCIETY ESPECIALLY BENEFICIAL TO THE LOCALITIES IN WHICH THEY ARE HELD.**—In moving a vote of thanks to the Hon. JOSEPH R. WILLIAMS, for his interesting address at Syracuse, GEORGE GEDDES said:

“I rise to move a vote of thanks to the speaker; but before you put the question, allow me, as one of the farmers of this county of Onondaga, in behalf of my brethren, to return our thanks to your Society for this your third exhibition among us. We thank you for giving us the lessons that must be drawn from placing side by side, for comparison, the finest specimens of all the varieties of domestic animals and of the products of the garden and field, as well as for this magnificent display of farm implements which we see before us. This is a State Society, and I know is the instructor of the whole State; but particularly is it the instructor of the localities that are so fortunate as to again and again witness the great annual shows. Allow me to add that your lessons, in Onondaga, have not been entirely lost; the improvement here is manifest in every branch of farming since you held your Fair among us. I can assure the orator, to whom we are about to return our thanks, that the standard he has just held up before us, as showing what a farmer's life should be, if not entirely arrived at here, has nevertheless been approximated. If he will do me the pleasure of riding in my company over these majestic hills and beautiful valleys, I will show him many specimens of high and judicious cultivation, and many a pleasant homestead surrounded with fruits and flowers. And within these houses, on the center tables he shall find elegant and useful books, with the newspapers of the day, and on the shelves many of the standard authors, and in not a few instances some of the ancient classics; and, sir, he will find that the women that he will meet there, will acquit themselves with credit, either in the parlor or the dairy.”

**AGRICULTURAL DISCUSSIONS.**—Meetings were held in the evenings, during the Fair at Syracuse, for the discussion of practical subjects. We have before alluded to them, but a few extracts from the full report in the *Transactions* will be interesting. Many

of the most experienced farmers in the State are present at these annual gatherings, and we trust such meetings for discussions will always be held in future, — and we are glad to know that such is the intention of the Society.

*Grow more Root Crops.* — “The Hon. A. B. CONGER, President of the Society, made an earnest address to the farmers present to abandon the exhaustive process and adopt the root cultivation. He believed in the English dogma, that without roots for food, there must be few cattle; and that with few cattle there must be little manure; and that with little manure there must be light crops.

SOLON ROBINSON observed, in regard to feeding root crops, that the bad taste imparted to the butter by feeding turnips, could be removed by putting a piece of charcoal into the milk before churning, which would disinfect it thoroughly.”

*Husking Corn.* — “SOLON ROBINSON observed that the most economical process of husking corn is practiced at the south, where the corn is simply plucked and piled in covered stacks, leaving the husking for the less hurried portion of the year, the fall and winter months.”

*Cultivation of Barley.* — T. C. PETERS, of Genesee county, inquired whether barley was deteriorating and likely to run out, as wheat had done in some portions of the State.

“MR. GEO. CLARKE, of Otsego county, said that barley is an exhausting crop; the first and second years are generally good, but after that it fails.

“MR. DANFORTH, of Cayuga, said he had raised sixty bushels to the acre, but last year his crop was not over ten bushels. The crop in his town was an entire failure.

“THE HON. GEO. GEDDES, of Fairmount, said he had had considerable experience in raising barley. It is a sensitive crop. It wants heavy soil, with a cold spring. This year has been the most successful for the farmers of this county he had ever known. The crops are all good. Barley is a very uncertain crop. He did not know that barley was an exhausting crop; had not experimented on the matter.

“DR. WELLS, of Seneca county, said that large crops had been raised in his county this year. The northern part of the county is heavy clay soil.

“JUDGE ENOS, of Madison county, said that the barley crop in that county had been very poor for the last two or three years. He had raised fifty-six bushels of *Hess* barley to the acre, but now he got not over ten to fifteen bushels. It seems to have run out—does not even grow where the soil is good. Corn is a good crop to precede barley.

“MR. HESS, after whom the *Hess* barley is named, said his crop was poor this year, and he should give up raising it.

“MR. BROWN, of Wayne, thought that barley should not succeed barley. His soil is gravelly loam.

“SQUIRE M. BROWN, of Elbridge, said he had good success in raising barley until within the last two years. The last year his crop was poor. He always sowed barley after corn. This year his barley weighs forty-six; it has weighed fifty-three. He sows plaster and salt on his corn, and cuts his

barley rather green. Salt is good to use in manure. There was no weevil in his barley.

“W. A. MILLS, of Livingston county, said that barley had always been a crop with him. Three years ago he raised sixty bushels to the acre. Last year his crop was a failure—he only had eighteen bushels to the acre. The summer was, he thought, too hot for barley. He sows two bushels to the acre. His barley was raised on bottom land.

“MR. C. WINEGAR, of Cayuga, sowed twenty acres last year, and got only fifteen bushels per acre. With him, in ordinary seasons, the crop never fails a good yield if the ground is in good order. His soil is loam. Prefers the four-rowed sort. Has raised good crops on corn ground. Seeds wheat land to a small sort of clover, and mows clover two years, then corn, wheat, and barley.

“HON. GEORGE GEDDES—Our common rotation is two years grass and two years grain.

“MR. DUNNING, of Cayuga, prefers two-rowed barley. It yields ten bushels more per acre than four-rowed. Our rotation is to manure sod and turn it under, and plant corn, which averages fifty bushels per acre of the eight to twelve-rowed variety. We depend much on the barley crop. It failed last year, on account of the wet season. In former years the crop averaged forty bushels; the last crop only twenty bushels, and we found maggots in the straw, and therefore do not use it for feed. We sow the spring variety of barley.

“GEORGE CLARKE, of Otsego, has always found barley straw good feed.

“MR. DANFORTH, of Cayuga—We can't grow good barley upon clay soil.

“HON. GEO. GEDDES, of Onondaga—Yet with us we use light soil for oats, and the most clayey land for barley.

“MR. BAILEY, Kent county, Michigan—I grow barley on new land, and my crops have been eight, fifteen, and thirty bushels per acre. The two-rowed is best, and best soil good corn land.

“LEWIS MARSHALL, of Orleans county—I have sown winter barley in the spring, with good results. I sowed in March, upon land prepared in the fall, and got over fifty bushels per acre.

“MR. N. GOWDY, of Lewis county—Barley does well with us if we turn a sod and sow peas and oats, and, after that, barley. It don't do well on sod. We sow in May, or first of June.

“DR. VAN SLYCK, of Wayne county, said: Our barley crops were good until last year, which was very wet. I think barley more exhausting than wheat to the soil. Barley requires a strong soil, in as good order as for corn. He used to turn a clover sod, and plant corn, and follow with wheat and barley. Now we prefer to let the field lay in clover, and plow that under in the fall, then lightly spring plow, and sow barley, and get twenty or thirty bushels per acre. Turn under barley stubble and sow wheat, and get twenty bushels average per acre. Barley has fewer enemies than wheat. Seed clover with the wheat. If we sow barley after corn, we seed clover with it. Winter barley is the most popular, and yields thirty to fifty bushels per acre, and brings 12 cents a bushel more than spring barley. Clay soil is best with us for barley, and very good wheat land is good for barley. It should be sown Sept. 1. in drills.

“MR. DOWNING—We sow wheat after barley and

seed with clover, and let that lay two years, and then turn under."

*Distance for planting Corn.*—J. J. THOMAS, of Cayuga, stated that the usual distance of planting corn was three and a half feet apart each way. A piece planted three feet by twenty inches yielded one-third more than that planted the usual distance. Hon. GEORGE GEDDES said: "Of course, corn will produce more, if planted thick."

In this section, we have seen corn injured by planting as thick as recommended by Mr. THOMAS. It did not ripen well.

*Corn for Fodder.*—The Hon. T. C. PETERS, of Genesee county, said:

"I sowed a plot of ground in drills with Ohio corn, for fodder, and obtained at the rate of nine pounds of green fodder per square foot of ground; and as there is over 43,000 lbs. in an acre, we should have about 400,000 lbs. on an acre. In drying, stalks shrink two-thirds."

This is over sixty-five tons of dry fodder per acre; but friend PETERS should know that such a method of estimating a crop is erroneous.

*Plowing Land in the Fall, for Corn.*—"S. M. BROWN, of Onondaga—I grow corn cheaper than I did fifteen years ago. I plow in the fall eight to ten inches deep, in gravelly loam. I mellow it in the spring with a cultivator, and do most of the cultivation with the same implement. I grew near 100 bushels per acre this year, and it wout cost me over ten and a half cents per bushel. I think farmers would do well to depend more upon corn. I manure by top-dressing with compost, using salt, plaster, and unleached ashes, with barn-yard manure. Muck is good, but I have none. I plant corn on green sward not over four years old. I consider the fodder equal to two and a half tons of hay per acre."

*HEN MANURE FOR CORN.*—O. W. BLAIR, of Oneida county, put six bushels of hen manure on two acres of corn—a tablespoonful in each hill. The manure was covered about an inch deep, and the corn planted directly over the manure. The crop was eighty bushels of shelled corn per acre. He says: "I think the hen manure made some twenty-five or thirty bushels of corn on the two acres."

*LEICESTER PIGS.*—Mr. BLAIR gives the weight of three Leicester pigs, butchered on the 27th of December, when eight months and twenty-two days old. They weighed respectively, 298 lbs., 320 lbs., and 340½ lbs. They had the milk of three cows, well skimmed, and about two quarts of corn meal per day till September; after that, corn in the ear about six weeks; then corn meal, all they would eat, till they were butchered.

*FISH PONDS.*—If N. H. C. will keep frogs in his pond, they will keep it clear of the so-called frog-spittle.—W.

### EARLY VARIETIES OF WHEAT.

As before stated, in the August number of the *Genesee Farmer*, we expected samples of some of the earliest varieties of wheat raised in Virginia. FRANK G. RUFFIN, of Richmond, who kindly consented to aid us in this matter, informs us that he has written to many friends and acquaintances, but has only heard from one of them. This is JOHN F. WILEY, U. S. Marshall, Eastern District, Va. The variety of wheat raised by Mr. W. is the *Early Connor*. We annex a cut of it (fig. 1), together with some extracts from Mr. WILEY's letter to Mr. RUFFIN:

"I commenced my harvest on the 2d of June, which is some eight or ten days earlier than I recollect ever to have commenced harvest before. The grain, as you will perceive, is small, but of good quality, and very heavy.

The lands in my immediate neighborhood are not regarded as favorable to the growth of wheat. I have not yet cleaned my wheat, but my neighbor, Mr. Wm. M. MILLER, who cultivates the same variety, makes, the present year, ten bushels from one seeded, on thin land, without guano or any other fertilizer, which I regard as a very good yield. I regard it as a hardy, good-branching wheat, the only objection to it being its liability to injury from spring frosts, on account of its forwardness. You ask if it is not the same as the old *Red May* wheat. I am decidedly of opinion it is not. It has a stronger straw, branches more, grows taller, and ripens earlier, than the *May*. Notwithstanding its liability to injury from spring frosts, I think this objection more than counterbalanced by its exemption from the ravages of joint-worm, chinch-bug, &c., the injury resulting from these causes to this variety in my neighborhood being scarcely perceptible, while all other varieties have been much injured, and in some instances almost entirely destroyed. A striking instance of its exemption from injury from these pests is afforded in the crop of my friend and neighbor Mr. THOS. P. CARTER. He obtained of me, last fall, some eighteen or twenty bushels of wheat of this variety, which he sowed on a tobacco lot; and immediately adjoining it, on a part of the same lot, and at the same time, he sowed the *Woodfin* or *Polish* wheat. The *Connor* was entirely exempt from the ravages of the joint-worm, while the



FIG. 1.

The *Connor* was entirely exempt from the ravages of the joint-worm, while the

*Woodfin* was almost entirely destroyed, not yielding, he thinks, one peck to the bushel seeded. I have cultivated both the *White* and *Red May*, and I think the *Connor* preferable, being more productive than either."

We are indebted to LEVI BARTLETT, of Warner, N. H., for samples of three varieties of early wheat, together with descriptions of them, which will be read with interest. We deem this subject of such importance that we have procured engravings of the ears so obligingly sent us by Mr. B.

"THE EARLY JAPAN (fig. 2).—Brought from Japan by the late Commodore PERRY. It seems to prove a very hardy and early variety, coming into blossom about ten days earlier than any other variety I have experimented with. It is a red wheat, and probably will not yield the whitest grade of flour; but its earliness and hardness will offset for this defect. The four years I have been experimenting with it, it has not been injured by the midge, rust, or

smut. The heads are short, yet I have shelled from 55 to 60 grains from a single head.

"THE EARLY NOE (fig. 3).—Obtained from France a few years since, by the Patent Office. You will see that it is an open-headed, thick-chaffed variety, the head differing much from most other varieties. It has the thickest, hardest, and heaviest straw of any wheat that I have ever examined. From this I infer it will bear high manuring without liability to lodge.

"TUSCAN WHEAT (fig. 4).—Received at and distributed by the Patent Office. With the seed came a certificate signed by a number of Michigan farmers, certifying that this variety had been cultivated there nineteen years, without ever being injured by rust."

Mr. BARTLETT adds:

"There never has been, within my recollection, any winter wheat grown here till seven years ago.

Since then it has been considerably grown by many of our farmers; and when properly cultivated, it has generally done well. I have grown it for the five or six years past, and successfully too. Some four weeks ago, I took a short excursion about the town, and saw from seventeen to twenty fields of winter wheat. Most of them were extremely good.

"You write that you are 'deeply interested in this subject.' So am I. I have no hesitation in saying that, with the same population, in this and other of our towns, there is more *wheaten bread* eaten in one month than there was in the whole twelve forty or fifty years ago; and most of the flour from which this bread is made, is brought from the South and West. To pay for this *heavy import* of flour, causes an immense draft upon the purses of our people; while, with a little more skill, energy, and knowledge in wheat-culture, by our farmers, this evil might be greatly abated.

"Judging from my knowledge of the wheat-midge, which extends back some thirty years, your farmers who think the midge has *passed over* will yet find themselves sadly disappointed. If five years' experience gives me any right to speak in this matter, I will just say, with good culture, suitable soil, early sowing, (that is, in this section, from the 20th of August to the 10th of September,) farmers may pretty safely calculate upon fair crops of wheat—even crops of your best white wheats."

#### REFUSE OF TANNERIES.

At a late meeting of the Farmers' Club of Little Falls, New York, the subject of using the refuse of tanneries (hair, fleshings, lime, &c.) for agricultural purposes, was discussed, and one member stated that he had used hair on grain and grass with the most perfect effect. He had spread it thinly and harrowed it in with the spring wheat, and produced the best crop he had ever raised or seen in the neighborhood. Upon grass its effect has been very distinct and lasting. Applied upon the top of an unproductive dry piece of land, it had produced a very luxuriant growth, and without any other application, the dark green complexion of the sward had scarcely abated in ten years.—*Scientific Amer.*

WE have repeatedly called attention to the great fertilizing value of the refuse hair, seraps of hide, &c., from the tanneries. When free from impurities, hair and dry skin contain as much nitrogen as the best Peruvian guano. They are not so readily decomposed, and do not act so rapidly, but they are more lasting.



FIG. 2.



FIG. 3.



FIG. 4.

## CIDER AND CIDER-MAKING.

THE apple crop in this section, the present season, is more abundant than it has been for several years. In other sections, however, the crop was destroyed by the great June frost, and good apples command good prices, not only for home consumption, but for shipping to the Atlantic cities and to the Western States and Canada. It is, of course, far more profitable to sell cooking and eating apples than to convert them into cider. But notwithstanding the general introduction of good varieties of the apple, there are still thousands of orchards the fruit of which is too sour to be advantageously fed to hogs or cattle, and too poor to eat or cook, but which makes good cider, and is profitably used for that purpose. Indeed, it is thought that this natural fruit makes better cider than ordinary grafted varieties.

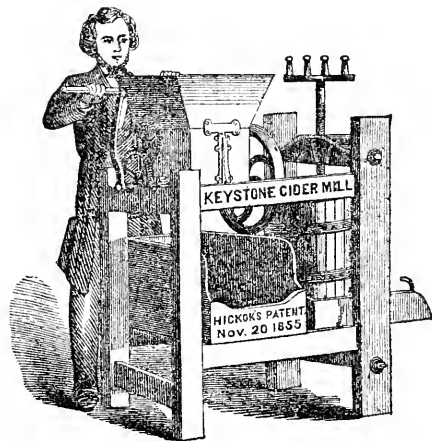
The usual process of making cider in this vicinity is, briefly as follows: The apples are allowed to get as ripe as possible; they are then picked up and taken to the cider-mill, where they are allowed to lie in a heap for a few days, to "sweat." This accelerates the ripening processes. They are then rasped or ground into pulp. The pulp is often immediately pressed; but if the weather is cool, and the apples not quite ripe, it is better to let the pulp remain in the vessel for a few days. This gives the cider a higher color, and is believed also to change some of the starchy or woody matter of the fruit into sugar.

The next operation is to press out the juice. This is a simple process, but requires some skill. Four boards, about six inches wide, are nailed together in a square, the size it is desired to make the "cheese." This is placed on the bottom of the press, and a little straw is put inside, with the ends extending about a foot all around. The pulp is then scooped upon the press, inside this rim, forming a layer about six inches thick. The straw is then turned over it, and a little pulp put on it to keep it down. The rim is then lifted, and four sticks are placed on the layer of pulp, for the rim to rest on. Some more straw is then placed all around, and another layer of pulp added as before. This process is repeated till the "cheese" is as large as desired—say 75 bushels of apples. Sufficient straw must be used to prevent the pulp from being pressed out at the sides; but with good straw (rye straw is best) and proper care, a small quantity only is needed. Sometimes the straw is wet with water; but this weakens the cider.

A considerable quantity of cider will flow from the "cheese" before it is pressed at all. After it is

settled somewhat, a very slight pressure is applied, which is gradually increased. If pressed too much at first, there is danger of the pulp bursting out at the sides. After pressing it as much as possible, and the cider has ceased to flow, the pressure is taken off, and the corners of the "cheese" are cut off with a hay-knife and the pomace laid on the top of the "cheese," when the pressure is again applied, and the cider will again flow freely. As soon as it ceases, remove the pressure and cut off four or five inches of pomace from the sides of the "cheese," place it on top, and apply the pressure again until the "cheese" is quite dry. Some, instead of cutting off the corners first, cut all round at once.

The cider is usually put in barrels at once, and sold while sweet. Eight to ten bushels of apples will generally make a barrel of cider. The price paid for the use of the mill and press is 12½ cents per barrel, when the farmer finds his own team and hands; or 25 cents when the mill-owner does the grinding and pressing himself.



This is the old-fashioned method of cider-making. We have now portable mills, which can be worked by hand, with a pressing apparatus attached. We annex a cut of one manufactured by W. O. HICKOX, of Harrisburgh, Pa. It can be worked by hand or horse-power, and is capable of making from six to twelve barrels of cider a day. It costs but little, and every farmer can have one of his own, and can make the cider, little or much, when convenient, and not have to draw the apples some distance to mill, and then "take his turn," and finally do up the work in a hurry.

Some writers recommend filtering the cider through sand and charcoal, to remove impurities; but if care has been taken to exclude all rotten fruit, it is, in our opinion, unnecessary.

There are a variety of methods resorted to for the purpose of arresting fermentation and keeping the cider sweet, such as putting a handful of well-powdered clay into each barrel; or two or three pounds of newly-burned charcoal, reduced to a powder, are added to each barrel of cider as it comes from the press. This makes it as black as ink at first, but it finally becomes remarkably clear. Others add a little mustard seed. Another method is to place a few gallons of cider in the barrel, and then a rag dipped in brimstone is attached to a long tapering bung; this is ignited, and the bung loosely inserted. After the brimstone is consumed, the barrel is rolled till the cider has absorbed the sulphurous acid gas. The barrel is then filled up with cider. The sulphurous acid gas, acting on the albuminous matter in the cider, arrests fermentation. The only objection to this method is that if too much gas is absorbed, it may prove injurious.

A much better method, and one which obviates this difficulty, is to have the sulphurous acid gas absorbed by lime. In other words, to put a little sulphite of lime (not sulphate of lime, or gypsum,) into the barrel with the cider. When the cider begins to ferment, the acetic acid formed unites with the lime and liberates sulphurous acid gas, and this immediately checks fermentation. The sulphite is nearly insoluble in water, and lies inert and harmless at the bottom of the barrel till it is needed. This is a very simple and effectual method of arresting fermentation at any stage desired. Of course, in all cases the cider should be kept as cool as possible, without allowing it to freeze; and the more effectually the air can be excluded, the better.

#### CULTIVATION OF WHEAT.

EDITORS GENESEE FARMER:—If I am correct in presuming that your journal discusses, as well as advances, opinions in regard to agriculture, perhaps you would allow me to make a remark or two on an article in your August number, entitled "Cultivation of Wheat."

You say: "Wheat likes a firm, compact soil; and if left somewhat rough and cloddy, it is none the worse (a); and you advise shallow plowing (b). Now, the deeper you plow, (I am speaking, of course, of a good depth of soil,) and the higher the state of pulverization you arrive at, the greater will be the yield of grain. You seem to set a high value on English farming; and I give this as an opinion formed after having seen and traveled for years over the best farming lands, and been among the best farmers in that country. But, instead of harrowing in the wheat, as you advise, they plow it in (c). I am certain that deep plowing and, as much as possible, pulverizing the soil, will bring the greatest crops. If the season be dry, the roots, owing to the looseness of the soil, shoot beyond, and are not dependent upon, the hot dust covering

the moist and rich soil which, under this system, supplies the plant with nutriment. Again; if the season be wet and cold, there is not so much danger of the plant suffering by the water standing around the roots. In fact, the loose soil is one large drain. Whereas, by shallow plowing, in a *dry* season, the wheat is burnt up, because the sub-soil is too hard for it to root deeper and obtain moisture; in a *wet* season it suffers from the cold and water penetrating and standing by every fibre. Why should not the soil be cultivated as deep as the roots will strike? I have detected fibres extending from the root to a distance of twelve inches from the surface of the soil, and some of my friends have found them at fifteen and eighteen inches distance. We can't always plow this depth, but we should do the most we can.

Now to the *looseness* of the soil. Lime is mostly used on heavy wheat lands in England. Is it as a manure? No. It is as a *rectifier*. It loosens the soil, pulverizes the clods, and enables the roots to expand themselves, and obtain what nutriment the soil *naturally* contains, which nutriment would not be available but by this pulverizing process (d). In the article, "Plowing vs. Spading" in the August number of the *Genesee Farmer*, Baron von LIEBIG says: "If the food of plants in the soil can not move toward the roots, it is evident that the roots must spread about and look for food." He advocates the spade. And why? It "*breaks, turns, and mixes it thoroughly.*"

In wet, cold, and sour lands, you advise to plow into high ridges, and make deep, well-cleaned furrows. I agree with you on this point, except that I would advise it on all lands.

*West Jersey, Ill., Aug., 1859.* JOHN C. COPESTAKE.

REMARKS.—(a) Is not that true? Is it not, as we said, "easy to make the surface too fine and smooth for wheat"?

(b) We did not "*advise shallow plowing.*" We merely stated that "the best English wheat-growers seldom plow deep *for wheat.*" Is not this a fact? It is hardly necessary, we hope, for us to say we are earnest advocates of deep plowing and thorough pulverization of the soil.

(c) We have seen seed wheat plowed in in England; but it is not at all the general practice. It is the exception and not the rule.

(d) If we are to understand from this that the value of lime is owing merely to its mechanical action, in rendering the soil loose, we must differ from our correspondent.

IS IT WELL TO CHANGE THE PASTURE OF COWS?—We had supposed that it was; but in the Report of the Committee appointed by the New York State Agricultural Society to visit dairy farms, it is stated that EDWIN PITCHER, of Martinsburg, who has a dairy of eighty cows, "has but one pasture in summer for his cows (except about twenty acres for night pasture), which he deems preferable, as the cows are more contented, and do better through the season than when changed in their pasture." What say our correspondents?



## SPIRIT OF THE AGRICULTURAL PRESS.

**SORGHO INJURIOUS AS FODDER.**—The Marquis de Vibrave states, in the French *Journal of Practical Agriculture*, that although sorgho is not poisonous to cattle, yet he has observed, since he commenced feeding it to his cattle, that it reduces the quantity of milk given by the cows, one-half; and that it also has the effect of inducing sterility, when cows are fed regularly upon it.

**BURNING THE PRAIRIES.**—A correspondent of the *Indiana Farmer* says that in very dry seasons the wet mucky spots on the prairies have in many instances been burned out to the depth of two feet; and that, instead of the result being a crop, next season, of waving pasture grasses, these spots have become overgrown with swamp willows, from three to ten feet high; and he strongly condemns the practice of burning such land, as mistaken economy.

**KIDNEY-WORMS IN SWINE.**—The *Germantown Telegraph* says this disease may generally be known by the animal appearing weak across the loins, and sometimes by a weakness in one or both hind legs. As soon as these symptoms appear, give the animal corn that is soaked in lye of wood ashes or strong soap-suds, and at the same time rub the loins with turpentine. An Ohio farmer cures this disease by giving one ounce of copperas daily, for six or eight days, dissolved in warm water, and mixed with two quarts of corn meal and dish-water.

**ALPACAS IN AUSTRALIA.**—By the *Sydney Morning Herald*, of June 13, 1859, we learn that the alpacas imported into Sydney, at so much expense, by Mr. LEDGER, have finally been purchased by the New South Wales government for \$75,000, and the sum of \$5,000 per annum allowed for the expense of keeping them at the public domain till it is decided that they can be successfully acclimated and disseminated among the flock masters of that country with profitable returns. We believe there were 280 in the flock, and it is said Mr. LEDGER has lost \$35,000 by the operation.

**KEEPING MILK SWEET.**—A correspondent of the *Homestead* found that, in sending milk to market, though it left the dairy perfectly sweet, it was often curdled on delivery to customers. To remedy this, the cans were covered with cotton cloth soaked in salt water. By this method the curdling of the milk was entirely prevented.

**OLD RADISH SEED.**—A correspondent of the *Prairie Farmer* says that radish seed that has been kept six years or more, will produce radishes of a better quality than new seed.

**MANAGEMENT OF MILK.**—The *Homestead* says: The milk-room and dairy management have something to do with the production of butter, and thinks an improved style of milk-room would be quite as likely to increase the yield of butter as an improved breed of cows. There is much truth in this; though there is no reason why we should not have improved breeds of cattle as well as improved dairy-houses and more skillful management. In fact, they often go together.

**HOGS FED ON ACORNS.**—A correspondent of the *Country Gentleman* asks why hogs fed on acorns for weeks will not gain anything for the same length of time if afterwards fed on corn. Is such the case? He has killed hogs from the woods, and found that their insides were completely black. He attributes this to the astringency of the acorns.

**ENGLISH BEANS.**—Col. B. P. JOHNSON mentions, in the *Journal of the New York State Agricultural Society*, that Mr. WAINWRIGHT, of Dutchess county, has been raising English beans for feeding stock. His crop last year succeeded well, and this year it promises an abundant yield.

**BRINE POISONOUS TO ANIMALS.**—The *Kentucky Turf Register* says a gentleman at Lawrenceport, Indiana, recently emptied brine from a pork barrel into the yard. A number of hogs, and also one horse, partook of it. The result was that the horse and seven hogs died in less than six hours after the barrel was emptied.

**CHARCOAL FOR FATTING ANIMALS.**—The *Valley Farmer* advocates the use of finely powdered charcoal mixed with the food of fattening animals, especially hogs, once or twice a week. It says that it serves as a medicine, and is also extremely fattening, either in itself or by rendering the food more available by strengthening and stimulating the digestive powers. We can not believe that it is, in itself, nutritious.

**LINSEED CAKE FOR HEIFERS BEFORE CALVING.**—C. S. FLINT, in his new and valuable work, *Milch Cows and Dairy Farming*, says that heifers fed with a little linseed cake, in addition to their other fodder, for three months before calving, acquire a larger development of the milk vessels, and yield more milk afterward, than others fed as usual. He thinks cotton-seed cake would answer equally well.

**HEAVES IN HORSES.**—It is said, in a recent number of an agricultural paper, that a quart of a decoction of smart-weed, given every day to a heavy horse, will cure the heaves. We doubt it; but there is no harm in trying.

## DAIRY MANAGEMENT IN SCOTLAND.

SIR JOHN SINCLAIR has stated that "it is supposed that the same quantity of herbage that would add 224 lbs. to the weight of an ox would produce 900 English gallons of milk." Now, if we reckon 6 oz. of butter to be the average weight obtained from a gallon of milk, we will get 337 lbs. of butter from the same quantity of herbage as was supposed to produce 224 lbs. of beef. If the hypothesis of Sir J. SINCLAIR be correct, there can be no doubt that it is the interest of the farmer to adopt the dairy system in preference to the feeding of cattle. But even granting that the difference between the production of beef and butter is not so great as stated by him, yet it is generally admitted that there is a considerable margin in favor of butter, particularly when we take into account the relative price of the two at the present time.

The importance of the subject being admitted, we may inquire shortly as to what kind of feeding is best adapted for producing the largest yield of butter. ARRON, in his *Agriculture of Ayrshire*, published about the beginning of this century, tells us that the winter food of the dairy stock at that time was the straw of oats, or, toward the mairish parts of the country, the hay of bog meadows, frequently but ill preserved. "For a few weeks after they calved, they were allowed some weak corn and chaff, boiled, with infusions of hay; and by way of luxury, a morsel of rye-grass or lea-hay once every day; and of late years, by some farmers, a small quantity of turnips in the early part of the winter, and a few potatoes in the spring, have been added." The effect of such feeding on the animals is apparent when they are turned out on the grass in summer; "many of them are so dried up and emaciated that they appear like the ghosts of cows, their milk vessels are dried up, and it is not till they have been several weeks on the grass that they give either much milk or that of a rich quality." The summer feeding was generally pasture; and though a much better system of feeding has been practiced throughout the country since the introduction of turnip husbandry, yet an approximation to that described by Mr. ARRON will be found in some of the upland districts.

Farmers have now, however, a great variety of food from which they can make a selection; and the problem to be solved now is not how a sufficiency of one particular kind of food is to be gathered together to keep the cows in life for a considerable period of the year, but rather what variety of food, or, better, what mixture of varieties, how much, and in what state (raw or cooked), will prove most profitable for the production of butter. The mainstay of the dairy farmer now as formerly in summer is grass; in winter, however, there has been a great improvement in the feeding of the cows, from the use of turnips and other roots, as well as many other substances, such as beans, draff or distillers' and brewers' grains, linseed and rape cake, &c. Even now in summer, in some districts, it is found advisable and profitable, where butter is wanted more than milk, to give the cows some nourishing food, in addition to the pasture, at the very height of the season. Draff and bean meal are the two substances more generally used in such circumstances.

If the production of butter is to be the main ob-

ject of keeping a dairy, there are two things to which the farmer should pay particular attention: the kind of cows he keeps, and the feeding. When we speak of the feeding, we mean not merely the quality of food the farmer purchases, but of what is grown on his farm. It is well known that the grass and turnips on some farms will produce far more butter from the same quantity of milk than those grown on others. We have known cattle fed on turnips alone from particular farms made fat in the same time as similar animals fed on turnips with the addition of two or three pounds of linseed cake each per day, the treatment and housing of the animals being alike in both cases. Certain fields will give a larger proportion of butter to the milk than others on the same farm. A farmer, therefore, should be guided, not only by the locality, but by the farm, in determining what department of the dairy he should turn his attention to.

Without referring at all, at present, to the kind of cow most profitable for a butter dairy, we pass on to a consideration of the kinds of food that may be used most profitably for the production of butter. The great authority on this subject is Mr. HORSFALL, who has laid the public under great obligations to himself for the publication of his experiments and views on this interesting question. His method of feeding is the following:

In May, his cows are turned out on rich pasture near the homestead. Toward evening they are housed for the night, when they are supplied with a mess of a steamed mixture, to be afterward described, and a little hay each morning and evening. During June, mown grass is given to them instead of hay, and they are also allowed two feeds of steamed mixture. This treatment is continued till October, when they are again wholly housed. After this they receive steamed food *ad libitum* three times per day. After each meal, cabbages are given, from October till December; kohlrabi till February; and mangels till grass-time—the supply of each of these varieties of green food being limited to 30 or 35 lbs. per day for each cow. Four lbs. of meadow hay are also allowed after each meal, or 12 lbs. per day for each cow, and water is placed before them twice a day, of which they partake as much as they feel inclined for. The steamed food spoken of above consists of "5 lbs. of rape-cake, 2 lbs. of bran, for each cow, mixed with a sufficient quantity of bean-straw, oat-straw, and shells of oats, in equal proportions, to supply them three times a day with as much as they will eat. The whole of the materials are moistened and blended together, and, after being well steamed, are given to the animals in a warm state. The attendant is allowed 1 lb. to 1½ lbs. of bean-meal per cow, according to circumstances, which he is charged to give to each cow in proportion to the yield of milk, those in full milk getting 2 lbs. each per day, others but little; it is dry, and mixed with the steamed food on its being dealt out separately." This is certainly high feeding, but it is amply repaid by the results; for, while cows fed in the ordinary way seldom produce milk which yields more than 1 oz. of butter to every quart, Mr. HORSFALL's milk gives upward of 1½ oz. for every quart. It is also an important part of his system never to allow his cows to fall off in condition. He considers the maintenance of the condition essential to a large yield of

milk There can be no doubt of the soundness of this opinion. A cow low in condition can not give the same quantity of milk, as much of the nourishment of the food is drawn off to make up the condition of the animal. And when a very lean cow is put on rich food, it is some weeks before the full benefit of the food can be obtained in milk, for the reason stated above. Another useful deduction made by Mr. HORSFALL from his experiments is, that albuminous matter is the most essential element in the food of the milk cow, and that any deficiency in the supply of this will be attended with loss of condition, and a consequent diminution in the quality of the milk.

In Scotland, bran is not very often used as an ingredient in any mixture of food for milk cows; but it will be seen from the foregoing that it forms an important part of Mr. HORSFALL'S mixture. Some time ago we came upon the following extract, we believe from the *Irish Farmers' Gazette*, which gives some valuable hints as to the use of different substances in the feeding of milk cows:

"In reading over the experiments on feeding in STEPHENS, a difference of opinion exists as to the comparative fattening qualities of linseed-cake, bean and other meal; and in the *Report of the Larne National Agricultural School for 1853*, 1 lb. of beans is said to be equal in fattening qualities to 30 lbs. of turnips, and nearly 3 lbs. of oat-meal. I tried the bean-meal one season, at the rate of 3 lbs. a day, boiled, for each milk cow, with mangel, turnip, and hay. By February one of them was fat, but I may say dry; and the others with about half the quantity of milk they had when commencing. I tried oatmeal for two winters, the same quantity in the same way, and each cow gave three times the quantity of milk and butter, and turned out full better the following summer. I tried the same quantity of yellow Indian meal last winter, and I think it good for both milk and butter. I tried bran for three winters, at the rate of 4 lbs. every night for each cow. It was equal to the oat-meal, while using, and my cows turned out better the following summer than on any other feeding. The bran not only keeps them healthy, and gives them a greater relish for their food, but there is some combination of qualities in it beyond what any writer I have seen attributes to it."

The state in which the food is given has also a great effect in the production of both milk and butter. We have observed more than once that the yield of butter and milk is never so great when we give cows boiled turnips, with beans boiled quite soft among them, as when they get the boiled turnips and the same weight of beans made into meal and mixed raw with them. Again, there is more milk, and no taste of the turnip in it, when the turnips are pulped and mixed with cut straw or chaff and fermented, than if the same weight of turnips are given whole and raw. In the *Journal d'Agriculture Pratique* we read a short notice on this subject, by M. LEJEUNE, a director of the Agricultural School at Thourout, in Belgium. The facts he reports are not to be regarded as experiments instituted to test any theory, but are merely extracted from his accounts, and show the importance of attending to the mode in which food is given to milk cows. In February, 1855, the milk of eight cows was selected for experiment. The

cows were fed in the following manner: Each cow got per day 4.4 lbs. of meadow hay, 13.2 lbs. straw, 4.8 lbs. linseed-meal, 11.5 lbs. of beet-root, and a cooked mash consisting of 5.5 lbs. of turnips, 2.7 lbs. of beet-root, 1.2 lbs. linseed-meal, 3.2 lbs. of rape-cake, 1.1 lb. of grain dust, 1.1 lb. of mixed meal, about 1½ oz. of salt, and 6 gallons of water. From this very watery diet a large quantity of milk was obtained, 16 quarts of which gave 1 lb. of butter. In the month of February, 1856, the calculation was made from the milk of ten cows, eight of which were those with which the observations were made in the previous year. The nutritive value of the food detailed above was calculated to be equivalent to upward of 30 lbs. of good meadow hay per head. The food given in 1856 consisted of oat-straw, beet-root, the meal of rye, oats, and buckwheat, linseed-cake, rape-cake, and the dust of wheat or bran, given in such proportions as to make the equivalent value of the day's feed equal to a little more than 31 lbs. per head of hay. None of it was cooked, and the beet-root was reduced to small pieces and sprinkled over the meal. There was not the same quantity of milk, but the proportion of butter was much larger, being 2 lbs. of butter for every 20 quarts of milk. The cows, with the exception of the food, were managed in the same way in both years, and there were more newly-calved cows in 1855 than in 1856.—*The Farmers' Note-Book in the Journal of Agriculture.*

#### JOHN JOHNSTON'S WHEAT CROP.

THE following extract from a private letter from JOHN JOHNSTON, of Geneva, N. Y., will be read with interest, and we hope Mr. J. will excuse us for publishing it:

"My crop of *Soule's* yielded over forty-one bushels per acre. It is all weighed, except the rakings, which got wet and sprouted, and are kept separate from the other. The field was summer-fallowed for wheat, and very highly manured, the fall previous, with rotted cattle and sheep manure. My red wheat—say twenty acres of it—I expect will go nearly as much, if the threshers are correct. This shows what dung does, as I have twelve acres of red at the extreme east of my farm that has not been manured in twenty-four years that only gave a little over thirty-one bushels per acre. Dung is the staff of life and that's the fact. The red wheat that is so good was on that twenty acre field that grew the large corn you saw. I always thought it the worst field I had for wheat; in fact, it never had a good crop of wheat until I drained it in 1843 and '44. The *Soule's* was on the *twenty-eight* acre field, the *second* field east of my house, where you a few years ago saw large clover, very highly manured the fall of 1857, intended for corn, but summer-fallowed last year and sown with wheat, commencing the 18th September last. I have always the best *Soule's* wheat, when sown about that time."

FOR SPAVIN.—Bin-iodide of mercury, five grains; lard, one ounce. Mix well. Rub the size of a white bean into the spavin once a day, until it produces a discharge from the skin. This application will reduce almost any hard swelling, even when it is of a bony nature.

### FALL PLOWING.

EDITORS GENESEE FARMER:—In the northern sections of our country, in consequence of the short *spring time*, for preparing the land for our grain crops, corn, potatoes, &c., it is a matter of much consequence that everything should be done in the fall that can serve to lessen spring work, such as plowing green-sward, corn, and other stubble-grounds, intended to be sown with grain and grass seeds the succeeding spring. These matters are all ably treated upon in your quotation from the *New England Farmer*, written by Mr. F. HOLBROOK some years since. He says: "From the last of October to the middle or later of November is a good time for plowing land, preparatory to sowing or planting in the following spring." Upon some accounts this late plowing may possess some advantages over that of August or September plowing; the weather is cooler, and usually the farmer is less hurried with other labors of the farm. But it is the opinion of some of our best farmers, that inverted sod-land, turned over early in September, will produce better crops of corn, oats, &c., than the same land would if plowed late as the middle of November. Direct experiments have proven the correctness of the opinion in favor of early plowing. The reasons for this seem quite obvious. The vegetable matters of the green-sward, turned over in the warmer weather of August and September, will soon after begin to heat and decompose; gases of various kinds will be evolved and absorbed by the soil, if of a loamy or clayey nature, and they will mostly be retained for the use of the succeeding spring crops. Portions of the potash, lime, and other mineral ingredients of the soil will be liberated by the action of the carbonic acid, ammonia, &c., formed during the decomposition of the vegetable matters plowed in; but no such fermentation will be likely to occur in the soil of the November plowed land, and the rains and snows of winter will so compress the inverted soil that the decomposition of buried vegetable matters will be much less perfect the following season. Your remarks, that "the great error in fall plowing is in not plowing early enough," in my view, is to the point, and correct. Heat, air, and moisture, are all requisite for the decomposition of vegetable and animal matters. The early plowed lands have all these requisites, while the late plowed are mostly deprived of these necessary conditions.

However, all farmers can not do as they would like in these matters. Some must necessarily delay plowing till late; others may have doubts in reference to the correctness of our views. To such, we would simply suggest an experiment in early and late plowing of a field of green-sward. Farmers differ widely in their views in regard to plowing, beside those of early and late plowing, viz: as to the proper depth to which the plow should be gauged, as also in the width of the furrow-slice, and whether it should be completely inverted or left at an angle of 45°—that is, lap-furrowed. All these matters, in a measure, depend upon certain contingencies, and admit of considerable variation; therefore, farmers should experiment, and investigate for themselves, and not trust too much upon what this or that man may say or write.

Some of the farmers, whose farms border the Merrimack river, in this State, I think, practice a

very judicious course of cultivating their alluvial and other deep loamy soils. I do not see how they can well improve upon their system of culture. The system pursued by the farmers referred to, is, with a strong team, to plow their sod-land in the fall, (some of them early in September,) to the depth of ten or twelve inches, some making use of the double or Michigan plow; for reasons, others prefer the common plow. The land remains as left by the plow till spring; then a wide harrow is run over the field, after which the manure is carted on, spread and plowed in to the depth of four or five inches, and again harrowed. This preparation makes the after culture, &c., very easy; the result is, a crop of sound corn, ranging for sixty to eighty bushels per acre.

The plowing of corn and grain stubble in autumn, for a succeeding crop of oats or other grain the following spring, has been recently practiced here to some extent. It saves time in the hurry of spring work, as the ground is readily prepared by the cultivator and harrow for the reception of the seed. The crops are thought to be equally good, if not better, than if the ground had been spring-plowed, and generally the seed can be sown earlier. For oats and barley, early sowing generally proves the most profitable.

LEVI BARTLETT.

Warner, N. H., September 14th, 1850.

### FEEDING BEES.

Those who keep an apiary should be particular in examining their hives sometime in the month of October, to ascertain if there is a sufficient stock of honey to carry the bees through till the May following. No hive of bees can be successfully wintered over on less than from 15 to 20 lbs. of honey; and strong, large families, will require more. The bee-keeper should be able from experience, to know, on examination, whether his hives contain a sufficiency of honey or not. Hives that have been occupied several years, contain a large amount of old comb and bee-bread, and will weigh as heavy, without honey, as those that have been used one season will with honey in them; therefore, in such cases, an allowance must be made for this extra weight. Where a deficiency is found to exist in the stock of honey, it becomes necessary to supply it by artificial feeding; which is usually done during the latter part of autumn, or the beginning of winter. Sometimes, however, it is found necessary to carry on the feeding process through the entire winter. This feeding of bees is generally looked upon as one of the greatest difficulties attending their management, and rather than put themselves to so much trouble, many apiarians suffer their bees to perish, although the cost of such feeding does not amount to one-tenth of the value of the bees. It is seldom that more than one or two families out of ten or twelve in an apiary require feeding; but still, it may happen that the entire apiary need it. For this purpose, small feeding-troughs of tin may be placed at the rear of the hives opposite to the ordinary entrance, the side of the trough resting against the hive; the trough to be about the length of the hive, four to six inches wide, and two in depth, or of just such a size as will be sufficient to contain a day's supply of food for the hive; the trough to be nearly filled with syrup,

made by dissolving sugar in water till it is of the thickness of honey, and heating it to boiling, and then carefully skimming off all impurities. The syrup of the Chinese sugar cane, when it can be got, is admirably adapted for feeding bees. When the syrup is placed in the trough, a thin perforated float of maple, or some hard wood, that will just fill the tin and settle down with the food as it is consumed, is to be placed on the top of the syrup, for the bees to alight on, and feed themselves through the interstices, without danger of getting stuck on the syrup. A few small holes are now to be made through the hive, just above the edge of the trough, to enable the bees to get to their food, and as a means of attracting them to it a little syrup may be sprinkled on the inside of the hive, close to these holes, and also on the top of the float. The trough is to be covered over with a coarse wire gauze, that will prevent all access to the trough except through the hive, and through which the trough can be replenished from day to day, without removing the trough, or disturbing the bees that may be feeding. Over the whole is to be placed a small box, to keep the light out, and prevent rain, cold, &c., from penetrating. Some people think it too much trouble to heat the syrup, and are contented to give the bees only sugar and water; but this is done under a mistaken idea, and proves the ruin of bees so fed. The water evaporates in a few days, and the sugar becomes crystallized in the cells, so that it is of no more use to the bees than so much stone, thus destroying every cell it hardens in for any further use. J. M.

#### GLEANINGS BY A YOUNG FARMER.

**SUCKING COWS.**—Several years ago, I had a young cow which persevered in sucking herself in spite of all the rigging I could contrive to prevent her, and the only way I succeeded in stopping her was to tie her up in a stall so narrow that the sides of it would touch her sides, and feeding her plenty of corn meal until she was fat enough to butcher, and then butchering her. Last spring, I had another likely three-year-old heifer, that had just come in for the first time, commence the same vicious habit. Remembering my former ill success in preventing mechanically, I determined to appeal to her *taste*, which I did by smearing the teats night and morning with soft grease, and then dusting them thoroughly with pulverized cayenne pepper. After continuing the applications about a week, they were discontinued. The cure was perfect, she never having repeated the offence, up to the present time.

**KICKING COWS.**—I have no difficulty in breaking the most *vicious kicker*, by *rarefying* them, *i. e.*, tying up one fore leg. They will not attempt to kick but once, for in so doing they will throw themselves.

**THE APPLE-TREE BORER.**—This pest of the orchard is becoming more and more destructive every year. Young orchards, especially upon gravelly ground, left to themselves are almost sure to be ruined in from one to three years. I have been experimenting to prevent them for the last six years, some of the time killing more *trees* than *grubs*. I have at least ascertained, to my entire satisfaction, that there are several articles not good for trees, be

they ever so good to kill the grubs. Experience is a dear school, but it is called a good one. Spirits of turpentine, when applied to apple and peach trees, I *know* will kill them; also, unleached ashes, when placed in contact with the bark of the apple by being piled around them. The peach appears to stand the latter. I had observed that trees upon a clay soil were much less infested than when upon a gravelly one. I thought by drawing the earth away from the roots of my trees, which are upon a very loose gravelly soil, and piling around them a small mound of clay worked up into a soft mortar, to place them in as favorable a condition as though they stood upon a clay soil. The result proved me to be mistaken. Instead of being an advantage, I found my trees never contained as many grubs before, many of them having a dozen each. This was caused by the shrinking and cracking of the clay as it dried, forming a small space between it and the bark, into which the insect could crawl and deposit its eggs. The bark, by being kept moist, was very soft and in excellent condition for them to flourish. I have settled down upon the following plan, which I am confident will prove successful: In the spring, I draw all the earth away from the body of the tree quite down to the roots, and dig out with a pen-knife all the grubs I can find, and then apply the following mixture with a paint brush, for a foot or eighteen inches above the ground: Plug tobacco, one pound; aloes, four ounces; water, two gallons; steep down to one gallon, and add one gallon of soft soap, and stir well. This should be applied in the spring, again the last of June and first of September, each time looking closely for grubs, which should always be removed with the knife, as this will not, nor will any other wash, eradicate them after they are once hatched. It should be used to prevent the insect from depositing their eggs upon the bark, and to destroy them when they are deposited, before they are hatched.

**THE BARK-LOUSE.**—I have succeeded in freeing a number of young trees that were wonderfully infested with the bark-louse, by washing with strong soap-suds and tobacco-water, applied as warm as the hand could bear, using a woolen rag and rubbing each branch separately. The warm water softens up the woody scales so that with a little rubbing the bark will be perfectly clear of them. I have often tried weak lye, but found they would stand any number of applications. The rubbing with hot suds is slow but perfectly effectual.

Cameron Mills, Steuben Co., N. Y., Sept. 2, 1859. S. M.

We shall be happy to receive some more of such "gleanings" from our correspondent. EDS.

**HEAVES IN HORSES.**—A correspondent asks for a cure for heaves in horses. I will send you one that a friend of mine gave me some time ago, which he says he has tried to his satisfaction and thinks it a certain cure, and I believe him to be a man of veracity. If you think best, you can publish in the *Farmer*. One pound of antimony, half a pound of sulphur, half a pound nitre, one-fourth pound rosin; powder fine and mix together. Give a horse half a tablespoonful twice a week, mixed with his food. I can not vouch for the above, not having tried it.—HENRY COX, *Wheatland, N. Y.*

## COARSE vs. FINE-WOOLED SHEEP.

EDITORS GENESEE FARMER:—In your July number, page 208, Z. B. S., of Fairfield, Ohio, (what objection can gentlemen have to using their names?) in writing under the head of "Fine vs. Coarse-Wooled Sheep," says: "I have kept both kinds, and, as far as my experience goes, am greatly in favor of the fine-wooled, provided they are of the right kind. I kept through the winter, one year ago, thirty-one sheep of the French and Spanish cross," \* \* \* "which sheared me 6 lbs. 11 oz. per head (on an average) of clean washed wool, that sold for 40 cts. per lb., while coarse wool sold for from 25 to 30 cts. My sheep were provided with (what I consider indispensable) good shelter, racks under cover, and fed with corn, oats, and wheat bran, in equal parts, half a bushel per day, and watered regularly. Now, if any one can show a greater profit from the same number of coarse-wooled sheep, I hope they will give us their experience."

I do not know if the Cotswold would come under the class of coarse-wooled, for theirs is the wool *muslin-de-lain* is made of; but I am familiar with the other breeds, (fine and others,) from breeding and otherwise, and am a breeder of Cotswold sheep, and import always the winners of the high prizes of the Royal Agricultural Society of England, to insure having the best. I will not draw a comparison between the pure-bred Cotswold and his fine-wool, (though Z. B. S. instances his pure-bred,) because pure-bred Cotswolds are too scarce and costly for slaughter—and the only fair way to calculate the profit for farming purposes, is for mutton and wool,—but will give the advantage to the fine by only calculating the *part-bred* Cotswold. I have never sold the Cotswold wool under 30 or over 40 cts. per lb., and that is fully as high as any fine wool will sell here. I consider the wool pays for the keep. I credit it with no more; and the Cotswold wool will, on the same keep, give *at least* as much money to the *fleece* as the fine wool. Z. B. S. claims 6 lbs. 11 oz. Allow 7 lbs., which, at 40 cts., gives \$2.80. Now, if I could make no more than \$2.80 per head for the whole year's keep, and feeding half a bushel per day, in the winter, of corn, oats, and bran mixed, to thirty-one sheep, besides hay, I certainly would not raise them for *profit*.

I always have some part-bred ewes to raise muttons from, and sell the lambs from such, the fall of the year they are one year old, not one for less than \$10 each to the butcher, and have sometimes sold them for \$25 to \$35 each. I have been offered \$50 each for the two-year-olds, and have been offered \$100 each to keep a lot to three years old, and feed them. A gentleman bought of me three wether lambs (two of them twins) to raise and feed for a Philadelphia butcher, who gave him \$250 for the three. One of them weighed 234 lbs., and the other two 204 and 192 lbs. net;\* and the butcher

was so pleased with their turn out, that he presented the gentleman with a silver pitcher additional, worth \$25. The thorough-bred in England have been brought to 430 lbs. gross, 320 lbs. net. Gentlemen in my county who have only the part-breeds, never sell their muttons under \$8 each (except a few for \$6) the summer and fall they are one year old from grass, never having fed grain at all at any time; and this is of every year's occurrence. Butchers come here from Washington City, Baltimore, Philadelphia, and New York—from 100 to 300 miles. The farmer never drives them one mile; and rarely, if ever, is there one mutton in this county as old as two years. This is one of the profitable advantages of this breed of sheep. They sell higher—much higher—at one year old than other breeds at four; and a man need never be overstocked—the butcher is always ready for any surpluses. They are almost always muttons, it being their peculiar trait to take on fat.

Now let Z. B. S. make his own calculation as to the profits of the breeds for *farming* purposes, *i. e.*, for mutton and wool, not for breeding purposes, and see the difference. He made his thirty-one sheep at \$2.80 each—\$86.80. Mine would have brought in lambs alone, independent of the wool, \$310, (my wool brought at least as much money to the *fleece* as his,) allowing my ewes brought only one lamb each, as did his; but it has been proved in a court of record, that "twenty Cotswold ewes brought and raised, in one season, sixty lambs;" and an agricultural society has had it proved, to its satisfaction, that "eleven Cotswold ewes brought twenty-eight living lambs. Five of the eleven brought sixteen lambs—one of the five brought four, and the other four brought three lambs each." Both so unusual as to be remarkable.

My sheep have a common straw shelter, that they may go in and out at pleasure. If snow is on the ground, I have a rack under the shelter, for hay. Occasionally, while snow is on the ground, I give them a little offal and salt. Water is in the field. I rarely give them offal or grain of any kind. What would they not be, if I were to give them, as Z. B. S. does his, "corn, oats, and wheat bran, in equal parts, half a bushel per day"?

In the experiments of Z. B. S. with long-wools, could he have had "the right kind" of long-wools, or long-wools of pure blood, or long-wools at all?

JOSIAH WM. WARE.

Berrysville, Clarke Co., Va., July, 1859.

TO CURE SCAB AMONG SHEEP.—Take four pound tobacco—best natural leaf; extract the juice. One pound corrosive sublimate, half-pound sal ammoniac, one pound sulphate zinc, half-pound arsenic one pound red precipitate, three quarts spirits turpentine. Dissolve the precipitate, arsenic, and corrosive sublimate in the turpentine; the balance dissolve in soft water. Procure five barrels of soft water. First add the solution in water; stir and mix well; then add the solution of turpentine, adding the amber. The whole should be about 90° Fahrenheit. Dip the sheep in the liquid; wash and rub well until thoroughly saturated to the skin. Keep the sheep under shelter, if done in cold, damp weather. This will effect a permanent cure in a short time.—EDWARD KINLEY, Salem, Iowa.

\* This is nearly 40 cts. per lb. for the mutton. Butchers will sometimes pay exorbitant prices for prize cattle and sheep, to exhibit to their customers. But in instituting a comparison between the relative advantages of keeping different breeds of sheep, it is hardly allowable to take such unusual prices as the basis of calculation, or even to allude to them as an argument in favor of a particular breed. Our correspondent, too, leaves out of the question the fact that such large sheep as the Cotswolds will consume more food than smaller breeds. EDS.

## DO SHEEP DETERIORATE IN THE QUALITY OF THEIR WOOL IN WARM CLIMATES?

EDITORS GENESEE FARMER:—President FANNING, of Franklin College, Tenn., remarks, in the *Southern Homestead*:

"The effect of a warm climate is to thin out and shorten the fibre, lighten the fleece, and take the wool from the limbs and under portions of the body, and substitute rough, hairy locks, particularly about the hips, neck, &c. In higher latitudes, sheep are more compact and uniform in the fleece over the whole body, and the yield is perhaps double that of southern flocks."

Now is all this true? Hardly, I think, to the extent the Professor would lead us to believe. Where do the finest and best wools come from? Is it not the hot and dry climate of Australia, of Cape Colony, and of the plains of Estramadura and Saxony? Is it not generally the case that the fine-wooled sheep, if removed to a colder and damper climate, such as Great Britain or the northern States of America, are apt to have their wool deteriorate and become coarser, from the united effects of external moisture, the want of green and succulent food, and the confinement during our long and severe winters? Would not the same amount of care and attention expended on a fine-wooled sheep in the ever green pastures of Australia result in the production of a larger and finer fleece than is obtained from the same animal in Vermont? What would be the quality and quantity of wool obtained from a sheep in Vermont, if it were to have to shift for itself all the year round, exposed to the wet and cold, and subsisting on the driest of hay or a cold bite of frozen grass? Do the fine-wooled sheep in Australia, Spain, or Saxony, yield a less average weight of fleece than those of Vermont or Ohio, of an equality of fineness? Is there not a great difference in the profit of keeping 1000 sheep in the former at the same expense as 100 in the latter? Is not the want of green food in winter, such as turnips, one of the causes why sheep, when removed to our cold northern climate, have a tendency to yield wool of a coarser fibre and longer staple?

Will some of your correspondents give us their views on this subject? M.

## THE INSECT ON MULLEINS NOT THE WHEAT-MIDGE.

—I have to-day been examining, with a microscope, the small yellow worm which infests the mulleins, and which has been supposed to be the larva of the wheat-midge. But I think that it is not this larva, though at first sight it closely resembles it. Its color and size are exactly the same, but it moves about much more actively, and the microscope reveals that this larva has several long legs, which the larva of the wheat-midge has not, and a sharp pointed tail, and two horns or antennæ from a very projecting head, which it moves from one side to the other. Now the larva of the wheat midge has scarcely any perceptible motion at any stage of its existence, (and it has long ago passed into the pupa state,) nor are there any marked distinction between its two ends; both are similarly rounded off, and there are no antennæ.—E. M., *Ancaster, C. W.*, September 8, 1859.

## WEATHER, CROPS, &amp;c., IN MAINE.

EDITORS GENESEE FARMER:—No rain fell in the month of August up to the 25th, when we received a refreshing fall of eighteen hours continuance. The number of days drouth was fifty-two, or from July 3d till August 25th. The monthly mean of heat for August at this place, lat. 44 deg. 22 min. N., long. 69 deg. 6 min. W., was 70°. This was obtained from observations made by myself at the hours of 7 A. M., Noon, and 6 P. M. The warmest day was the 5th—mean 81°; the coldest, 30th—mean 59°. The weather for September, up to this date (Sept. 7th), has been cool. Vegetation suffered severely in consequence of the drouth, but partially revived under the influence of the moisture. Grain has been harvested in good order; the crop is remunerative; principally oats and barley. Wheat, rye, and buckwheat, are grown to a limited extent. Potatoes have as yet escaped the rot and rust. Many fields are to be seen perfectly green and growing, exhibiting a striking contrast with former years, when the tops were black—dead with rust—long before this time of the year. The absence of rust can only be attributed to the lack of moisture—foggy weather—of which we have been most entirely free the past season. Throughout the whole State, fruit is entirely wanting. Corn has revived, and will be quite a crop. The grasshoppers in some sections are very destructive, sweeping whole fields of potatoes, turnips, carrots, etc.

*Belfast, Me., Sept. 7, 1859.*

G. E. BRACKETT.

## MANAGEMENT OF HOGS.

EDITORS GENESEE FARMER:—A very good way of keeping stock hogs through the winter, is to have a sufficient quantity of sheaf rye stacked at some distance from the barn and away from other animals, as hogs do best where they are not annoyed. The rye can be fed in the sheaf. One sheaf per day for each pig that is nine months old is sufficient. It is better for them thus than in any other way, as they masticate it better, and it is easily digested. They should have a field to run in, with a good supply of fresh water. A small quantity of salt may be laid by the water, where the pigs can have ready access to it. Last season, I wintered my swine on sheaf rye, and I never had any look better.

In wintering hogs, people err in keeping them in stys for weeks, and even months, without changing their bed. Mine lie scattered through the straw, and look clean and healthy. They work the straw over, and have it in good condition for plowing under in early spring. If young pigs are kept at home in winter, it is best to put the mother in the sty, and give them a fresh bed of straw every week, and let them also have air and exercise on warm days. Wean them at the end of seven weeks, and then feed them with scalded Indian meal for the first six weeks after.

JOHN EWING.

*Benton, Holmes County, Ohio, 1859.*

THERE are truths which some men despise, because they have not examined them; and which they will not examine, because they despise them.

TO PREVENT HENS EATING THEIR EGGS—Give them a piece of raw meat, about once a week, to peck at.



## NOTES FOR THE MONTH—BY S. W.

THE SOIL AND CLIMATE OF MINNESOTA.—The editor of the *Lake City Tribune*, a practical farmer and a gifted western editor, says that corn in his garden, planted on the 24th of May, and only one foot high on the fourth of July, was seven feet high on the 24th of July. When I first landed, in 1814, at Dunlap's, north of Sheldrake Point, Cayuga Lake, N. Y., I was astounded at the growth of Indian corn growing there. The soil was so well divided by vegetable matter, that I could pull out the large corn roots, a foot or more in length. I did not again visit those fields until twenty years afterward. Then the soil was so worn down by cereal cropping, that it had changed from a corn to a wheat soil; and it was solely indebted for its present vegetable matter to recent crops of clover plowed into the calcareous loam. At that early day, such beech, maple, and basswood land brought great corn and great wheat straw; but while the cereal yield of corn was perfect, the wheat was shrunken. Then the oak lands, common to both sides of the lake, except this particular locality, brought the finest of white, thin-skinned wheat, with the least possible tillage. The oaks were girdled, the brush burned, and the wheat harrowed in; and kind nature gave the increase, as God in love and mercy ever favors the poor who help themselves.

But methinks Minnesota is not altogether indebted, for her corn-growing success, to the vegetable matter in her soil; her climate must be much less capricious than ours, as no twenty consecutive days in July in this region ever gave six feet altitude to Indian corn, no matter how well suited the soil might be to the growth of the corn plant. I had sweet corn fit to boil on the 8th of August, planted on the 4th of May. It grew more than four inches some days; but then a few cool days, or a cold northeast rain storm, would keep it a week in abeyance. Yet we had some hot, corn-growing days in May, when corn grew fast in proportion to its then slender roots; and at that time the region about Lake City was chilled below corn-growing by the ice in Lake Pepin. I hope the editor of the *Tribune* will consent to keep a diary of the weather there, for the benefit of his outside readers, and publish it, as he does much other valuable information.

SILICATE OF LIME.—The best farming and general amendment of the soil, at the smallest outlay for manures, is undoubtedly in Eastern Pennsylvania. Red clover is there the principal meadow crop, and lime and clover their principal manure, always including that of the stalls. Many farmers there have lime-kilns on their farms, and every farmer uses lime without stint on his clover lays and fallows, where organic matter is not exhausted. As lime is not needed in any quantity as an ingredient of the plant, it has been supposed that the office of lime, thus liberally applied to the soil, is to dissolve the woody fibre, and other matters in the soil, into available plant-food. But the late discoveries of Prof. WAY, corroborated by still later experiments of EICHMORN, give another and not less important value to lime in the soil, to wit, that the silicate of lime alone has the power of attracting ammonia from the air. (Vide leader in the *August Farmer*.) At the well-wooded North Manitou Island, last summer, I was astonished, in common with every

other farmer passenger, to see such millet, potatoes, and corn, growing, almost without manure, in a very loose, coarse, and nearly white sand. The proprietor attributed the fertility of the soil solely to the lime it contained. The beach was covered with boulders and pebbles of nearly white magnesian limestone, including those of quartz, feldspar, &c., but no stratified limestone was *in situ*. May it not be inferred that the fertility of this soil of drifting sand and boulders is due to the presence of the silicate of lime in the soil, and to the affinity of lime-silicates for atmospheric ammonia? In no other region that ever came under my notice did such tall, large beeches and maples grow on a soil so poor in the aluminous principle and vegetable matter. The extreme transparency of Lake Michigan in this region proclaims the aluminous poverty of the soil.

THE BEST FOOD AND TREATMENT FOR HENS.—A late agricultural paper recommends azote as a very necessary ingredient in the food of laying hens. Azote is the French for nitrogen; and as a laying hen is constantly contributing nitrogenous food for man, in her eggs, it is indispensable that she should be well fed with both vegetable and animal food. Linseed meal, being the richest of all vegetable food in azote or nitrogen, I have found to be a great promoter of egg-laying. It should be mixed with scalded meal or shorts, or with sour milk. In this way it is a good substitute for animal food, or the insectivora that hens are deprived of when confined to narrow quarters. I have found that there is no food hens like so well as Indian corn, and it is also the cheapest grain for their food. A pint of corn will go as far in feeding hens, besides being better relished, as four times its bulk in made dishes. I have found, on trial, that a small yard is a worse prison for hens than a larger stable with a basement, where the floor is dry earth. The continued moisture from rain in an open yard soon makes the whole surface redolent of excrements, whereas a barn floor may be sanded and kept sweet and dry. With sand to roll in, hens may be confined under cover the whole season. Half an hour before sunset they should be let out to range over the yard and garden. They will then be too busy picking grass, gravel, &c., to scratch and do mischief, being always in a hurry to return to roost before even twilight begins. Hens thus kept will more than twice pay for their keeping, if not too old to lay well. Two or three days' imprisonment in a coop will break up Black Spanish hens from sitting, and they soon commence laying again, if well fed. It is only profitable for a villager to raise a few early chickens to renew his laying stock, as chickens are great and increasing feeders, eating, when half grown, twice as much as an old fat hen. Among the grasshoppers of the farm chickens are more profitably grown.

Waterloo, N. Y., August 11, 1859.

FOR CAKED BAG OR GARGET.—Strong tincture of iodine, half a drachm; lard, one ounce. Mix well. Rub the hardened or inflamed parts of the udder well twice a day. If there is much heat and redness, it is better to paint the part twice a day with strong tincture of iodine (two scruples to an ounce of alcohol), and bathe with whiskey two or three times a day; and when the heat is reduced, use the ointment.

## THE DESTRUCTION OF OUR FOREST TREES.

EDS. GENESSEE FARMER:—I have often thought of the reckless destruction of our forests, and our utter carelessness about cultivating timber. True, some look into the future, and leave a part of their forests for future use; but the majority go with headlong haste to destroy their timber, as if in a hundred years none would be needed. But few reflect that posterity may need timber for building, fencing, fuel, &c.; and not a small number think there is a sufficiency for their time, and that their posterity may look out for themselves. This is truly ungrateful to the Creator. God made the earth, with its fulness, for all his children; and those who fail to make provision for the coming generations, or who destroy that already made for the accommodation of all, through all time, do not fulfill their duty.

Even in the States of Ohio, Kentucky, and Indiana, which once abounded in timber, there are many places where timber is already scarce; and yet to endeavor to impress the propriety and necessity of cultivating timber, would be thought ridiculous. One man, to whom I made the necessity of timber-culture quite apparent, replied, or rather defended himself against my arguments, by saying, "My neighbors would laugh at me!"

It must be apparent to any reflecting mind, that, should the present rate of consuming timber be continued, and no efforts be made for its re-production, many districts will, at no distant day, be sadly in want of the article. The vast consumption by steam alone, should rouse us to a different course.

I am pleased with friend BEMENT's thoughts on the Oaks of New York, in last year's volume of the *Farmer*, and hope that he, and others of similar views on so important a subject, will speak more on the culture of timber, in the *Genessee Farmer* and other public journals.

For the encouragement of those who think of the subject, and to whom the practicability of raising timber may be a problem, let me say that in my boyhood I roamed over districts in Stark Co., Ohio, where I could see from one to fifteen miles over plains (so-called) without any timber but scions of a year's growth, and on many spots not a sign of anything but grass, and on the hills (Stark is hilly in some parts) many acres quite bare of timber. But now, not over forty years later, there are dense, beautiful—delightfully beautiful—groves of timber from fifteen to forty feet high. Could those who think the culture of timber a chimera have seen these plains and bare hills, and now behold the enchanting groves of oaks, hickories, &c., they would be astonished, and be induced to plant acorns and nuts, or at least not laugh at those who would engage in timber-culture.

In the same county (Stark), I saw sprouts on chestnut stumps, not over fifteen years old, that afforded eight good rails to the lower cut. The scions or sprouts of chestnut grow, the first few years, faster than those from the seed; but it is a luxuriant-growing tree, and should be planted wherever the soil is congenial. Not only its useful timber, but its excellent nut, should give two-fold inducement. The black or native locust should be extensively grown, its timber is so durable and therefore valuable. It is of rapid growth, and the

sprouts are easily transplanted. The white pine and red cedar should command our attention, not only for their valuable timber, but for beauty and shelter. At Forloru Hope, Stark county, Ohio, are white pines, transplanted about twenty-five years since, fifty feet high, and twenty inches in diameter at two feet above the ground. Also, spruce, red cedar, and tamarack, from twelve to fifteen inches in diameter.

A. BAER, JR.

Pipestown, Berrien Co., Mich., 1859.

## HUNGARIAN GRASS.

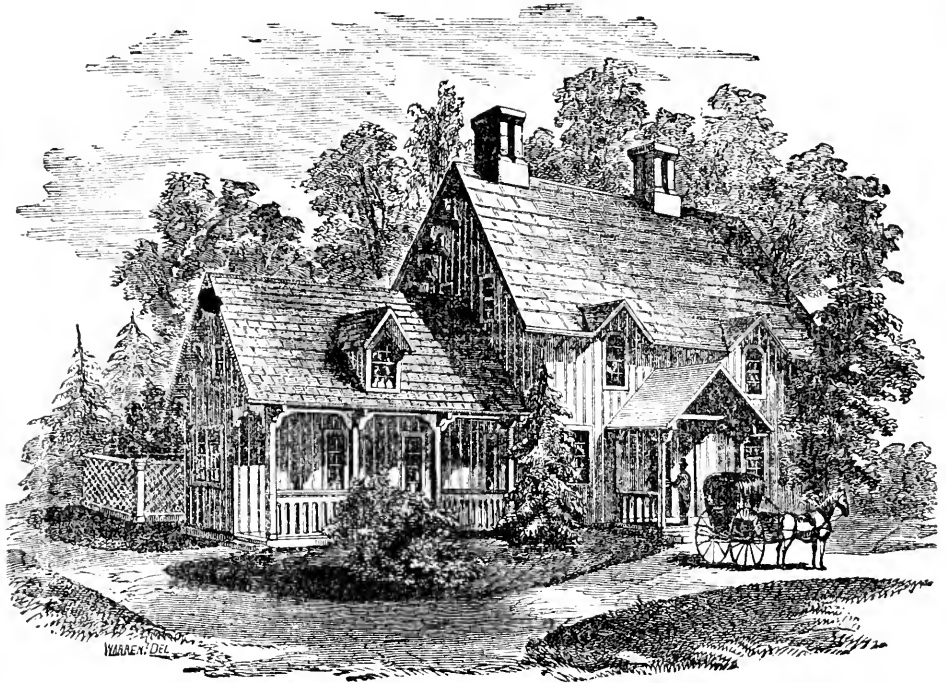
EDITORS GENESSEE FARMER:—In the August number of your paper I find an inquiry from G. E. B., of Belfast, Me., asking if Hungarian grass is a species of millet, or a "humbug." One portion of this query I can answer. Most assuredly it is not a "humbug." In the month of June I sowed fifteen acres of Hungarian grass, in no less than seven different portions of our farm, and of course on different varieties of soil, &c. We have Hungarian grass, sown on the 17th day of June, that now stands over four feet high and just as thick as it can possibly stand; and I have no doubt that from three of our parcels we shall get at least four tons per acre of dry fodder. Certainly, in the present scarcity of hay, it will prove a most profitable crop; and I have not a particle of doubt that if sown in this latitude as late as the 20th day of July, it would mature sufficiently to make most excellent fodder, as that sown by us on the 20th of June is now heading out, and would yield, if cut now, much more hay than the best meadow I have seen this summer. So much for the "humbug" part of G. E. B.'s question.

Now as to it being millet, we have A. B. DICKINSON'S *ipse dixit* for that; but I beg leave to say that Hungarian grass and millet are two very distinct varieties of the same great family of forage plants.\* I have growing, at this present time, by the side of one of our parcels of Hungarian grass, three acres of millet; and a blind man could distinguish the great difference which exists in the two. First, we get but one stem and one head from each millet seed, while from the seed of Hungarian grass we get from one to ten. The leaf of the millet has a rough edge and surface, while that of the grass is quite smooth. The millet grows much stronger and shorter between the joints than the Hungarian grass. The heads do not resemble each other any more than the heads of oats resemble wheat—the millet having a long, flat, branching head; while the Hungarian grass has a short, compact, round head. Again, there is great difference in the color of the two plants while growing; and the only point of resemblance that I can see, is in the shape of the seed. I think that Mr. DICKINSON was entirely ignorant of the subject on which he wrote, when he pronounced Hungarian grass the millet and barn-yard grass of forty and seventy-five years ago. Millet itself bears but little resemblance to barn-yard grass, and Hungarian grass much less.

Detroit, Mich., Aug., 1859.

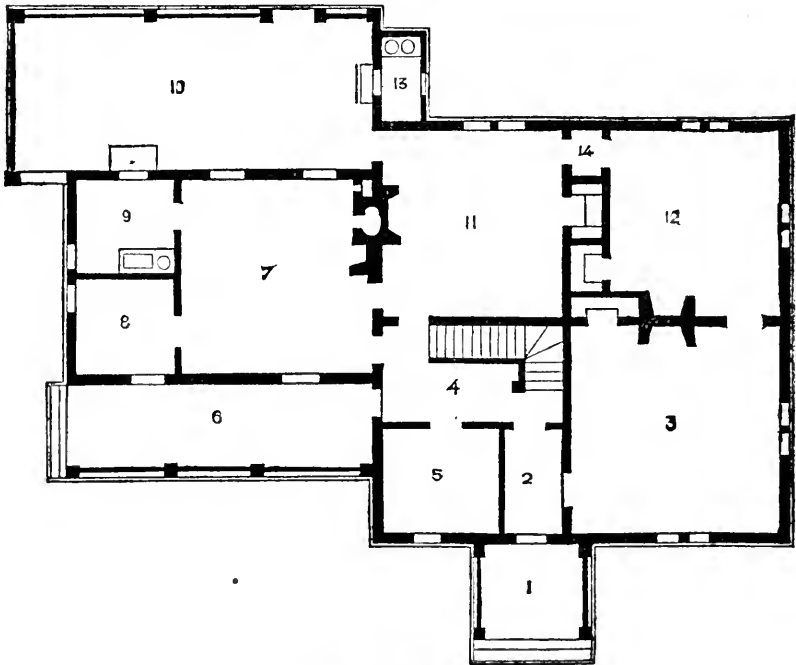
C. WOOD DAVIS.

\* G. E. B. asks if Hungarian grass is a variety of millet. Our correspondent admits that it is. We understand A. B. DICKINSON to claim nothing more than this—that Hungarian grass is a variety of millet.



HARNEY DEL.

DESIGN FOR A COUNTRY HOUSE.



GROUND PLAN.

**DESIGN FOR A COUNTRY HOUSE.**

MR. HARNEY'S designs for houses, three of which have already appeared in the *Genesee Farmer*, have, we believe, given very general satisfaction. The

houses are well arranged, and there is a home-like look about them which commend them to the attention of all about to build. If there is any fault, it is that they are too expensive for the majority of

farmers. We should be glad if some of our readers would furnish us a few designs for cheaper houses.

This month we present a design, by Mr. HARNEY, for a bracketed country house of two and a half stories. It consists of a main body and an L. The main house is square in plan, and measures 36 ft. on each side; the L, containing the kitchen and its offices, is 18 ft. by 26, and one story and a half in height. The disposition of the several apartments of the house is as follows:

The front entrance porch, No. 1, opens into a vestibule, No. 2, 5 ft. by 9. From this vestibule we enter the parlor, No. 3, which is 18 ft. square, and contains a good-sized closet. At the further end of the vestibule, a door, the upper panels of which may be glazed, opens into the staircase hall, No. 4. This hall contains stairs to the chambers above, under which is a flight leading to the cellar, and opens into the following rooms:

No. 5, office or library for the master of the house, so situated as to be convenient to the door opening upon the recessed veranda, No. 6; No. 7, kitchen, 16 ft. square; No. 8, store-room, 7 ft. 6 in. by 8 ft.; No. 9, pantry, 8 ft. square, containing pump and sink, and leading into the private yard, No. 10; this yard is to be enclosed by a lattice fence 7 ft. high.

No. 11, living-room, 15 ft. by 16, containing a large closet, and communicating, by means of a passage way, No. 14, with the family bed-room, No. 12. No. 13 is a privy opening into the enclosed yard.

The second story contains three large chambers and a child's bed-room, besides the hall and several closets in the main body; and a servants' bed-room, a large clothes-press, and a bathing-room in the L.

The third story, or attic, furnishes room for three large bed-rooms and numerous closets.

**CONSTRUCTION.**—This house is to be constructed in the same manner as those we have before offered, namely, vertical boarding and battens for the outside covering, and plain finish, with walls prepared for papering, for the interior. All the lower windows of the main part are to be shielded by hoods\* 12 inches wide. The roof projects three feet all around, and is supported on plain 3½-inch brackets. Height of first story, 10 feet; height of second story, 9 feet.

The cost of the above house would be from \$3,300 to \$3,500.

\* In Mr. HARNEY's design there are two skylights, for partially lighting the attics. These, and the "hoods" over the lower windows, mentioned above, do not appear in the view, having been omitted by the engraver.



ORNAMENTAL BEE-HOUSE.

SPRINGSIDE is a fancy place, and all the buildings are of a fanciful order. The lodge is a gem in its way. The family cottage, the gardener's cottage, the conservatory and grape-house, the carriage-house and stables, the dairy, ice-house, and poultry-houses, are all models of beauty. A bee-house seemed to be wanting to complete the arrangements.

There are various modes of housing the hives. Some are very ornamental, and may be scattered over pleasure-grounds and gardens, in the form of grottos, temples, etc., and thus unite ornament and use. PHELPS, in his *Bee-Keeper's Chart*, says: "Much more depends upon the location of the apiary than most bee-keepers appear to imagine; and even among those who have the preference, there are different opinions on the subject."

"If we keep bees for ornament," says QUINBY, "it would be well to build a bee-house, paint the hives, etc.; but as I expect the majority of readers will be interested in the profit of the thing, I will say that the bees will not pay a cent toward extra expenses; they will not do a whit more labor in a painted house than if it was thatched with straw." Notwithstanding this high authority, we were determined to erect one to correspond with the other buildings on the premises. It was the wish of the proprietor to have something fanciful. Architectural, agricultural, and various works on bee-culture, were consulted, without finding anything to suit our purpose. After sketching various forms and plans, the one figured at the head of this article was finally adopted. It is something of the Gothic style of architecture, and is considered a beautiful specimen of an ornamental bee-house.

The style and external form is pretty well delineated in the foregoing sketch. Each wing is 10 ft. long and the front posts 9 ft. high, the rear ones 8 ft. The tower is 6 ft. square—the same width as the two wing rooms, which extend into the tower, making the length of each room 16 ft. Inside, against the front wall, are two shelves, one above the other, extending the whole length, sufficient to accommodate twenty of Phelps' patent hives.—Shelves are also placed in the upper part of the tower, suitable for six more hives. The sides are of inch-and-a-quarter plank, tongued and grooved, and battened. The floor is of hemlock boards, and

the roof of shingles. There are two glazed windows—one facing the west, the other facing the north. These windows, when opened, and the holes under the roof, give a complete circulation of air, so necessary for the comfort of the bees in the heat of summer. The hives are placed against the side, with a tube three inches wide and half an inch deep projecting through, for the egress and ingress of the bees. By this arrangement, the bee-keeper can examine the hives without molestation from the bees.

As this building is situated, one wing faces the east, the other the south. This gives the bees the influence of the sun in the morning, or fore part of the day, when it is beneficial to them; and during the middle of the day it will not be so oppressive as when the hives are unprotected by the front wall.

This is the second season since this building has been occupied by bees, and so far has met our most sanguine expectations. Our stock of bees has more than doubled, and we have had a good supply of honey.

Many suppose a miserable box, placed on an old board, and stuck in some dark, out-of-the-way corner, is all sufficient; and even when so placed, they are discovered to be very profitable tenants. But these industrious little insects are worthy of a better situation; and we think it will be found that the profit arising from them will increase in proportion to the care and attention bestowed.

Springdale, N. Y., Aug., 1859.

C. N. BEMENT.

#### PAINTING HOUSES.

The *Rural Register*, a new and valuable agricultural paper lately started at Baltimore, says:

"Wherever a white house is set conspicuously, either on a hill or in a valley, it is a blotch upon the landscape, because it never harmonizes with the scenery around it. A white house with green blinds offends the very first principles of good taste."

This is too much the case; and it is much to be wished that our rural friends would show a better appreciation of the effects of color, by subduing the too glaring white of their houses, which is easily done by mixing a few pounds of some color with the white, when painting or whitewashing the outside of their residences, that will render it of a more neutral tint, such as stone gray, salmon color, or light brown. UVEDALE PRICE, a good authority on this subject, is thus quoted by DOWNING:

"When the sun breaks out in gleams, there is something that delights and surprises, in seeing an object, before only visible, lighted up in splendor, and then gradually sinking into shade. But a whitened object is already brightened up; it remains so when everything else has returned into obscurity; it still forces itself into notice—*still impudently stares you in the face*. An object of a sober tint, unexpectedly gilded by the sun, is like a serious countenance suddenly lighted up by a smile; a whitened object, like the eternal grin of a fool."

There are some cases where this sweeping condemnation is not so applicable, such as where a house is so embowered in foliage that but little of it is seen.

#### SHOULD YOUNG DUCKS BE ALLOWED TO GO TO WATER.

EDITORS GENESEE FARMER:—Did you ever know an animal to be misled by its instincts? If not, how happens it that the mother duck takes her young (and, to her, precious) charge direct from the nest to the nearest pond? If it is "decidedly injurious" to allow a young duckling to get into the water for a week or two after it is hatched, I think the expectant mother would have selected some spot remote from the water to have deposited her eggs and spent her anxious weeks of incubation.

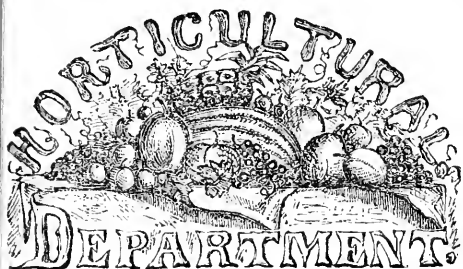
Limerick, N. Y., Aug., 1859.

E. MAYNARD.

REMARKS.—Our correspondent is evidently inclined to be facetious. We merely stated a fact which we had learned from experience. We find, however, that we are not alone in advocating that young ducks should be kept from the water for some time after hatching. C. N. BEMENT says: "Ducks, when first hatched, are always inclined to fever, from their pinion wings coming out so soon. This acts upon them as teething does on children. They should therefore be kept from everything that has a tendency to give them a sudden chill. To prevent this, we always give our young ducks as little water as possible. In fact, they should only have enough to allay their thirst, and should on no account be permitted to play in the water." BROWNE says: "The ducklings are no sooner hatched than the mother takes them to the water, where they dabble and eat at the very first, and *many of them perish*." This author strongly recommends that ducks' eggs should be placed under hens, as he says the young ducks have then a chance to get hardy on dry land, before they take to the water. LONDON, than whom there is no better authority, recommends confining them in a coop for a week or two before they are allowed to go to the pond.

Instinct no doubt leads the old duck to the water, as being most congenial to herself; but it does not give her the power of reasoning from cause to effect; and where animals are brought under man's control, for his benefit, their instincts must submit to be controlled by his superior reason. EDS.

SAVING CLOVER SEED.—Many farmers are deterred from saving clover seed for their own use, from the great trouble and expense of hulling and cleaning it. But in this section it is a common practice to sow the seed and chaff together, which is done by making a large, deep box of boards, on the top of an ordinary wagon box. The chaff is then shovelled in and hauled out to the field, and scattered over the surface from the wagon, as evenly as possible, with a straw or dung fork, just thick enough to give the ground a dark appearance. It is then harrowed in with a light harrow.—J. M., Woodhouse, C. W.



### T. G. YEOMANS' PEAR ORCHARD.

On the first of September, in company with Messrs. HOOKER, LITTLES and SEELYE, of this city, we had the pleasure of visiting the farm of the Hon. T. G. YEOMANS, of Walworth, N. Y.

Mr. YEOMANS is well known as an enthusiastic cultivator of fruit, especially of the dwarf pear. The village of Walworth evidently owes much to his arboricultural taste. Shade trees abound. The streets are lined with them—Maple, Elm, Horse-henut and Lindens, with here and there, in the ardens and grounds, a fine Norway Spruce, Hemlock, or other evergreen. What a beautiful country this would be in ten years, if we had one such man in every town!

Mr. YEOMANS' farm consists of one hundred and eighty acres. Of this he has one hundred and twenty-five acres in orchard. He has 3000 *Baldwin* apple trees in rows 20 feet apart, planted 40 feet apart in rows, in quincunx, with *peach trees* planted between the apples.

The peach trees will afford several crops of fruit before the apples come into bearing, and, being comparatively short-lived, they may be cut down without loss, when the apple trees are large enough to occupy the whole ground. Mr. YEOMANS, too, finds them beneficial in breaking the force of the wind.

The apple and pear trees are trained with long stems, (apples 5 to 6 feet, peaches 4 to 5 feet high,) so as to admit the free use of the plow and cultivator. Mr. Y. is decidedly opposed to the system of low training. The land under his apple and peach trees is as clear and mellow as a summer-fallow.

But it is of his Pear orchard we designed particularly to speak. Eight years ago he set out 3000 *Virgalieu* pear trees, 120 *Duchesse d'Angouleme*, and one to three trees of about thirty other varieties. They were all dwarf trees, that is, they were all worked on the quince stock. They were planted 10 feet apart each way.

The *Duchesse d'Angoulemes* have succeeded admirably. They occupy a little less than one-third of an acre. In 1857 they produced about eighteen barrels of fine fruit, which were sold at \$14 per

barrel = \$252, or \$756 per acre. In 1858 (a poor pear season) they ripened seven barrels; one barrel of which was sold for \$25, and the rest in New York, at \$17 per barrel = \$127, or \$381 per acre. The crop on these trees this year is very fine, and, at a low estimate, will be from 15 to 20 barrels.

These trees have been pruned thoroughly, but otherwise have received no extra care or cultivation. They are not trained as low as is usually recommended for dwarf pears, and the cultivation is performed almost entirely by the horse-hoe or cultivator. The trees have not been manured, and last year the land was planted with beans, which produced twenty-eight bushels per acre. This year no crop is grown between the trees, and the land is kept free from weeds and in admirable condition by the use of the cultivator. Trees which annually produce from \$381 to \$756 per acre may surely be allowed to occupy the whole land.

The 3000 *White Doyenne* or *Virgalieu* trees, planted at the same time and in the same field as the above, grew well, but the fruit was attacked with the disease known as "cracking of the pear." This disease (undoubtedly caused by a fungus) has attacked this variety for many years in different sections of the country; but except in a few cases, and in particular sections, little damage has been done by it in Western New York. In this neighborhood, the present season, the *Virgalieu* is very fine. But with Mr. YEOMANS it "cracks" badly, both on the dwarf and standard trees. He concluded, therefore, to bud over all his *Virgalieu* trees principally with *Duchesse d'Angouleme*, and a few *Bartlett's* and *Flemish Beauties*. This he did in 1855. They have done well, and the trees now look vigorous and healthy, and this year are bearing some fruit, affording good specimens. Of the thirty varieties, one or two of which were planted the first season, none have done so well as the *Duchesse d'Angouleme*, the *Louise Bonne de Jersey* being perhaps the next best.

The whole land occupied with this pear orchard is eight acres. The soil is a rather heavy sandy loam. The land is high and apparently dry, but, to the surprise of many, who think all high land must be dry, Mr. Y. has thoroughly underdrained it. Such an orchard of dwarf pear trees we have never before seen. But for the cracking of the *Virgalieu*, it would by this time have been a great success. We trust this beautiful orchard will escape all further mishap, and that the whole eight acres will be as productive and profitable as the one-third acre of *Duchesse d'Angouleme* is now and has been for the past two years. We see no reason to doubt it.

## FRUIT GROWERS' SOCIETY OF WESTERN N. Y.

The September meeting of the Fruit Growers' Society of Western New York was held at the Court House, in this city, September 22d. The exhibition of fruit was quite fine, especially of grapes. *Delaware* grapes were shown from the original vine in Ohio, by Messrs. BISSELL & SALTER; from Newburgh, N. Y., by CHAS. DOWNING; from Onondaga county, by JNO. LOWE, ripened early in September; and in this county, by several gentlemen. *Hartford Prolific*, *Concord*, *Clinton*, and *Diana*, were also shown fully ripe. *Isabella* and *Catawba* were also exhibited which had begun to color. Messrs. BISSELL & SALTER showed some hot-house grapes; a *Black Hamburgh* bunch, weighing more than a pound and a half, and finely colored. A seedling from the *Clinton* was also shown by WM. KING, of a beautiful golden color, delicious flavor, and fully ripe. There was a fair display of apples and pears, with some melons and other fruit.

## SUMMER PRUNING OF THE GRAPE.

After the usual formalities of organization, subject No. 1 was read by the secretary: "*Does summer pruning of the grape hasten the maturity and improve the quality of the fruit, and does it increase the size of the fruit?*"

A very full expression was made by the members, some being in favor of quite close pruning, and others preferring to allow quite free growth to the vine.

H. E. HOOKER thought that very much depended upon the mode of training and richness of ground, whether free summer pruning was beneficial. If trained upon trellises, it gives improved size and quality to prune. They must not be allowed to become a mere swamp of vines. Grapes which are starved are not hastened in maturity, or increased in size.

MR. TOWNSEND, of Niagara county, said that summer pruning must not be carried to such excess as to force the fruit buds of next year into premature development.

MR. SMITH, of Onondaga county—Some say, let nature take her course. This is well, if we commence that way. If we commence differently, we must continue so. In the natural soil, without any pruning, the vine gives a pretty good crop, but perhaps not quite as large fruit; but when we commence with highly manured soil and high culture, we must confine the vine to trellises, and it is necessary to summer prune; and the only question is to what extent.

P. P. BUSTOR, of Livingston county—To let the grape vine grow entirely its own way, will give us the poorest specimens of grapes. The habit of the vine seems to correspond to all other plants, when wild, *i. e.*, to set more fruit than it is capable of maturing well. DR. UNDERHILL cuts back half the bunches and thins out half of the bunches of fruit.

MR. HERRENDEEN, of Wayne county—The sap

goes first to the leaves, and on its return flow reaches the fruit. We must not summer prune so severely as to injure the health of the vine.

MR. MOODY, of Lockport—With proper summer pruning, the buds may be developed so as to bear surely every year.

MR. RINGUEBERG, of Niagara county, said his vines averaged sixteen pounds of fruit to the vine planted in rows four feet apart, and eight feet apart in the row. After fruit has set, take off the end of the bearing wood, leaving four leaves from the fruit.

MR. AINSWORTH, of Ontario county, had been led, by repeated experiments, to think summer pruning beneficial. His neighbor WINCOX thereby had large crops ten days before vines by their sides which were not pruned, and of quality decidedly better. Wood is greatly improved by summer pruning, and much better prepared to stand the winter.

MR. BRONSON had experimented upon an *Isabella* vine in a favorable location. The unpruned vine kept growing till frost came, but did not have a single ripe grape; while the vines all around which were summer pruned, ripened their fruit well.

MR. HOAG, of Niagara county, thought there was not much difference in the time of ripening; but judicious summer pruning produced a much larger crop.

## GRAPES FOR GENERAL CULTIVATION.

Question No. 2.—"*Can any other varieties of grapes beside Isabella be recommended for general cultivation?*"

MR. HOAG, of Lockport, thought highly of the *Hartford Prolific*, which ripened four weeks earlier than the *Isabella*; and when not grown in the shade, does not drop very badly from the bunch. The *Delaware* ripened with him 10th September, and was a better grape than any other. The *Concord* is a very fine grape; ripens after the *Hartford Prolific*, but is ten days or two weeks before the *Isabella*. The *Diana* ripens a few days after the *Concord*; a few berries on each bunch ripen very early, but they hang on finely, and all are sweet and fine flavored. He mentioned also the *Perkins* and *Rebecca*, and wished to hear other members as to the *Diana* and *Delaware*.

MR. BARRY wished to have the varieties tested thoroughly, and tried in vineyard culture, too, and to see if they prove in all locations hardy, productive, and to ripen early. The *Diana* possesses all the qualities that are required for a general, profitable, and popular grape. When ripe, it is of most delicious quality, and we can not be wrong in recommending it. No one can be sorry for having recommended the *Diana*. The *Delaware* is a most important acquisition. The *Concord*, he thought, is going to be a valuable grape, although nothing like so fine in quality. The *Hartford Prolific* is the earliest grape we have in our nursery, but it drops badly from the bunch. The *Northern Muscadine* is a little earlier, but drops worse. As yet would recommend only one variety, and that one is the *Diana*.

H. E. HOOKER felt we must be guided by experience. The *Delaware* we shall find, no doubt, a desirable grape. It is so hardy and so productive. On my own premises it is now fully ripe. On the



ven trellis where the *Isabella* is unripe and eat, the *Delaware* is good. Certainly I say it is a fortnight or three weeks earlier than *Isabella*. *Hartford Prolific* is the earliest that I have ripened. For my own use, it is good grape. *Concord* follows shortly after *Prolific*; and though I can not praise it highly, still it ripens a fortnight or so earlier than *Isabella*. *Rebecca* I have no confidence in, as it leaves burn so much in the sun. The *Diana* is one which I esteem very highly; a good deal very year I know it. The fruit is very rich and delicious, and the vine is a great bearer.

HOAG, of Niagara county—The *Delaware* is superior to the *Diana* in every respect the size of its berries. One of our two vines produced this year one hundred of grapes.

DOODY—The *Delaware* is very valuable for purposes; but no farmer ought to set out an it. The *Diana* is a strong grower, equally so and a greater bearer than the *Isabella*; jointed vine; more buds, and ripens earlier, I hang on the vines to the end of the very season, without dropping.

HODGE, of Erie county—This is an important one. With me, three-quarters of the seasons *Isabella* does not ripen. It is poor, insipid, and less. There is now a sort of grape mania for a better grape. Hundreds and hundreds of vines will be brought forward, and the public is sensitive to know if we have any good ones equal to the *Isabella*, and that ripen earlier. I can get such, they will be valuable. People think *Isabella* ripe as soon as they become a little pinkish; but the *Isabella*, when fully ripe, is as black—as black as any *Concord* I ever saw.

BARRY would mention that old favorite the *Clinton*—small, but never drops, ripens early, and till New Year's day. Is most easily propagated, will run and bear everywhere, whether planted or not. If we ever turn our attention to making, the *Clinton* will be the grape.

COVEY had kept the *Clinton* until the last year; and the longer they were kept, the better they were.

HOAG here remarked that the *Diana* was an excellent keeper.

MINER, of Monroe county, had raised the *Clinton* for five years—five hundred and more vines. In the same condition, upon same trellis, had found to produce as much weight as *Isabella*, but far superior in quality and earlier in ripening. Never ripen *Isabella* in same locations were the *Diana* ripened every year, and quality was far superior. I raised *Clinton* longer than *Diana*, but considered it worthless as a table grape, by the side of *Diana*.

The Society then, by a unanimous vote, recommended the *Diana* for general cultivation in Western New York.

#### AFTERNOON SESSION.

##### PEARS FOR GENERAL CULTIVATION.

Resolution No. 3.—“What varieties of pears have been found productive, and of good quality, in all parts of Western New York?”

B. HODGE, of Erie county, spoke of the *Bartlett* in the highest terms. The *Flemish Beauty* is a most excellent pear. When picked early and ripened in the house, it is very delicious. In Buffalo, the *Steven's Genesee* has proved a very fine pear, and the *Seckel* is universally admired.

Mr. TOWNSEND, of Niagara county—The *Louise Bonne de Jersey*, as a dwarf, exceeds any variety in productiveness that I have ever cultivated. The *Duchesse d'Angouleme* also, as a dwarf, is fine. The only fault I have to find with the *Vicar of Winkfield*, is its abundant bearing—bears so much that the fruit must be thinned. Among the new pears, I think the *Howell* promises to be one of our most valuable fruits. It is of large size, bright color, fine appearance, and of first rate excellence. The *Tyson*, where known, is a universal favorite, and an abundant bearer, either as a standard or a dwarf. As to the *Brandywine*, I don't know but that if I were compelled to select one variety, I should select the *Brandywine*. *Belle Lucrative*—any one who has ever eaten them, need not have a word said about them. *Osbond's Summer*—every body that knows it will have it. Bears fine crops. I have only mentioned such sorts as I have tested from six to ten years, and have invariably found them to be of the very finest quality.

Mr. AINSWORTH, of Ontario county—The *Tyson* is a very fine pear; bears a full crop, and is a hardy tree. The *Bartlett* is very fine, and the tree bears young. The *Flemish Beauty* has one fault, and that is, that it sometimes rots at the core. *Belle Lucrative* is very fine and sweet. The *Seckel* has succeeded in our section well. Mr. DIXON had the first tree near us, and it has always borne each year. Don't think there is any tree will excel them as to quantity (unless perhaps *Bartlett*), and its fruit sells for \$16 per barrel. The *Virgalieu*, at Canandaigua, and in the Wyoming valley, does not crack; fruit very fine, and sells at \$22 per barrel. Trees bear very full. *Louise Bonne de Jersey* has done well with me. I have a tree now twelve years old with a barrel of pears on it. The fruit is one-third larger on dwarf than on standard trees.

Mr. BARRY thought this question was a very difficult one to decide. We need trees that are hardy, productive, and free from blight; and my opinion is in favor of the *Duchesse d'Angouleme*, *Louise Bonne de Jersey*, and *Bartlett*. The *Virgalieu* in one place in our grounds all cracked one year, and next year they did not one. Notwithstanding all the failures, I still regard it as one of the best we have. It will sell at an enormous price—twice that of any other. I would not leave it out. *Beurre Giffard*—fine, if gathered early. *Doyenne d'Ete*. *Rostiezer* does well everywhere, and does not crack. *Tyson* is a superb tree, and is worth growing for its beauty, while its fruit is one of first quality. *Flemish Beauty* is another of the No. 1 varieties. *Howell*, *Belle Lucrative*. *Beurre d'Angon* keeps a month longer than the *Virgalieu*. The *Sheldon* is one of the finest of all pears, and a native of Western New York, beside; fruit most delicious. Although it wont grow on quince, it is a superb grower on pear. For winter pears, I would recommend two—*Lawrence* and *Winter Nelis*.

H. E. HOOKER—The list of pears is so good—unexceptionable, in fact—that I can not add to it.

(To be continued.)

## PLANTING TREES, &amp;c.

MANY of our readers are no doubt expecting this fall to plant fruit trees, ornamental trees, shrubs, &c., &c.; and a few words at this time, which we shall say to you, may be of assistance to some who have not had much experience in dealing with trees.

Taking it for granted that those who have ordered trees of traveling agents have satisfied themselves that they are, through them, dealing with honorable and responsible nursery firms, and not with those who merely make it their business to buy trees and vend them again, and who seldom visit the same neighborhood twice, and are utterly irresponsible; in the first place, when the trees are delivered to you, examine them for yourselves, and see if they are healthy and sound. This you will have no trouble in determining. Any one can satisfy himself of the condition a tree is in, if he will attend to it. Is the bark sound and green?—the roots, when they are cut, are they of a clean lively white? If so, your trees are alive; and if otherwise agreeing with the terms of your contract, give the nurseryman you deal with the credit of performing his part, even should you afterward lose them. At the time of delivery, the responsibility of the nurseryman to you, in reference to your purchase, ceases; and failures after this time you must attribute to yourself, your soil, climate, or some other causes, and not blame the man that has raised the trees.

We allude to this point now, because, nurserymen are often reproached, and suffer unjustly.

If you reside in a very severe northern climate, it may happen that before your trees reach you they may have been exposed to frost. If so, let them remain packed, and put them in a cellar where they will gradually thaw out, and afterward plant or heel them in. If by some delay on the route they are somewhat dry, you need have no fears of losing them; they may be even so dry that their skin is much shrivelled, and by burying them up completely, three or four inches under ground, in the course of a week or ten days they will become as fresh as if just dug. If you receive your trees in time, and have prepared land for them, plant as soon as received; but if the land is not in a suitable condition, set them in the ground temporarily, or "heel them in," as it is technically called, until you have had time to thoroughly prepare your land in the spring.

Of the preparation of the soil for trees, we do not propose to speak, assuming that every one who plants a tree, with the expectation of its living and thriving, will see that his land is both rich and dry, either naturally or artificially, and well worked up.

One remark is applicable to all our fruit deciduous ornamental trees, when about planted. If you desire them to make a healthy vigorous growth, cut back all the limbs severally. Often you may even take off every limb and to advantage, especially with apple, peach, and trees. Cherry and pear trees, cut off every within six or eight inches of the body. The beauty of form of ornamental trees and shrubs is greatly promoted by this close pruning at the base. If this operation is neglected, expect only the worst results. The young tree, excited by the warmth of the spring-time sun, expands every bud and unfolds so large an extent of leaf-surface that the drop of sap is exhausted before the ground is sufficiently warm to quicken the roots into action to supply the waste which is going on. After a few inches of wood has been made, growth ceases for the season; and if left to itself, this kind of things often continues to exist a number of years. We have watched trees—and have no doubt can call up similar instances—that actually appear to grow smaller, and, relatively to vigorously growing trees, this was true of them. The evil we have here spoken of is a great impediment to the culture, and is the cause of a large proportion of the failures of trees. Having properly pruned the top of the tree, now examine the roots, and you will always find, to a greater or less extent, broken and bruised roots. Cut off these injured roots clean and smooth, and your tree is then in better condition to plant.

In holes dug large enough to afford the tree ample room, and to permit the tree to stand deep or a trifle deeper than originally, place the tree and fill in a few inches of fine soil, and pour in a half pailful or so of water, and work the roots about in the mud until it has settled down about every part, when the remainder of the hole may be filled in to the level of the ground. If the tree is left now, although what you have done has been well done, many accidents may yet befall it. The winds of fall, winter, and early spring, usually fierce and destructive; before spring the tree will have shaken it a thousand times to the extent of every root, and perhaps caused it to vibrate itself loose in the ground, with a hole all around the trunk, so that the roots have been partly frozen in this way. Every tree, therefore, as soon as planted, should be staked, so that there will be no possibility of its being swayed by the wind. A mound of earth, one and a half or two feet high, be raised about the tree, which will answer the same purpose as the stake, and also prevent

being thrown out of the ground by the  
ing and thawing in early spring, which fre-  
proves very destructive before the mis-  
discovered.

in trees are staked and not banked up, they  
be examined frequently in early spring; and  
roots are found exposed by the action of the  
they must be immediately covered.

es planted in the fall, in the more northern  
and Canadas, however hardy they may be  
ed to be, should be slightly protected by  
or coarse litter thrown loosely over or bound  
them.

a planting of strawberry plants seldom is suc-  
ft and should you have ordered some choice  
es to come with your trees, plant them nicely  
ox of sandy earth, and place them in your  
ain in the light of a window. Sprinkle lightly  
aw days, until they have accustomed them-  
e to their situation, and then withhold water  
y during winter, unless you should find the  
tting very dry, when it may be given suffi-  
to keep the soil slightly moist. In this way  
ay preserve the plants until you can put  
nto the ground in the spring.

y of the new hardy grape vines are grown  
e nurserymen in pots, and sent out with the  
f earth attached. When planting such vines,  
out all the dirt, and spread out the roots in  
ble.

ese general directions may be of benefit, if fol-  
, and may also suggest to some many other  
ions which can be profitably bestowed on  
g trees.

OWING OLD ORCHARDS.—How many old or-  
s there are that have been seeded down and  
and suffered to lie in grass till the trees pro-  
cracked, gnarled, and worthless fruit—and  
of that. Such orchards should be plowed—  
s deep as may be, without disturbing too many  
e roots. The present month is a good time to  
rm this labor. The earlier, the better. Fall  
ing and summer-fallows are as good for fruit  
as for any farm crop. Do not neglect this.  
ll pay—pay double, and treble.

RESERVING DAHLIA ROOTS.—Take up the roots  
dry day, after the tops have been killed by  
. Let them remain exposed to the sun and  
ill quite dry. All the soil should be shaken  
them. When quite dry, put them on a shelf in  
cellar, or in a box or barrel of dry sand. The  
e of the variety should be written on a wooden  
, and attached to the root with wire.

PEAT, SWAMP MUCK, &c.—These substances—  
containing, as they do, in the dry state, some 70  
per cent. of organic matter—are of great value to  
the horticulturist. They are most beneficial on dry  
sandy soils, which are often deficient in organic  
matter. It is well known that these substances not  
only supply plants with food, but also render the  
soil more retentive of moisture. Nearly all garden  
vegetables require more carbonaceous matter in the  
soil than wheat and other cereals. The same is  
probably true of fruit trees, and especially of many  
kinds of evergreens.

The best way to prepare swamp muck, peat, &c.,  
is to throw it up to dry, and then compost it with  
horse-manure, and with rich, animal substances,  
that ferment rapidly. The ammonia developed by  
the fermentation of these substances neutralizes the  
acid of the muck, and a valuable manure is the  
result. When it is not convenient to do this, a  
little lime or ashes may be mixed with the muck, in  
order to neutralize the acid and induce fermentation.

DWARF PEARS.—We understand that Mr. PINNEY,  
of Clarkson, N. Y., has *Louise Bonne de Jersey*  
pear trees, on the quince, seven years from plant-  
ing, some of which produce this season three bar-  
rels each. He estimates his crop of *Louise Bonne*  
at three hundred bushels. He asks \$6 a barrel for  
them. Mr. P. has embarked extensively in the  
culture of dwarf pears; and we are glad to hear  
that he is so well satisfied with the results, on the  
whole, that he is about to set out more trees. He  
thinks the *Louise Bonne de Jersey* one of the most  
profitable varieties.

BARRELS FOR FRUIT.—Everything in contact with  
fruit should be clean and sweet, and the vessel in  
which it is placed should be dry and tight. Old  
flour barrels should not be used, unless well washed  
and dried, as the particles of flour left in the barrel  
will mould and impart to the fruit an unpleasant  
odor and flavor. Old lime barrels, it is said, are  
excellent for this purpose—the lime absorbing the  
vapor and gases. If this is so, a little fresh slaked  
lime scattered on the bottom, sides, and top of the  
barrel, would be beneficial.

APPLE TREES ON HIGH LAND.—L. S. STANDRING,  
of Denmark, Lewis Co., N. Y., states that they  
can not raise fruit in that locality, excepting red  
plums, gooseberries, raspberries, &c. He has re-  
peatedly tried to raise apple trees but has uniformly  
failed. But on the uplands, two miles west, where  
they get snow one to two weeks earlier in the fall,  
and later in the spring, they succeed tolerably in  
raising fruit.

## Ladies' Department.

### ORIGINAL DOMESTIC RECEIPTS.

[Written for the Genesee Farmer by various Correspondents.]

**BAKED QUINCE.**—Bake until perfectly tender. Pare, core, butter, and sugar while hot, thoroughly mix. Excellent. With care in picking and storing, quinces may be saved for baking until mid-winter.

**SWEET POTATO PIE.**—Boil the potatoes very soft, then peel and mash them. To every quart of a pound, put one quart of milk, three table-spoonfuls of butter, four beaten eggs, together with sugar and nutmeg to the taste. It is improved by a glass of wine.

**MUFFINS.**—Mix a quart of wheat flour smoothly with a pint and a half of lukewarm milk, half a tea-cup of yeast (family), a couple of beaten eggs, a heaping tea-spoonful of salt, and two table-spoonfuls of lukewarm melted butter. Set the batter in a warm place to rise. When light, butter your muffin cups, turn in the mixture, and bake the muffins light brown.

**SHREWSBURY CAKE.**—Stir together three-quarters of a pound of sugar, and half a pound of butter. When white, add five beaten eggs, a tea-spoonful of rose-water, and a pound of flour. Drop it with a large spoon upon flat tins that have been buttered. Sift sugar over them.

**TUNBRIDGE CAKE.**—Six ounces of butter, six of sugar, three-quarters of a pound of flour, two eggs, and a tea-spoonful of rose-water. Stir to a cream the butter and sugar, then add the eggs, flour, and spice. Roll it out thin, and cut it into small cakes.

**MEASURE CAKE.**—Stir to a cream a tea-cup of butter, two of sugar, then stir in four eggs beaten to a froth, a grated nutmeg, and a pint of flour. Stir it until just before it is baked. It is good baked either in cups or pans.

**MUFFINS.**—One quart of milk, three eggs, one cup of melted butter, five table-spoons of yeast, one tea-spoon saleratus, stir in flour until it is a thick batter. To be baked on a griddle.

**ESSENCE OF CELERY.**—Steep an ounce of celery seed in half a pint of brandy or vinegar. A few drops of this will give a fine flavor to soups and sauce for fowls.

**FRUIT CAKE.**—One pound and a half of flour, one pound of sugar, one-fourth of a pound of butter, one pint of sweet milk, six eggs, fruit and spice as much as you please.

**JELLY CAKE.**—One pound of butter, one of sugar, one of flour, twelve of eggs, nutmeg and rose water. Butter a dinner plate and bake thin; trim the edges with a pen-knife.

**FRENCH LOAF.**—One pound of flour, one of butter, one of sugar, gill of milk, gill of brandy, gill of wine, seven eggs, as much fruit as you please.

**COOKIES.**—Five cups flour, two of sugar, one of butter, one tea-spoon saleratus, three eggs, and caraway. Baked thin.

**A RICH CORN BREAD.**—Take two quarts meal, one quart wheat flour, a little salt, and eggs; add sour buttermilk enough to form a batter; mix well; then add two tea-spoonfuls soda dissolved in a little warm water. Stir it and pour it into greased pans, so that it will be about two inches thick when baked. Bake hot oven till done—say about half an hour.

**TO MAKE GOOD BREAD.**—First, get good flour. Second, take one quart of flour, scald it by boiling over it some boiling water. Then for each quart of bread you want to make, add one pint of water; stir in flour till it is as thick as can conveniently be stirred. Then put in one half pint of good hop-yeast for every four loaves. Set it to rise over night. In the morning make up by a flour till it is stiff dough. Knead well, mould into loaves, and, when light, bake it well, and you have good bread.

**MINCE PIE, SALT BEEF.**—Boil the beef till tender, take from the bone, and chop fine; to every pound of meat, add one pound and a half of apples, pared and cored. Chop both together until the apples are fine, then to every five pounds of the mixture, add two tea-spoonfuls of pepper, two table-spoonfuls of allspice, half a pint of raisins, one cup of vinegar, one of molasses, one of dried blackberries, stewed, and one pint of sweet cream.

**PUMPKIN PIE.**—Halve the pumpkin, take out the seeds, wash it clean, and cut it into small pieces. These are to be stewed gently until soft, drained, and strained through a sieve. To every quart of the pulp, add three pints cream or milk, six beaten eggs, together with sugar, mace, nutmeg, and ginger, to the taste. When the ingredients are well mixed, pour them upon pie-plates, have a bottom crust, and bake forty minutes in a hot oven.

**BAKED BEANS.**—To have a nice dish of baked beans, parboil half an hour, adding a little soda; pour off the water and rinse them. Add a pound of pork already notched, cover them with water, let them boil an hour, adding a tea-spoonful of sugar to every quart of beans. Then put them on a baking dish, and let them brown nicely.

**INDIAN TOAST.**—Place two quarts of milk over a fire. When it boils, add a spoonful of flour, thicken, a tea-spoonful of salt, a small lump of butter, two table-spoonfuls of sugar. Have ready a deep dish six or eight slices of light Indian bread toasted. Pour the mixture over them. Serve hot.

**TO MAKE A BOILED INDIAN MEAL PUDDING.**—To every quart of buttermilk, two eggs, one tea-spoonful of soda, add meal enough to make a thick batter, tie it tightly in a bag, drop it in a kettle of boiling water, and let it boil one hour. Eat it with sugar to suit the taste.

**FOR A BAKED PUDDING.**—Set to boiling one quart of sweet milk, then add two eggs well beaten, three table-spoonfuls of Indian meal and one of flour. Bake it three-quarters of an hour. Serve with cream and sugar.

**COMMON CAKE.**—One cup of sugar, two of flour, one tea-spoon of saleratus, three eggs, and flour to make it stiff.



### New Advertisements this Month.

General Agency—William Lyon Mackenzie, Toronto, C. W.  
 Entry made Easy—Jas. Challen & Son, Philadelphia, Pa.  
 Lake Leroy's Nurseries, Angers, France—F. A. Bruiguero,  
 New York.  
 Nursery—Charles Moulson, Rochester, N. Y.  
 Shepard's General Forwarding and Commission, Horticultural,  
 City, and Seed Agency—Wm. P. Sheppard, New York.  
 Mercantile College—G. W. Eastman, Rochester, N. Y.  
 Rochester and Lake Avenue Nurseries—J. Donnellan & Co.,  
 Rochester, N. Y.  
 1860 a Year—J. W. Bradley, Philadelphia, Pa.

NOTES ON THE WEATHER AND SEASON FROM AUGUST 15TH  
 SEPTEMBER 16TH, 1859.—The last half of August gave  
 a delightful weather. The showers were adequate,  
 the nights were dewy, many of the days full of sunshine,  
 the star-light nights, and the heat below the average,  
 very little hot weather. The mean temperature was  
 being 2.5° below the average; the average of the  
 was 68.6°, or 2° below the mean for twenty-two years.  
 Massachusetts on the 17th was a white frost in towns  
 Boston, but none about us to do the least injury.  
 frosts have occurred in New England and all the North-  
 states in each of the summer months.

The first half of September has been cooler still, the  
 average being 57°, or 7.3° below the mean for twenty-two  
 years. The rain has been but little. Heavy frost occurred  
 in Michigan on the 7th, and in this vicinity on the 14th  
 and 15th mornings. At Marquette, on Lake Superior, on  
 the 1st and 2d, were rain and snow and frost; some snow  
 fell in the northern part of this State in the first week  
 of September. Indeed, this has been the coldest first  
 of September here in the last twenty-six years. The  
 weather colder was in 1836, when the average was near 50°,  
 that two degrees warmer than the present. This low  
 temperature is the more striking as we know that the  
 average has been above 70° in some years. Weather very  
 regular. On the 11th, at sea in a storm, the Persia had  
 a gale as well as rain, and tempest of west wind. There is  
 no doubt that the cold has been uncommon for this part  
 of the year over a great extent of our country.

The progress of vegetation has been retarded, and  
 Indian corn, so much put back by the frosts of June, has  
 ripened somewhat, in many places, by the frosts of the  
 first half of this month. In Michigan, both Indian corn  
 and buckwheat suffered considerably by the frost of the  
 15th and the same result took place in some localities in  
 the vicinity, in the cold of the 15th, so that Indian corn  
 was being cut up by the roots and stacked in small masses, as  
 ought to be, to ripen the better. Where the corn has not  
 been touched by frost, it may be mature by the expected  
 middle of the last half of the month. Admitting all the  
 backs, the amount of corn to be harvested will be  
 adequate, and the supply adequate for man and beast.

The aurora borealis was magnificent on the evening of

August 28th, and at one to three o'clock on the morning  
 of the 29th. The same was repeated on September 1st,  
 in the evening, and continued on the morning of the 2d.  
 On this day it re-appeared in the evening, and was splen-  
 did next morning, the 3d, and renewed again in the even-  
 ing, when it was magnificent in its various colors of green,  
 white, red and crimson, in its cloud and pillars, and its  
 corona a little south and east of the zenith, and in the  
 wide and rapid coursecutions of light upward toward the  
 corona. The whole southern horizon was overspread with  
 it. It extended from regions north of Quebec to the  
 Gulf of Mexico, and the Islands of Bermuda and Cuba,  
 and from the Atlantic to west of the Mississippi. The  
 aurora of August 28th and 29th appeared in England, and  
 was said to have been unsurpassed in beauty and splendor  
 for many years, if ever; the language also of American  
 observers.

THE FRUIT TRADE—PROSPECTS.—A considerable quantity  
 of apples and plums have been sent from this city to Can-  
 ada, during the past few weeks. Bartlett pears have also  
 been sent there—dealers paying \$10 a barrel for them.

In this section, the plums are more abundant than they  
 have been for many years. They sell for 75 cents to \$2.25  
 per bushel.

The peach crop this year is a failure in Western New  
 York. The trees are now very thrifty, and look as though  
 we might expect a large crop next year.

LARGE TIMOTHY.—A correspondent in Lewis County,  
 N. Y., writes that he found a head of timothy in his  
 meadow, this season, which measured eleven inches in  
 length; others measured eight and eight and a half inches.  
 He asks: "Have any of your correspondents found any  
 better?"

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY  
 FOR 1860 is now nearly ready. We think it will be found  
 the best volume yet issued. We have room for a few  
 appropriate advertisements. They should be sent in  
 immediately.

HOW TO REMIT.—Money for the *Genesee Farmer* may be  
 sent by mail at our risk. You need not "register" your  
 letter. All current bills taken at par. Small sums may  
 be sent in three cent postage stamps.

ERRATA.—In my last communication, page 254, Sep-  
 tember number, I think I wrote of the *Astrachan* apple,  
 "the best early apple." Also, in regard to the *Dorchester*  
 blackberry, "first fruit being small," &c. D. W. L.

It is thought that the wheat crop in Onondaga county,  
 N. Y., will average twenty bushels per acre—the largest  
 ever grown in the county. Mostly *Mediterranean*, but  
 of excellent quality.

A GENTLEMAN in Erie county informs us that, owing to  
 the drouth and scarcity of grass, cows have been sold in  
 his neighborhood for \$10 each.

THE WOOL CLIP in Michigan this year is estimated at  
 three and a half million pounds; that of Wisconsin at  
 one million pounds.

The cultivation of tobacco is rapidly extending in this  
 section. The crop this season is very large.

THE GENESSEE FARMER FOR 1860.—On the last page of this number will be found a List of Cash Premiums for the greatest number of subscribers for the *Genesee Farmer* for 1860, sent in by the 15th of January.

In order to induce those of our friends residing at post offices where we have now few subscribers, to compete for these premiums, we have determined to send the *Genesee Farmer* for the two remaining numbers of this year (November and December) and the entire volume of 1860, to all who subscribe before the first of December, at the usual rates for the year, (50 cents), or to those who form clubs of eight or more, at *forty cents* each!

Will not all our agents and friends take hold of this matter at once? All such subscribers will be counted in determining the award of Premiums. Now is the time to commence getting names, before other agents commence canvassing. Judging from the past, we are sure the agents and friends of the *Genesee Farmer* will not be behind hand. Recollect, *the volume for 1860, and the two remaining numbers of this year for 40 cents each!*

“ONLY FIFTY CENTS A YEAR.—Let every one who knows the fact, *tell his neighbor* that he can now get, in your agricultural paper, for fifty cents, what at the lowest calculation is worth *twenty dollars* a year were we deprived of the paper. *Sound it abroad!* ONLY FIFTY CENTS A YEAR!”

So wrote a correspondent of the *Genesee Farmer* in 1845. The advice was good then. It is good now. “Sound it abroad! Only fifty cents a year!” Let every one “*tell his neighbor.*”

The *Genesee Farmer* was then so cheap as to excite surprise. How much more so now! It then contained only 16 pages; now it contains 32 pages—and more than as much again matter. “*Sound it abroad!* ONLY FIFTY CENTS A YEAR!” Let every man “*tell his neighbor.*”—that by subscribing now *he can get the two remaining numbers of this year and the volume for 1860, for only fifty cents.*

PREMIUMS FOR THE HALF VOLUME.—Our friends will bear in mind that the time for competing for the Premiums for the greatest number of subscribers for the current half volume of the *Genesee Farmer*, closes on the fifteenth of this month. Send us all the names you can, so as to reach us on or before that day. The names of the successful competitors will be announced in the November number, and the money immediately paid. Our friends have done nobly. They have sent in nearly six thousand new subscribers for the half volume! We return them our sincere thanks. Words can not express our gratitude. We will endeavor to manifest it by renewed efforts to make the *Farmer* worthy of the support of such true and disinterested friends of the cause of agricultural and horticultural improvement.

FOURTEEN MONTHS IN THE YEAR.—To new subscribers who send us fifty cents before the 1st of December, we will send the two remaining numbers of this year (November and December) and the entire volume of the *Genesee Farmer* for 1860! Will all our friends—will you, kind reader—inform your neighbors of this liberal offer? See the last page for a still more liberal offer to those who form clubs, and also for a List of Cash Premiums to be awarded to those who send in the greatest number of subscribers.

### Read what is said of the Genesee Farmer.

In this community, the *Genesee Farmer* stands need of praise, for it has a great popularity.—*Advocate Fredonia, N. Y.*

This valuable monthly should be in the hands of farmer. It will pay its cost many times over.—*Springville, N. Y.*

We call attention to one of the oldest and most useful agricultural papers in the United States. Mr. E gets up one of the best monthlies that comes to our—*Daily Democrat, Chicago, Ill.*

The *Genesee Farmer* is a name as familiar to those as it is to us. The *Farmer* is a tip-top monthly, published by JOSEPH HARRIS, at the low price of fifty cents a—*Weekly Advertiser, Polo, Ill.*

The *Genesee Farmer* is undoubtedly the cheapest cultural journal in the world, and we think better lated to promote the interest of farmers than any work of the kind within our knowledge.—*People's Bluffton, Ind.*

This old and valuable farmers' paper is one of the best agricultural journals published. There is scarce subject that would interest the farmer but what is to of in its columns. Every farmer should have this official.—*Jacksonian, Pontiac, Mich.*

The frequent and copious extracts, which we meet in our reading, from the *Genesee Farmer*, show the great appreciation with which this journal is regarded. We recommend this as one of the oldest, most reliable practical journals of its class.—*Enterprise, Ell Mills, Maryland.*

This old and popular favorite is promptly on our side filled with matter interesting and instructive to agriculturist. It is one of the oldest publications of kind in the Union, and ranks second to none. The price at which it is published—only fifty cents a year places it within the reach of every one.—*Livingstonian, Genesee, N. Y.*

We desire to call the special attention of our friends to that old and well known agricultural journal the *Genesee Farmer*. It is a paper that can not be highly commended—eminently practical and scientific and abounding with matter interesting and useful to farmer and fruit grower. It has been published in Rochester for twenty-eight years.—*Dispatch, Pittsburg, Pa.*

The *Genesee Farmer* is a handsome and tastily gotten up monthly of thirty-two pages, making, at the close of a year, a volume of three hundred and eighty-four pages excellent form for binding. We commend this paper to our readers. It has a larger circulation than any similar journal in the world, which is an evidence of worth. It is the oldest, the cheapest, and the best.—*Tribune, Hornellsville, N. Y.*

The *Genesee Farmer* has for twenty years occupied high rank, if not the foremost, in the list of American agricultural journals, and we would desire to bring the notice of the farmers of Canada as one worth their patronage. The receipts in the Ladies' Department are alone worth the cost of the paper. The most recent review of the principal markets in the United States, Canada, and England, is a valuable feature.—*Daily Kingston, C. W.*

The *Genesee Farmer* is the oldest and probably the cheapest and best agricultural publication in the country. It is standard authority with farmers; comes from every garden of the Western World; and its columns filled with precisely such practical matters and original suggestions as every real farmer needs to be in possession of. It costs only fifty cents a year, and is really as valuable as a farmers' manual than most of the two dollars papers in the country.—*Advertiser, Norway, Maine.*

We remember to have had the reading—twenty years ago or more—of what was then nearly the agricultural paper in the United States, the old “*Genesee Farmer.*” Well, here are before us two numbers of a first-class publication, and brimfull of good things for the farmer, the gardener, and the fruit-grower. Success to us, to the *Genesee Farmer*—the pioneer farmer's publication in the country. Long may it continue to show the benefits over the land.—*Representative, Hamilton, Ill.*

## Inquiries and Answers.

**THE VINES — UNDERDRAINING — TRAINING.** — The interest manifested in the raising of grapes and cultivation of the vine in this country, I hope will be a sufficient excuse for my asking the editor, or one of the numerous correspondents of the *Genesee Farmer*, two or three simple questions upon the subject of their culture, treatment, &c. And though at first it may seem to be asking too much, simply for the gratification or instruction of one subscriber, yet the undersigned is inclined to think that the information is just what many other readers of the *Farmer* would be glad to have nearly every individual at this day, who has a farm, or patch of ground, though only large enough for a garden, either has his vines, or contemplates their cultivation at no very distant day.

All the essays and instructions, coming under the name of the undersigned, on the preparation of the soil for the grape, much stress seems to be laid upon the necessity of draining, as if no soil was suitable for the cultivation of the vine unless thoroughly drained. Now if the soil is wet, or the soil naturally heavy, no one would dispute that what draining would be indispensable. But where I have a farm, or a garden, for instance, with a gravelly loam soil resting upon a bed, at the depth of one and a half or three feet, of what is usually termed a "pan," with a mixture of stone and gravel, and on the surface of which water never stands except for a few months after hard and heavy rains. In such case, would any drainage be necessary? Then suppose I have a border of the edge of my garden, with such a soil as described above, where I wish to set a few vines of some of the best varieties, at the distance of eighteen feet apart, and I prepare the soil artificially before setting, and set under these circumstances, how should they be trained, and how trained?

I have an *Isabella* growing, that, at the age of four or five years, after being well rooted, was laid down in a row extending each way from the parent root, and covered so as to leave the tips out, forming canes at the distance of twelve or fourteen inches from each other. Now I wish to know how these should be trimmed and how trained, with a view to the health of the vine and the raising of its fruits?

These interrogatories have been suggested, Messrs. Editors, from the fact that it has seemed to the undersigned, though perhaps erroneously, that nearly all those who have recently written on the subject, start upon the supposition that your land is cold and wet, and that you are cultivating for a vineyard. Hence I have no doubt that the information sought, would be interesting to a large share of your subscribers, who unfortunately are compelled to take rank among those who have been denominated "greasy mechanics and small fisted farmers." — *PERRY, Collins Centre, N. Y., Sept. 12th, 1859.*

The correspondent's inquiries are pertinent, and such as interest a large class of the community, as grape-raising is becoming an extensive and valuable branch of the horticultural interest of the country, and too much attention can not be paid to the various operations which are requisite to the production of this fine fruit.

The soil, mentioned above, is the best which can be selected for growing the grape, and without underdraining such soils, if otherwise well dressed and cultivated, will yield generous crops of grapes; and we should not hesitate to plant large vineyards on such soil, and expect profitable returns; but, there are few soils, that are so naturally dry and warm as to render underdraining unnecessary. Land well underdrained is much earlier in the spring, which is a quality that can not be too highly prized in our northern climate, where the summers are never too long for the perfect maturation of the grape. The quality of the fruit and the wine is also greatly superior when produced on warm dry soils. This difference is so great, that, in France, experienced vintners can decide, from the flavor of the wines, at what altitudes the grapes from which they have been made were grown.

The mode of training grape vines, which those who have had most experience coincide in adopting and recommending in this climate, is that now well known as the *renewal system*, and which we have illustrated in the early numbers of the *Farmer* this year, and in the *Rural Annual* of 1858.

**OSAGE ORANGE HEDGE — IRISH POTATOES.** — (MRS. EMILY J. GROVER, Richmond.) The plan of growing Osage Orange hedges is briefly this:—Assuming that the soil where the hedge is to stand has been previously well manured and deeply pulverized, the plants, having been shortened at both ends, so that the roots are not more than five or six inches in length, and the tops about an inch, should be planted with a dibble or spade, from four to six inches apart along a straight line. The first and second summers the only attention necessary will be to hoe frequently and keep entirely free from weeds. In the spring of the third year, or the second spring after planting, cut down every plant even with the surface of the ground, which will cause a number of shoots to start out directly from the root of the plants. About the latter part of June of this season, the hedge should be cut the second time, from four to six inches above the surface of the ground; and in the following spring cut it from one end and a half to two feet high, varying somewhat with its thickness. In June of this year, clip it into its final form, which should be pyramidal, or with a wide base tapering gradually to the top. Should it be desirable to increase the height or width after this, it can readily be done at the season of clipping.

We can recommend, as an excellent and productive potato, the *English Fluke*. We are not acquainted with the *White Foxite*.

**PROPAGATION OF FLOWERING SHRUBS.** — (LUCY A. MANNING, Danby, Vt.) The double-flowering Almond is usually budded on the stalk of the common Almond or Peach. Pæonies are readily grown from seed, but it will be found difficult to produce such as are of any value in this way. Honeysuckles may be grown by layers or cuttings. Running Roses you may be able to root from cuttings, in the summer, after the wood is partially hardened, by placing them under bell-glasses; but they will require much care, and you will probably make many failures before you succeed. The cuttings should be made from four to six inches in length, being cut to a bud at their base, and with the leaves attached at the upper ends. Plant them in pots or boxes, or even in the ground, where the convenience of shade may be had, and cover with a bell-glass. Sprinkle or syringe them every evening, and do not admit the sun to shine upon them until they are rooted, when they may be gradually exposed.

We have sent you a catalogue of one of our leading nurseries, in which you will find such other information as you ask for.

**CATAWBA GRAPE IN IOWA.** — (M. THOMAS, Kosauth, Iowa.) The *Catawba* grape can be grown and ripened in your locality, though it will seldom be in such perfection as it attains in a more southern climate. It will be well to give it a trial. The *Isabella* will ripen more perfectly with you; and we would also recommend *Concord*, *Diana*, *Delaware*, *Rebecca*, and *Hartford Prolific*.

Is there any cure for ring-bone on horse's feet? — L. F., Delaware Co., Ind.



**POTATO SEED.**—Will you or some of your correspondents be so kind as to inform me the best mode of preserving the seed of potatoes, the proper time of gathering the balls, &c.? Our potato tops hang quite full of balls. For any information I will be much obliged.—C. R. S., *Pinekey, N. Y.*

The largest and ripest balls may be gathered in September, or as soon as they turn yellowish, the seeds taken out, washed from the pulp, and dried, and kept till the following spring, when they may be sown in drills in a warm situation and rich soil, in May. When the young plants are two or three inches high, thin out to five or six inches apart in the drills. A very few small potatoes will be produced the first year. These, if planted the next spring, will produce tubers of a sufficient size to determine their properties. Sometimes a third year's growth is necessary to decide their fruit satisfactorily.

What is the best method of storing carrots and mangel wurtzel, through the winter?—O. P. St. John, *St. Catharines, C. W.*

Can any of your correspondents give me a cure for poll evil?—C. G. N., *Palestine, Ia.*

#### Notices of Books, Pamphlets, &c.

**TENT AND HAREM.** Notes of an Oriental Trip. By CAROLINE PAINE. New York: D. APPLETON & Co. Price \$1.

**WALTER TORNSLEY;** or, A Peep at the Past. By the author of "Allen Prescott," &c. New York: HARPER & BRO'S. \$1.

**AMERICAN WIT AND HUMOR.** Illustrated by J. McLENNAN. New York: HARPER & BRO'S. Price 50 cents.

**THE LIFE OF JABEZ BUNTING.** D. D., with Notices of Contemporary Persons and Events. By his son, THOMAS PERCIVAL BUNTING. Vol. 1. New York: HARPER & BRO'S. \$1.

**LIBERTY AND LIFE IN AMERICA;** or Sketches of a Tour in the United States and Canada in 1857-58. By CHARLES MACKAY, LL. D., F. S. A. With ten Illustrations. New York: HARPER & BRO'S. Price \$1.

**LOVE (L'Amour).** From the French of M. J. MICHELET. Translated from the fourth Paris edition, by J. W. PALMER, M. D., author of "The New and the Old," &c. New York: RUDD & CARLETON. Price \$1.

**BREAKFAST, DINNER, AND TEA,** viewed Classically, Poetically, and Practically. Containing numerous curious Dishes and Feasts, of all Times and all Countries, besides 300 Modern Receipts. New York: D. APPLETON & Co. Price \$1.50.

**CHAMBERS' ENCYCLOPEDIA:** A Dictionary of Universal Knowledge for the People, on the basis of the latest edition of the German Conversations Lexicon. Illustrated by Wood Engravings and Maps. Part 5. New York: D. APPLETON & Co. Price 15 cents per number.

All the above books are for sale by D. M. DEWEY, of this city.

**AQUECHEEK.** Sketches of Foreign Travel. Boston: SHEPARD, CLARK, & BROWN. Price \$1.

For sale by E. DARROW & BRO., of this city.

**THE LIFE OF GENERAL GARIBALDI.** Written by himself, with Sketches of his companions in arms. Translated by his friend and admirer, THEODORE DWIGHT, author of "A Tour in Italy in 1821," &c. Embellished with a Portrait on Steel. New York: A. S. BARNES & BEEBE. Price \$1.

For sale by E. DARROW & BRO., of this city.

**A NATURAL PHILOSOPHY.** Embracing the most recent Discoveries in the various Branches of Physics, and exhibiting the Application of the Scientific Principles in Every-Day Life. By G. P. QUACKENBOS, A. M., author of "Illustrated School History of the United States," &c. New York: D. APPLETON & Co. 1859. Price \$1.

For sale by ADAMS & DABNEY, of this city.

**ESSAYS AND DISCUSSIONS ON AGRICULTURE,** before the Farmers' Club of Little Falls. Edited by the Secretary of the Club. Little Falls, N. Y.: D. AYER.

All the above books can be obtained from the respective publishers, sent, prepaid by mail, for the price annexed.

## REVIEW OF THE MARKET

GENESEE FARMER OFFICE,  
ROCHESTER, N. Y., SEPT. 22, 1859.

THE advance in Breadstuffs, noticed in our last issue short duration. It continued, however, for a few days, at considerably higher than those quoted in our reports retained. A more liberal movement of Flour and Grain West soon induced buyers to act with more caution, and receipts exceeding the demand, the market became less firm, prices gave way. A decline, equal in rapidity and extent to the previous advance, then followed. This, too, was of a temporary character. A firmer feeling soon became manifest, and again advanced, in a short time, to the point from which it had receded. The upward tendency has again been checked, and a downward movement has about run its course, which probably will, be followed by one in the opposite direction.

The above is an outline of the fluctuations in the price of such stuffs in New York since our last report. Other markets have been more or less affected in a similar manner. With a tendency to change, which seems to be peculiar to all markets, it is not easy to form an opinion as to what the matters may be at any given time in the future. It is difficult, also, to conceive any adequate cause, or reason, for the ever-recurring variations.

The quality and condition of Western Wheat is better than usual; it is more mellow, and works easier and better in the hands of the miller. The Flour made from Spring Wheat superior to that produced from this grade for some time. This is gratifying to all parties. There is more satisfaction having to do with a good article than with a poor one. A grade of Flour will be more acceptable for general consumption and will take the place, to a certain extent, of those brands which have heretofore commanded a higher price. There is, however, still an important defect in the quality of Western Spring Wheat arising from the quantity of Oats mixed with it. Western farmers make a determined and effective effort to keep Wheat and Oats apart, and sell both intermixed no more.

The Wheat crop in England has been generally seen in good condition; that part which was soonest taken up is an exception, as the weather was then less favorable. The quality of the new Wheat in the south of England and in France is inferior to that of last year. In northern Europe and Russia the quality is reported to be good. It is yet too early to make an estimate of the general yield. It will not probably, as a whole, fall much below an average. The large quantity of Wheat still held by farmers will make up the deficiency in accounts represent the trade as dull, with little prospect of prices for some time to come.

The market for Corn is very firm, and quotations are for Barley, Oats, and Rye, steady, with but little change.

Pork is higher and steady. Beef lower, but firm at the market. Bacon is higher and steady. Butter a little lower. Other articles in the provision line, without change to notice.

The supply of good Beef Cattle is limited; that of medium quality is large. The former command full rates. The latter are lower, and the trade is dull.

The demand for medium and low grades of Wool has improved. The market is firm, and sales are made at full rates.

#### ROCHESTER MARKET.—Sept. 22.

**FLOUR**—Superfine from red wheat, \$4.50@5; extra white wheat, \$5.50@6.

**GRAIN**—White wheat, \$1.10@1.25; red do., 90c@1.10. Rye, 62½c. Barley, 62½c. Oats, 32c@33c. Beans—none offered—would probably bring 70c@75c.

**PROVISIONS**—Mess Pork, \$13.00@13.00. Hams, 10c for smoked. Shoulders, 7c@8c. Lard, 12c. Butter, 15c. Cheese, 9c@10c. Eggs, 12c@13c. Potatoes, 23c@25c. 1 hog, 7c per lb.

**CATTLE MARKET**—Beef Cattle, live weight, \$4.00@4.50. Calves \$3@3.50 per head. Sheep, \$3@3.4 per head. Lamb @ \$2 each.

HIDES—Beef hides, 6c per lb. Calf skins, 10c per lb. Pelts, 8c@75c each.  
 HAY—\$13@17 per ton.  
 WOOL—35c@50c per lb.

**NEW YORK MARKET.—Sept. 22.**

**FLOUR AND MEAL**—Market for State and Western Flour firm, with a moderate local demand and some inquiry for export. Superfine State, \$4.00@4.25; extra do, \$4.10@4.55; Western superfine, \$4.00@4.50; extra do, \$4.75@5.75; shipping brands Ohio round-hoop, \$4.85@5.20. Canadian extras, \$5.00@5.75. Southern Flour—Baltimore superfine, \$4.90@5.10; extra do, \$5.25@5.75; Brandywine, \$5.50; Georgetown, \$5.25@5.6; Petersburg city, \$5.50@7.00; Richmond city, \$6@7.25; Galego and Haxall, \$5.50. Rye flour dull at \$3.50@4.40 for fine and superfine. Corn meal—Jersey, \$3.85; Brandywine, \$4.10@4.15; punchcons, \$19.

**GRAIN**—Wheat firm. Kentucky white, \$1.30@1.40; Western white, \$1.20@1.35; State red, \$1.10; Southern red, \$1.10@1.22; Milwaukee and Canadian elm, 85c@1.05; Illinois and Ohio red winter, \$1.05@1.12; Chicago spring, \$1.75@1.91. Corn firm; Western mixed, 90c; Southern white, 92c; yellow, 95c.—Rye firm at 80c@81c. Barley, 60c. Oats—Jersey, Delaware, and Pennsylvania, 32c@37c; Old State, 35c@40c; new do, 41c@43c; Western, 36c@39c; 53c@92c per m. Timothy, \$2.00@2.25 for mowed; \$2.37@2.45 for rapped, per bushel. Red top, \$2.62 1/2 @2.87 1/2 per five bushel bag.

**PROVISIONS**—Pork steady at \$15.62 for mess; \$14.25 for thin do.; \$17@17.50 for prime; \$10.50 for prime. Beef firm—country mess, 36c@36.57; clear \$35.50; re-packed mess, \$7.50@9.50; extra, \$10.25@11.50. Bacon, 9 1/2c@10c. Hams, 8 1/2c@9c.—Shoulders, 7 1/2c@7 1/2c. Lard, 10 1/2c@11c. Butter—Ohio, 12c@16c; State, 11c@20c; Orange county, 22c@25c. Cheese, 9c@9 1/2c. **CATTLE MARKET**—First class Beef Cattle scarce, and sold at full rates; ordinary in large supply and lower; first quality, 9c@10c; medium, 8 1/2c@8 1/2c; ordinary, 6c@7c; extra good, 10 1/2c. Veal Calves, 6 1/2c@7c per lb. live weight. Sheep and Lambs sell at \$1.50@1.70 per head, according to quality. Hogs, \$5.75@6.25 per 100 lbs gross.

**WOOL**—Demand moderately active. State and Western fleeces 87 1/2@62 1/2c for common to choice; Canada mixed, 82c@84c; Canada sorted, 87c@88c.

**PHILADELPHIA MARKET.—Sept. 20.**

**FLOUR AND MEAL**—The market is quite dull, with small sales for local purposes. Old and new superfine, \$4.50@5; extra and fancy, \$5@6.50 for the range. Rye Flour firm at \$4. Corn Meal more active at \$3.50 for Pennsylvania.

**GRAIN**—Wheat dull; prime red, \$1.15; common do., \$1.08@1.10; white, \$1.25@1.30. Rye, 75c@90c for Pennsylvania; new Southern, 71c@72c. Corn in demand at 75c for white, and 80c for yellow. Oats steady at 30c for new Southern; 37c for Pennsylvania. Barley malt, 70c@90c.

**SEEDS**—Clover, \$5.25@5.62 1/2; Timothy, \$2.37@2.75. Flax seed, \$1.60@1.63 per bushel.

**PROVISIONS**—Market more active. Mess Pork, \$15.50@16. Mess Beef, \$16 for city packed. Bacon—Hams, 10c@12 1/2c; sides, 10c@10 1/2c; Shoulders, 8c@8 1/2c. Lard firm at 11 1/2c for barrels and tierces; 12 1/2c@12 1/2c for kegs. Butter 10c@12c for packed; 13c@14c for roll. Cheese, 9 1/2c@10c.—Eggs, 14c.

**CATTLE MARKET**—The receipts of Beef Cattle were large, and the market dull. Good Cattle brought a fair price, but common were offered low. \$7@9.50 per 100 lbs was about the range. Cows, \$20@24, according to quality. Sheep, 7c@8c per lb. Hogs, 7c@8 1/2c per lb.

**WOOL**—Market firm at 35c@40c for tub; 45c@55c@62 1/2c for quarter to full blood and fine fleeces.

**BUFFALO MARKET.—Sept. 22.**

**FLOUR**—Market firm, with fair demand. State from Spring wheat, \$4.25; extra Canadian, Ohio, Michigan, and Indiana, \$4.75@5; double extra do., \$5.25@5.50; extra Illinois and Iowa, \$4.25@4.50.

**GRAIN**—Wheat in fair demand, and better; Chicago spring No. 1, 87c@88c; No. 2 do., 84c@85c; red Ohio, \$1; White Canadian and Indiana, \$1.10@1.14. Corn firm at 80c. Oats firm at 32c@33c. Barley steady at 65c. Rye firm at 70c. Canadian Peas, 60c.

**SEEDS**—Clover, \$5. Timothy, \$2.00@2.12.

**PROVISIONS**—Mess Pork, \$15.50 for heavy; \$14.50 for light; nothing doing in prime. Hams—plain smoked, 9 1/2c; canvassed, 10c; sugar-cured, 10 1/2c. Shoulders—smoked, 8c. Lard dull at 11 1/2@11 1/2c. Butter steady at 16@20c. Hamburg Cheese, 7@8c.

**CHICAGO MARKET.—Sept. 20.**

**FLOUR**—Winter white extra, \$4.50@5.25; red do., \$4.12 1/2@4.50; Spring superfine, \$2.80@3.50; extra do., \$3.75@4.25.

**GRAIN**—Winter wheat dull; spring active and firm; No. 1 white winter, \$1; No. 2 do., 86c@88c; No. 1 red do., 88c@90c; No. 2 do., 74c@75c; No. 1 spring, 78c@75c; No. 2 do., 72c@73c; rejected, 65c; all in store. Corn, 68c@71c in store and f. o. b.—Rye—No. 1, 55c@60c. Barley, 52c@54c on track and in store. Oats, 36c@41 1/2c in store and afloat. Beans dull at 40@70c.

**SEEDS**—Clover, no sales. Timothy, \$2.05@2.08.

**PROVISIONS**—Mess Pork, \$15@15.25. Bacon firm; Hams, 10 1/2c@11 1/2c; Shoulders, 8c@8 1/2c. Lard, 11c. Butter, 14c@15c for fresh; firkin, 12c@14c. Cheese, 7c@8c for W. R.; 8c@10c for Hamburg. Eggs dull at 8c@8 1/2c. Potatoes, 40c@50c.

**POULTRY**—Spring Chickens, \$1.50@1.75 per dozen. Live Turkeys, 7c@8c per lb.

**CATTLE MARKET**—Beef Cattle—Extra quality, \$2.75@3.00 ordinary, \$1.50@2.50 per cwt. Sheep, \$3 per cwt. Hogs, \$5.00 per cwt.

**HIDES**—Market firm. Green city, 6; do. country, 6c@7c; green salted, 8c@8 1/2c; dry do., 13c@14c; dry flint, 15 1/2@16 1/2c; pelts, 15c@30c.

**WOOL**—No transactions to report.

**CINCINNATI MARKET.—Sept. 21.**

**FLOUR**—Market inactive. Superfine, \$4.50; extra, \$4.75@5. **GRAIN**—Wheat firm, with a steady demand. Prime white, \$1.10; good do., \$1.05@1.10; fair do., \$1@1.10; good to prime red, 95c@1. Corn firm at 75c. Rye firm at 75c, with an upward tendency. Barley active at 75c for winter, and 70c for spring. Oats, firm at 37c.

**SEEDS**—Clover steady at \$5.60@5.75. Timothy dull at \$2.20@2.25. Flax firm at \$1.10.

**PROVISIONS**—Mess Pork, \$14@14.25, closing firm. Bacon in demand; sides, 9 1/2c@9 1/2c; shoulders, 7 1/2c. Lard, 11c for barrel; 11 1/2c for keg. Butter—Choice Western Reserve, 15@16c; good to prime fresh Ohio, 12c@14c; common and fair, 11c@12c. Cheese active and firm at 5 1/2c for prime Western Reserve; 5 1/2c @9c for extra large do.; 10 1/2c@11c for English dairy; 16 1/2c for Norton's pine apple. Potatoes—Northern, 35c@45c; prime Ohio Neshamocks, 50c@60c.

**CATTLE MARKET**—Beef Cattle in good supply and dull, closing at \$2@3.50 per cwt. gross. Sheep firm at \$1.50@1.83.25 each. Hogs, \$4.75@5.50 per cwt. gross.

**HIDES**—Market firm. Flint, 16c@17c; dry salted, 15c@16c; green salted, 7 1/2c@8c; green, 7c.

**HAY**—\$16 per ton, with a moderate demand.

**TORONTO MARKET.—Sept. 21.**

**FLOUR**—Market firm; superfine, \$4.35@4.40; fancy, \$4.00@4.70; extra, \$4.50@5.

**GRAIN**—Wheat dull; ordinary to fair, 9c@9 1/2c; extra, \$1@1.05; spring, 55c@75c. Barley active at 65c@68c. Rye steady at 60c. Oats, 25c@30c. Peas scarce at 55c@58c.

**PROVISIONS**—Fresh Butter dull at 16c@18c; firkin, 12@14c. Eggs, 12c@12 1/2c. Potatoes, 2c@3c for ordinary to good quality. Dressed hogs, \$6@6.50 per 100 lbs.

**POULTRY**—Supply good at 30c@35c for chickens, and 37 1/2c @40c for ducks, per pair.

**FRUIT**—Apples \$1.75@2.25. Pears \$4@5, per barrel.

**CATTLE MARKET**—Beef Cattle in good supply at \$3.75@5 for ordinary to good. Calves, \$5@7 each. Sheep, \$3.50@4.50 each. Lambs, \$1.75@2 each.

**HIDES**—Beef hides, 6c per lb. Sheep skins, 80c from butchers, 40c@45c from pedlars, each.

**WOOL**—27c@28c per lb.

**HAY**—Market steady. Timothy, \$22@25 for best quality; medium, \$17@20 per ton. STRAW—\$9@11 per ton.

**LIVERPOOL MARKET.—Sept. 2.**

**FLOUR AND MEAL**—Western canal Flour, \$4.50@5.52; Philadelphia, Baltimore, and Ohio, \$5.25@6.24; Canadian, \$5.76 @6.24; extra qualities, \$6.24@6.72; sour, \$4.32@5.28. Indian Corn Meal, \$4.32@4.56 per bbl.

**GRAIN**—American white wheat, \$1.36@1.50; red do., \$1.22@1.32; Canadian white, \$1.25@1.44; do. red, \$1.20@1.28. Indian Corn—white, \$1.05@1.15; yellow, 84c@89c; mixed, 83c@85c. All per bushel of 60 lbs.

**WOOL**—Market without change. 12c to 40c per lb.

**LONDON MARKET.—Sept. 5.**

**FLOUR**—American sour, \$5.28@6.00; sweet, —.

**GRAIN**—Wheat—American white, \$1.26@1.44; do red, \$1.26 @1.33. Indian corn—white, 90c@95c; yellow, 87c@95c, per 60 lbs.

**WOOL**—Market less active. 25c@48c per lb.

**BRIGHTON CATTLE MARKET.—Sept. 22.**

At market, 1700 Beeves, 1100 Stores, 5000 Sheep and Lambs, 500 Swine.

**PRICES**—Market Beef—Extra, \$7.75@8.00: First quality, \$7.50; Second, 6.50; Third, 5.00. Working Oxen—\$100@130. Milch Cows—\$41 @44; Common, \$18 @19. Veal Calves—\$5.00@6.00. Yearlings—\$2.12. Two Years old—\$16 @20. Three Years old—\$22@25. Hides—7 1/2c@8c per lb.—Calf Skins—12c @13c per lb. Tallow—7 @7 1/2c. Sheep and Lambs—\$1.00@1.50; extra, \$2.00@2.75. Pelts—\$0.62@0.75. Swine—Spring Pigs, 6c; retail, 6c@7 1/2c. Fat Hogs—none.

Beeves are sold here by the head, at prices per lb. equal to the estimated weight of beef in the quarter, together with the fifth quarter, or the hide and tallow, at the same price, at a shrinkage from live weight agreed on by the parties—from 28 to 34 per cent.

## ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the *Genesee Farmer* for twenty cents a line, or \$2 per square, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. The *Farmer* has large lists of subscribers in every State and Territory, and in all the British Provinces. (It has nearly 3000 subscribers in Canada West alone.) There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada.

**EVERY FARMER SHOULD POSSESS "CARPENTRY MADE EASY."**—It teaches a new system of Framing for Buildings, Farm Houses, Barns, Bridges, &c., so that every farmer can be his own carpenter. Price \$3 sample copy; \$2 by mail, postpaid. JAMES CHALLEN & SON, Philadelphia, Pa.

October—11

**SOMBREIRO GUANO.**—80 per cent. Bone Phosphate of Lime. Try five bags this fall on an acre of your poorest land, or Winter Wheat. Send or write for a circular and certificate from those who have used it. Sold at \$30 per ton 2000 lbs.—14 bags to ton. WOOD & GRANT, New York. WM. A. MARTIN & CO., New York.

Sept.—21\*

**ANDRÉ LEROY'S NURSERIES,**  
AT ANGERS, FRANCE.

THE Proprietor of these Nurseries, the most extensive in the world, has the honor to inform his numerous friends and the public, that his CATALOGUE of FRUIT and ORNAMENTAL TREES, SHRUBS, ROSES, SEEDLINGS, FRUIT STOCKS, &c., for the present season, is now ready, and at their disposal.

Apply, as heretofore, to

F. A. BRUGUIÈRE,

October—31

51 Cedar Street, New York.

## UNION NURSERY, ROCHESTER, N. Y.

THE Proprietor of this Nursery offers for sale, this autumn, a large stock of Fruit and Ornamental Trees, consisting in part of the following, to which the attention of purchasers is respectfully invited:

50,000 Standard Apple Trees, 4 to 6 years old.  
2,000 Dwarf do. on Paradise, 3 to 4 years old.  
8,000 Standard Pears, 2 to 4 years old.  
12,000 Dwarf do. 2 to 6 years old.  
5,000 Standard Cherries, 2 to 3 years old.  
2,000 Dwarf do. on Mahaleb, 2 to 3 years old.  
2,000 Peaches.  
2,000 Orange Quinces.  
5,000 Queen of Prairie Roses—strong plants, for sale low by the hundred or thousand.  
2,000 Hybrid Perpetual and other Roses.  
2,000 Giant Rhubarb.  
Also, 50,000 Apple Trees, two years old.  
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AND  
PRACTICAL AGRICULTURE  
SCIENTIFIC AND FARMERS OWN PAPER

VOL. XX, SECOND SERIES.

ROCHESTER, N. Y., NOVEMBER, 1859.

No. 11.

### THE WHEAT PLANT.

JOHN H. KLIPPART, Secretary of the Ohio State Board of Agriculture, has prepared a book, of some seven hundred pages, on the "Wheat Plant; its origin, culture, growth, development, composition, varieties, diseases, &c., &c."

A work on such a subject was much needed. The author, in his preface, says: "To me it has been a matter of surprise that no American has produced a treatise on the wheat plant; and more than all, that even professional agricultural writers have been content to leave the 'scattered fragments of thought' on so important a topic as the physiology, culture, varieties, diseases, &c., of the wheat plant, dispersed through a multitude of journals or serial publications."

This is true; we had previously no work on the cultivation of wheat; and yet information on the subject is greatly desired. "That portion of the present volume," says the author, "published in the *Ohio Agricultural Report for 1857*, caused the entire edition of 20,000 copies to be absorbed in less than sixty days from the date of publication."

From this we should be led to infer, not only that such a work was needed, but also that it was one of real value. We have accordingly given it a careful perusal, and propose to give our readers some idea of its contents.

From the preface, we were led to expect a work of some originality and great research. The author there says: "The study of the wheat plant is the study of a lifetime. \* \* \* So far as the growth, the physiology of the plant is concerned, I have been careful either to verify every statement which is contained in this book, or else obtain it from such authority as to render verification unnecessary. \* \* \* On all doubtful points, I have consulted the best authorities to which I could obtain access, and have availed myself of the advantages offered by a constant and close attention to the best American, English, German, and French agricultural periodicals."

Now, with such anticipations as these remarks are calculated to excite, let us turn to the book itself.

The first chapter is headed a "General View of the Organic World," and has little connection with the wheat plant.

The second chapter is on "Cereals and Grasses." Several pages are taken from Schouw's account of the geographical distribution of grasses, but where the quotation ends we have no means of determining. The author says cereals "contain the elements to form bone, muscle, and fat." Do not other plants contain the same elements? This chapter concludes with a "brief sketch of the most important cereals other than wheat." This is very well, but somewhat out of place in a treatise on wheat. We are also treated to a "short, brief description of the culture of rice."

In the next chapter we have the "History of the Wheat Plant,"—including the author's reasons for believing that wheat will not turn into chess.

The fourth chapter treats of the "Origin of the Wheat Plant." It contains fourteen pages devoted to a botanical description of *Ægyllops*, and an account of the experiments of M. FABRE, which resulted in his obtaining wheat from them.

The next chapter is on the "Structure and Composition of the Wheat Grain," taken principally from the *Natural History of New York*.

The next chapter is on the "Germination of the Wheat Plant," and is quite interesting. We make a few extracts: The vitality of a grain of wheat, it is stated, is not destroyed by cold short of 58° below zero. "Wheat will not mature at a lower temperature than 45°. Potatoes require 52°, barley 59°." "If a grain of wheat be steeped, during fifteen minutes only, in water having a temperature of 122° Fah.—a temperature but little above blood-heat—the germinating principle will be totally destroyed." "A German writer states that wheat sowed from one to four inches germinated the deeper the better; but from four to seven inches,

the deeper the less successful was germination; at eight inches, the seed did not germinate at all." The blue rays of light are said to greatly accelerate germination, while red rays retard it, and the yellow check it entirely.

The next chapter is on the "Origin and Constituents of Soils." There is little in this either new or valuable.

The eighth chapter is on the "Nutrition of the Wheat Plant." Here we should look for valuable information, but we look in vain. Several pages are occupied in proving that the wheat plant can not grow without inorganic food, which is undoubtedly true. The author, too, seems to think that the chief value of ammonia is in supplying hydrogen,—which is, to say the least, very doubtful; for other substances which contain hydrogen, but no nitrogen, have little or no effect on wheat.

The next chapter contains the results of some "Experiments of the Duke of Salm Horstmar on the Growth of Plants in Inorganic Artificial Soils." We confess our inability to perceive the practical value of these experiments; or to understand such expressions as "magnesia can not neutralize lime."

These nine chapters occupy over two hundred pages of the work. We have waded through them with small profit. They are singularly destitute of practical suggestions or of correct scientific deductions.

The heading of the next chapter promises something better. It is "Experiments of Gilbert and Lawes." These gentlemen have been experimenting on the *growth* of wheat for the last twenty years, and, as our readers know, have obtained some valuable practical results. But our author *says not a word of these experiments!* He copies the results of some experiments on the *composition* of wheat grain, and introduces them with remarks which would lead his readers to suppose that these are the experiments which are often cited as proving the falsity of LIEBIG's "mineral manure theory." They have nothing whatever to do with the controversy to which he alludes!

The next chapter is on the "Growth of the Wheat Plant," and contains some interesting information in regard to germination, the formation of roots, &c., illustrated with wood-cuts, some of which we observe are also given in previous pages of the same work, and some of them also in the following chapter, which gives a "botanical description of the wheat plant."

The thirteenth chapter is on the "Wheat Regions of the World." It is shown that intensely cold winters do not prevent the successful cultivation

of wheat. "In central and western Europe, wheat is cultivated chiefly in the zone between latitude 36° and 50°; further north, rye is generally preferred." There is in this chapter some interesting information in regard to the wheat crop of Europe, taken from the *Encyclopædia Britannica*, as quoted by the *Cyclopedia of Commerce*, published by HARPER & Bro's, New York. The table showing the quantity of wheat raised in the different States of the Union, is also taken from the latter work—at least it will be found in it. We are told, in this chapter, that "portions of New York that formerly produced thirty bushels per acre, now seldom average over eight." This is a stale error, as confidently put forth as though it had never been refuted. The statement rests on no satisfactory evidence. Our author offers no proof. But what he lacks in this respect, he makes up in assertion. All through the book the statement is iterated and reiterated in ever-varying forms and figures. Speaking of the wheat of Ohio, he says: "In less than fifty years, the average product was reduced from thirty to less than fifteen bushels per acre, while the yield in Great Britain has increased from sixteen to thirty-six bushels per acre during the same period." Now if there is the first particle of proof that the *average* product of wheat in Ohio was ever thirty bushels per acre, we have yet to see it. The statement in regard to the yield in Great Britain is equally unfounded. In the last edition (1853) of the *Encyclopædia Britannica*, Vol. 2, page 310, it is said that, "from information carefully gathered, Mr. CAIRD gives it as his opinion that the average produce of wheat per acre, in twenty-six of the thirty-two counties of England, visited by him, is 26½ bushels, or 14 per cent. higher than it was estimated at, in the same counties, by ARTHUR YOUNG, eighty years before." In 1857, the estimated yield of wheat in Ireland was 23½ bushels, and in Scotland 27½ bushels per acre.

The author attributes the diminution of the wheat crop to the removal of potash from the soil. This idea is destitute of all foundation in fact. The manures which have been most beneficial in increasing the yield of wheat, are those which contain little or no potash, such, for instance, as Peruvian guano; while the direct application of potash is rarely beneficial.

In his preface, the author says: "I have been careful to verify every statement which is contained in this book." He seems to have thought that his statements would need such a guarantee. One of this class is the following: "One acre plowed twelve inches deep will produce more wheat than four acres plowed six inches deep." In other words,



land plowed six inches deep produces twenty-five bushels per acre, when plowed twelve inches deep it will produce one hundred bushels per acre! Here is another statement, on the next page to be above, which will surprise our readers in Upper Canada, than whom there are no better farmers or more successful wheat-growers on the continent: That portion of Canada, which is included in the heat region, is no longer profitably cultivated with wheat, and has fallen off in wheat production from 2,981,244 bushels to 942,835 bushels in a year. This has curtailed the product of the crop in the heat-growing region immensely, and, *Canada may be left out of the wheat-region.*"

Prof. JOHN WILSON, in a lecture, last year, delivered before the Society of Arts, tells a very different story. He says: "In 1851 the gross amount of wheat grown [in Canada] was 16,202,272 bushels, showing an *increase of four hundred per cent.* during the ten previous years." "These," he continues, were the statistics of 1851; since then the country has been advancing at even a more rapid rate. In 1856 the gross wheat produce amounted to 26,555,64 bushels, showing an *increase of over ten million bushels*, which is equal to 64 per cent. in the five years."

This chapter is rich in such statements as the above; but we can not linger. It closes with two pages of statistics taken from the *Cyclopedia of Commerce*—or at least they are given there; for we can not say but it, too, may have copied them without credit.

The next chapter is headed the "Culture of Wheat." It might have been more appropriately headed, "Nothing in Particular— from various authors." There is not a word said about the culture of wheat in the whole chapter.

The next chapter is on the "Exhaustion of Soils," taken entire from *Liebig's Letters on Modern Agriculture*. Then follows an account of the Rev. J. SMITH's method of cultivating wheat, taken, without credit, from *Morton's Cyclopedia of Agriculture*, (vol. 2, page 1147).

The next chapter is on the "Management of Soils." It is made up of extracts from TULL, SALISBURY, MAPES, STEPHENS, and MADDEN. It also contains a cut and short description of CROSSKILL's Lod-Crumber, taken from the *Ohio Cultivator*. This is one of the most useful things in the book. There is here also an elaborate puff and flaming illustration of the "Columbus Double Plow, GILL's Patent, 1855."

The heading of the next chapter is the "Improvement of Soils"; but this gives a very faint idea of the miscellaneous nature of the chapter.

The next two chapters are on the varieties of wheat, followed by a chapter on the diseases and enemies of wheat. They are classed as follows: "Terrestrial, Atmospheric, Agricultural, and Constitutional."

The next chapter is on "Animal Parasites affecting the Wheat." Of the wheat midge it is said: "Omitting the culture of wheat throughout an infected district for one or two years, and cultivating instead some other crops, is a safe and certain remedy." We believe the experience of farmers in New England does not sustain this assertion.

We are not given to verbal criticism, or we should question the correctness of the term "animal parasites," as applied to insects affecting plants.

The book closes with a chapter on the "History, Culture and Varieties of Indian Corn." A portion of this is taken from the *Genesee Farmer*, without credit, though other portions of the same article are credited. Thus ends this voluminous treatise on the "Wheat Plant." The importance of the subject, and not the merits of the book, have induced us to endeavor to give our readers some idea of the character of the work.

THICK VS. THIN SEEDING OF OATS.—In 1850, Mr. GULLAND, of Fifeshire, Scotland, offered a sweepstake, that four bushels of oats, sown per Scotch acre, in poor land, would yield a better produce than eight bushels sown under similar conditions. The late Mr. HILL, maintaining the contrary, accepted the sweepstakes, and a number of others took up the same. Experiments were made by Mr. DINGWALL, of Ramornie, and Mr. BUIST, of Hattonhill. In Mr. BUIST's experiments—

4 bushels sown, yielded 28 bushels per acre, weighing 34 lbs. per bushel.

8 bushels sown, yielded 36 bushels per acre, weighing 34¼ lbs. per bushel.

In Mr. DINGWALL's experiments—

4 bushels sown, yielded 45 bushels per acre, weighing 38½ lbs. per bushel.

8 bushels sown, yielded 49 bushels per acre, weighing 39 lbs. per bushel.

HARD MILKERS.—In answer to the inquiry of "W.," in the September *Genesee Farmer*, allow me to state my method. I use a lance or bougie of steel, with a blade one and a half or two inches long, one-fourth of an inch wide, and sharp on both edges. The teat is held firmly by the hand, the milk pressed into it, and the instrument inserted in the orifice and pushed up to its shoulder, taking care to have the blade follow the milk channel. The regular and constant milking of the cow will keep the channel open after it is thus widened; but if it should show symptoms of closing up, it will be necessary to recur to the operation again, perhaps three or four times, always inserting the blade so as to cut nothing but the old channel each time. —WM. STOVER, *Waterloo, N. Y.*

## BOYS, STUDY AGRICULTURAL CHEMISTRY.

It is a great mistake to suppose that boys can not learn and understand the principles of agricultural chemistry. And it is a still greater mistake in fathers not to provide their sons with some simple treatise on scientific agriculture. We recollect, when quite a boy, of *devouring* every book, treatise, pamphlet, or lecture, on this subject, which could be borrowed or purchased. We believe most farmers' boys have a taste for agricultural chemistry. Fathers should encourage this taste. Agricultural chemistry has been brought into disrepute by the extravagant pretensions of enthusiastic but mistaken writers. A brighter day is dawning. Much of the chaff has been blown away, and the golden grain begins to appear. Chemistry can and will render vast aid to agriculture. Let every farmer, and especially every farmer's son, rest assured of the fact. We hope to see the time when agricultural chemistry will be taught in every country school house. The difficulty in the way is not in the boys—not in their inability to master the subject—but in the inability of their teachers to impart the desired knowledge.

The lamented Prof. NORTON, in one of his "Letters" from Europe, alludes as follows to an examination of twenty-five boys, in agricultural chemistry, selected from the parish schools in different parts of Scotland. These boys had attended to agricultural chemistry for half an hour or an hour once a week, this being the time recommended by the Educational Committee of the Agricultural Chemical Association. Prof. NORTON says:

"As a preliminary step they were examined by Mr. DAVIDSON, Rector of the Normal School, Edinburgh, on the usual branches of education in the parish schools, to show that these had not been neglected. In conclusion, Mr. DAVIDSON declared that in these branches they seemed equal to the children of other schools. Prof. JOHNSTON then commenced the part allotted to him, and purposely striking away from the beaten track of the Catechism, made his questions unlike in form to any they had before heard. The readiness and the thorough acquaintance with first principles which they showed, astonished every one present. Some prizes had been offered by the Agricultural Committee to the boys who acquitted themselves best, and the eagerness which they all manifested, was most amusing. The different masters also became highly excited each for his own boys, and I felt myself, when the competition waxed keen, becoming almost as much interested as if I were one of the parties concerned. Some eight or ten of the boys were so equally matched that it was almost impossible to decide which was best, and premiums were accordingly given to each of them. I never saw anything more entirely and triumphantly satisfactory than this examination. No person present

could have remained unconvinced that young boys could not only remember, but *understand*, the principles of scientific agriculture, as laid down in Prof. JOHNSTON'S Catechism. One of the boys who took a premium was a little fellow of eleven years, and the pertinency of his answers frequently elicited bursts of applause. Eight schools were represented at this time; but this instruction has as yet been introduced into but a small portion of the parish schools of Scotland. What has been done there and in Ireland is most encouraging, it shows that the movement is on safe ground.

"I trust that in America, by the universality and completeness of our instruction, we shall be able to show the old country an example in this respect."

This was written fourteen years ago. Had Prof. NORTON lived he would have done much toward the general introduction of the study of agricultural chemistry in this country. But he was cut down in the flower of his usefulness.

"Oh! what a noble heart was here undone,  
When Science self destroy'd her favorite son."

But "he, being dead, yet speaketh." His "*Elements of Scientific Agriculture*" is the best book of the kind extant, and one which we desire to see in the hands of every young farmer in America. Boys, study Agricultural Chemistry! Study "*Norton's Elements.*"

## DISCUSSIONS AT AGRICULTURAL FAIRS.

THE evenings of the days on which the New York State Agricultural Fair was held at Albany, were devoted to the discussion of agricultural questions, by the prominent farmers brought together by that occasion. One evening, the subject of manuring was discussed. The general opinion of those who spoke, was that it was preferable to compost manure, and spread it on the surface of the land, rather than plow it in. Mr. MARKS, of Onondaga, said: "I never want to plow in any more manure, whether I intend the ground for grass or cultivated crops." GEO. GEDDES, of Syracuse, said: "The best plan is to manure grass till you get a good sod, and that itself, when turned under, is a good coat of manure. I have lost more corn by manuring, on account of the grubs, than I have gained by the manure. I prefer to make the grass land rich enough for a corn crop." Mr. GOLDSMITH said Orange county farmers generally prefer surface manuring, which keeps the grass in good condition many years without plowing. Mr. KIERSTED, T. C. PETERS, Mr. COLLINS, L. F. ALLEN, and several others, agreed that harrowing in manure was better than plowing it in. Mr. MOSELEY said he spread all his manure on the snow. Others, again, among them W. PLUMMER, Hon. Z. PRATT, Mr. LYON, Mr. SYLVESTER, &c., preferred plowing the manure under.

One evening, the Hon. JOSIAH QUINCY gave an able address on soiling cattle, in the course of which he said: "Fifty years ago, my farm cut 20 tons of hay; it now cuts 300. This is due to the soiling system. The manure of a cow is of equal value to her milk. One cow will produce, in a year,  $3\frac{1}{2}$  cords of solid, and the same of liquid, manure. This, composted with twice its amount of muck, would increase the amount to 21 cords—equal in value to the same amount of barn-yard manure.

Mr. J. S. GOLD, of Columbia Co., gave an address, one evening, on the subject of the cultivation of grasses; in which he said: "In seeding down meadows, the rule should be to sow a variety of seeds, and such as come into flower nearly at the same time. Harrowing in grass seed is destructive to the crop. If possible, grass seed should be sown before rain, and leave that to make the necessary covering. Lime, as an application to land, would be improved by slaking it in water considerably salt." Mr. McCOWN, of Long Island, said: "We sow eight quarts of timothy seed to the acre on wheat, and leave the land in grass for several years, top-dressing it with 150 pounds to the acre of Peruvian guano."

T. C. PETERS alluded to the meadows of Mr. THORNE, of Dutchess Co., which, he said, owed their productiveness to their not being fed off in autumn.

The farmers of Illinois also held discussions during the time of the State Fair at Freeport, and afterwards at the United States Fair, at Chicago.

Plowing and drainage were the subjects on the first two evenings. The general opinion was that the prairie lands were not plowed deep enough, and that the use of mole ditchers was of most benefit on tenacious soils, and that it would pay to drain with the mole plow until tiles became cheaper.

At Chicago, the discussion turned on the subject of fruit culture. M. L. DUNLAP advised planting orchards in Northern Illinois on a northern or eastern slope. He preferred the limestone shales, and would not plant on the dark prairie mould. He considered it necessary to shelter the fruit trees by a belt of timber on the north, south and west. For this purpose deciduous trees are best. Mr. ROSENSTIEL said a tree wanted nursing from its infancy, as much as a child, and needs educating (training) too. Mr. MILLS had no faith in protecting trees; thought those protected had suffered from the hard winters quite as much as those left exposed. Mr. W. W. BEEBE thought that the trees were not planted deep enough. He subsoiled his ground before planting. He said: *Do not plant*

*more trees than can be well taken care of.* Dr. WARDER believed in protection. The best orchards are on elevated and well-drained soils. Sandstone soils are best for the peach. Cultivate the orchard well, but do not plow it after the 1st of June. Lime, manure and good cultivation, he considered the best preventive of the bitter rot.

#### CUTTING HAY FOR STOCK.

SOME years ago, a correspondent of the *Massachusetts Ploughman*, THOS. W. WARD, made some experiments in regard to the economy of cutting hay and corn fodder for horses and cattle. The result was in every way satisfactory. One effect of cutting fodder, brought to light by these experiments, we have never seen alluded to before. The solid excrements of the animals, in proportion to the food eaten, were much heavier from the cut than from the uncut fodder. In other words, they absorbed more liquid. This is an important fact. The great loss in keeping manure in the barn-yard is from drainage; and it is quite reasonable that cut fodder would absorb more liquid than uncut. In England it has been recommended, and is to some extent the practice, to cut all the litter as well as the fodder. The manure is shorter, and is sooner ready for the land, and can be spread and plowed under more easily; and undoubtedly absorbs more liquid.

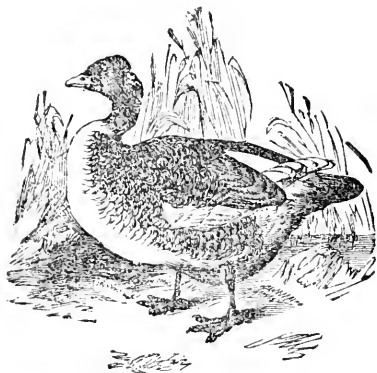
Mr. W. says his experiments "show a saving of about eighteen per cent. in favor of cut hay, and also an increase in weight of excrement of fifteen per cent." "Thus," says Mr. W., "we spend less hay and make more manure, which is the farmer's capital." He says, in conclusion, he will "not attempt to solve the mystery in regard to least hay making most manure." There is no "mystery" about it. It is due, undoubtedly, to the increased capacity of the cut straw to absorb liquid rapidly.

Another advantage in cutting fodder for stock is that coarser and more unpalatable food can be used. A horse that would eat straw only when compelled by keen hunger, will eat it readily if cut up and mixed with a little corn meal; and the mixture will be quite as nutritious as hay, and less expensive. In some sections, one of the cheapest methods of wintering horses is to cut up oats in the straw, and mix them with a little bran; or, if the horses are at hard work, with a little corn meal.

The hay crop is so short this year, in many sections, that it behooves our farmers to use the most economical methods of feeding their stock; and cutting up the straw, corn stalks, and hay, will be more than usually advantageous.

### GEESE AND THEIR MANAGEMENT.

The common domestic goose is one of the most profitable of our poultry, where the facilities exist for breeding them largely. Water is more necessary to geese than ducks, and it is generally useless to attempt to raise them successfully unless they can have access to a pond or stream of water. A good pasture, or common, for them to graze upon, is another requisite. They bite so close that a very bare pasturage will support them. They ought not, however, to be allowed to graze on pasturage occupied by farm stock, as they spoil the grass by leaving their droppings scattered on the field, and no

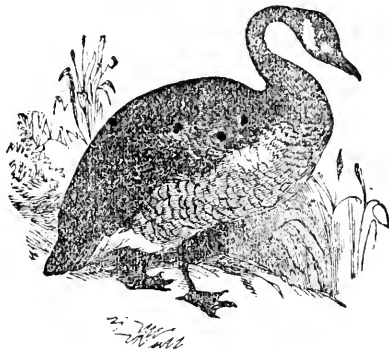


DOMESTIC GOOSE.

animal will eat those spots afterwards. They are very destructive to all farm and garden crops, and require to be carefully excluded from them, which is generally done by putting a yoke, or light piece of board, across their breast, to prevent them from getting through the fences.

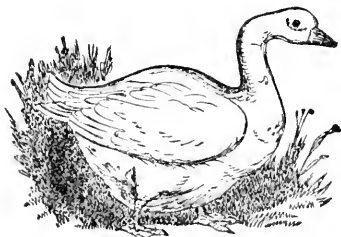
They are best for breeding after they have attained their third year, and will live to a great age. They are better to be kept separate from other poultry, as they are apt to become quarrelsome, and injure the fowls that they are kept with. For a goose-house, a dry situation is required. Low sheds, with nests partitioned off, and well supplied with clean, dry straw, so arranged that the eggs can not roll out while the female is sitting on them, are the most convenient. A goose will begin to lay in February, and the eggs should be removed before they have a chance to freeze, and carefully kept in a dry, and not too warm, place, till they are to be set. We usually keep them in bran. A large goose will cover seventeen eggs. The eggs are very irregular in hatching, and the goslings first hatched require to be removed from under the goose, and kept in a warm basket in the house, till the whole brood is hatched, otherwise the old bird is apt to desert her nest too soon. The goslings may be let

out as soon as they are hatched, and, unlike young ducks, they are not liable to injury if allowed to go to water, unless, as is very often the case, some amphibious monster, or greedy pike, should take a fancy to make a meal of them. The goslings require feeding for a time, on meal and bread crumbs soaked in milk, with perhaps a few lettuce leaves chopped fine and mixed in.



CANADA WILD GOOSE.

**THE CANADA WILD GOOSE.**—This is more properly a species, being considered by many naturalists as belonging to the swan tribe. It will mate with the domestic goose, but the progeny of the cross are sterile; that is, their eggs will not hatch. In its wild state it is very abundant throughout the northern portions of America, principally in Canada and the Hudson's Bay Territories. It has been domesticated, and forms a very beautiful addition to our ornamental ponds and lakes. The wings require to be clipped in the spring and autumn, otherwise it is apt to fly away and return no more.



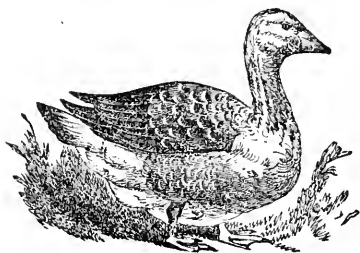
BREMEN GOOSE.

**THE BREMEN GOOSE.**—This variety was brought to this country from Germany in 1821, and now obtains the preëminence over all others, in the estimation of most breeders. Its color is pure white, and its flesh more tender and juicy than that of the common goose. Some epicures declare its flesh to be equal in flavor to that of the Canvass-back Duck. From its quiet domestic character, it possesses a great aptitude to fatten, and it is very prolific, two broods being frequently raised in a season.



CHINESE GOOSE.

**THE CHINESE GOOSE.**—Of this there are two varieties, the brown and the white. It has been so long known that its origin is involved in obscurity, and it is called by a great variety of names. It is a handsome bird. The male is disproportionately larger than the female. It is the most noisy and quarrelsome of all the goose tribe; and more than one gauder can not exist on the same premises. At the same time it is so vigilant that no fowl-stealer can set foot on the premises where they are kept, without raising a din sufficient to wake the seven sleepers. This must have been the bird that once saved Rome. It is smaller than the common goose, but is very prolific, sometimes laying in November. The white variety is, on the water, the most graceful and active of the goose tribe, and is highly esteemed as an ornament to an artificial pond.



TOULOUSE GOOSE.

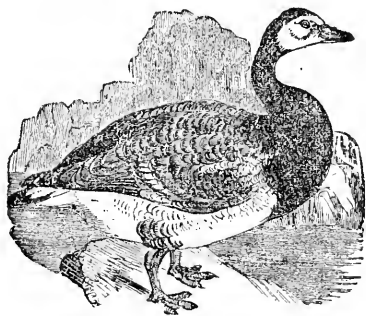
**THE TOULOUSE GOOSE.**—This, at best, is an ugly bird, with a short neck, and a heavy low-set breast, almost touching the ground. It is generally of a dark grey color, mixed with brown. It attains to an enormous weight; and even when fed to the greatest weight, does not get so fat as the common goose. Few, if any, birds of this variety have yet been imported into this country.

**THE HONG-KONG GOOSE**—MORE PROPERLY THE SWAN GOOSE.—This variety is said to be derived from China, but this is doubtful. It is the largest of the goose tribe, of a dark brown color, with fawn-colored breast, and closely resembles the swan; walking with a stately affectation, and appearing graceful and dignified on the water. It attains the weight of 25 lbs. or more.



HONG-KONG GOOSE.

**THE BERNICLE GOOSE.**—This is the smallest of geese, and is mostly found in a wild state on the shores of Scotland, Ireland, and Northern Europe. It is about the size of a Musk Duck, and of a pied appearance, with black legs and bill. It has been domesticated, and is very gentle, but shy, in its disposition; and is accounted the prettiest of ornamental water-fowl.



BERNICLE GOOSE.

The feathers of geese are usually considered quite an item in the economy of a good housewife; and for the purpose of obtaining them, the geese are usually plucked twice or thrice during the summer. Young, or "green" geese, are considered a luxury for the table in autumn or winter, and are readily fattened when shut up in a dark place. Their diet, for the first two weeks, is usually oats and water mixed in a trough; after this, the food is gradually changed to barley meal mixed with water. Steamed potatoes, mashed up with four quarts of ground buckwheat, or oats, to the bushel, and given warm, will fatten a goose in three weeks.

## SPIRIT OF THE AGRICULTURAL PRESS.

**KEEPING FARM ACCOUNTS.**—A correspondent of the *Farmer and Gardener*, a new and valuable agricultural journal recently started at Philadelphia, thinks that if every farmer kept a systematic account of everything seen and done on the farm, the agricultural papers would become two-fold more valuable than they now are, as the notes of such observations as might be made could be more readily relied upon and communicated, than if made from memory; and farmers who now never think of writing for the papers, would take a pleasure in so doing.

**COAL ASHES.**—The editor of the *Boston Commercial Bulletin* gives the results of several experiments he made with coal ashes. Applied to an old sward, it gave two fine crops of grass where nothing but white-weed, &c., grew before. Applied to potatoes, it produced a large crop, of fine quality, and perfectly free from disease. Applied to sweet corn, and many other vegetables in the garden, it gave them a fine growth and clear green color.

**HOW TO DESTROY THE WHEAT-MIDGE.**—In the *American Farmer* is a long and interesting article, written by a Canadian wheat grower, which maintains, as the result of careful experiments, that the larva of the wheat-midge may be readily and effectually destroyed by sowing quicklime on the stubbles immediately after harvest.

**COMPOSTING SWAMP MUCK.**—F. HOLBROOK, in the *New England Farmer*, recommends mixing swamp muck with barn-yard manure, in order to absorb and retain the volatile portions of the latter. He says it is important that muck should be dug from the swamp and piled for a few months, or even a year or two, before using it as compost.

**TALL TIMOTHY.**—The *Shasta (Cal.) Herald* gives an account of some timothy, grown in that neighborhood, the spears of which measured eight feet in length, and quite large enough to form walking-sticks for San Francisco snobs.

**WHEAT IN CALIFORNIA.**—A California correspondent of the *Western Farmers' Magazine*, a new paper recently started at Chicago, Ill., says that along the valleys and river bottoms there they only give one plowing for two or three crops. The first crop generally yields 50 to 60 bushels per acre. The second, known as the volunteer crop, is also large, and of better quality, and less liable to smut. The wheat that took the first premium at the State Fair in 1854, yielded, per acre, 82½ bushels of 60 lbs. to the bushel!

**APPLYING MANURE TO GRASS LANDS.**—A correspondent of the *New England Farmer* says he has learned, by experience, that the best time to apply manure as a top-dressing is late in autumn or winter—so late that the manure, after being spread upon the surface, will remain in a congealed state till it is drenched away by the thaws and rains. Snow covering the manure will prevent its fertilizing qualities from being evaporated, and when the snow melts they will be carried down into the soil.

**BROOM CORN IN ILLINOIS.**—An Illinois paper tells of a field of broom corn, near Rockford, containing nearly 800 acres. The corn was planted by machinery, in rows two feet nine inches apart. The crop has been sold for \$85 per ton, and will yield \$20,000.

**CHINESE SHEEP.**—The *New York Observer*, in an account of a visit to the farm of R. L. PELL, Esq., says these sheep are a curiosity, and the only ones of the kind in this country. They are prolific beyond all other kinds—often producing three, four, or five lambs at a time, and breeding twice a year. The mutton is said to be of a very high character, and wholly devoid of that offensive flavor peculiar to mutton at times.

**FOWL BREEDING.**—The *Rural Register* says there is just as much necessity for breeding good laying fowls from good layers, as there is of selecting milk cows from the progeny of good milkers; and that no sort of grain, if at all damaged, is fit for feeding to poultry. Better give it to the hogs.

**SEEDING TIMOTHY.**—Mr. W. D. KELLY, in the *Prairie Farmer*, gives his mode of seeding this grass, which is to sow on clean, well-prepared land, about the first of September; and if any part fails, he sows again in March; giving the seed a light harrowing, or brushing in. No other crop is allowed to occupy the ground.

**HORN SHAVINGS AS MANURE.**—Horn is exceedingly rich in nitrogen—equal in this respect to the best Peruvian guano. It is, therefore, a most valuable fertilizer. Some years ago, Mr. HUMPHREY, of Albany, N. Y., planted three acres of corn on the poor sandy soil near that city. As an experiment, he dropped in each hill on two acres, a small quantity of horn shavings. The other acre received nothing. This produced only 15 bushels, while the former produced 60 bushels of shelled corn per acre.

If milk you'd have both clean and sweet,  
Each night before you rest your feet,  
Make for your cows a straw-bed neat.

—Dolly Home spun.

## AGRICULTURAL FAIRS.

## UNITED STATES AGRICULTURAL FAIR.

THE Fair of the United States Agricultural Society was held at Chicago, Illinois, September 12—17. The weather was unexceptionable, and the many railroads centering in Chicago were tasked to their utmost capacity to carry to and fro the immense concourse of visitors that kept pouring in day and night from all the surrounding region. The receipts amounted to over \$33,000. The fair was inaugurated by a speech from President TIGHELMAN, followed by speeches from Senators CRITTENDEN and DOUGLAS. After the speeches, a grand procession around the ring, of the horses and cattle, enabled every one to see at a glance all the animals in those classes on exhibition.

The entries of articles numbered 2,552, viz: horses, 234; cattle, 210; sheep, 171; swine, 44; poultry, 57; farm and garden products, 229; horticultural and household, 311; mechanical and agricultural implements, 1,015; scientific, 209; miscellaneous, 72. The crowd through the grounds was so great, and all the halls so densely packed with people, that it was next to impossible to see anything to advantage.

HORSES were a prominent feature. A race, or, in agricultural phraseology, a "trial of speed," for \$1,000, between the celebrated trotting nags Flora Temple and Princess, being one of the attractions. Several of the most noted horses from Vermont and Kentucky were exhibited.

CATTLE.—Among these the Devons predominated, and made a good display, both as to numbers and quality. In Short-horns, some splendid herds were shown, among which those of F. W. STONE, of Guelph, C. W., and J. N. BROWN, of Sangamon county, Ill., attracted special attention; the latter being awarded the first premium as the best herd on the ground. In Devons and Jerseys, J. H. McHENRY, of Maryland, took the first premium. In Herefords, JOHN MERRYMAN, of Maryland, carried off several of the prizes.

SHEEP.—The show in this department was remarkably good, mostly fine-wools, in which class the Messrs. McCONNELLS, of Sangamon county, Ill., and GREGORY, of Vermont, exhibited some very choice French and Spanish Merinoes. In Cotswolds, the flock of F. W. STONE, of C. W., attracted special attention. There were also some fine sheep in this class shown by BRODIE and CONVERSE, of Jefferson county, N. Y. Of Leicesters, the finest were shown by Messrs. McGLASHEN and MILLER, of C. W. In South-downs, the flocks of Messrs. TOMS, of Ohio, and CARPENTER and GAGE, of Ill., were among the best.

SWINE.—The show of these was not large, but there were some fine Suffolks, Essexes, and Berkshires shown.

FOWLS.—There was less variety than might have been expected, and this department showed evidence that the "hen fever" had subsided.

AGRICULTURAL IMPLEMENTS AND MACHINERY.—The show in this department was very large. There was a mole ditcher shown by JAS. NEVISON, of Ohio, the price of which is only \$12. Also, a fanning mill from Utica, N. Y., having a peculiar arrangement for cleaning fowl seed, and grading the grain as it passes through.

FARM AND DAIRY PRODUCE.—There were some fine samples of wheat shown. A sample of *White Australian* winter wheat, grown at Berrien, Mich., and weighing 64 lbs. per bushel, attracted much attention. Only two samples of barley were shown, and not much of oats. In corn, the samples were numerous and good. Of butter and cheese, there was quite a large quantity, and some good samples on exhibition, mostly from the prairie lands of Illinois.

HORTICULTURAL.—The exhibition here was not as large or as full as it might have been, though much of the fruit was excellent. ELLWANGER & BARRY, of this city, showed a collection of pears numbering 145 varieties, as also 107 varieties of apples. Grapes appeared in strong force, and of fine quality. Vegetables generally made quite a respectable appearance. A cabbage was shown weighing 40 lbs.

Everything passed off well.

## NEW YORK STATE FAIR.

The Fair of the New York Agricultural Society was held at Albany, October 4—7, and was one of the most splendid and successful exhibitions ever held in this country. The weather was as fine as could be desired. The entries exceeded those of any former exhibition, numbering 3,551, viz: horses, 507; cattle, 362; sheep, swine, and poultry, 604; implements and machinery, 496; farm and garden products, 360; domestic manufactures, 364; horticultural, 244; miscellaneous, 604; special, 10. The receipts footed up \$18,133, an increase over those of last year of some \$3,000; and higher than at any previous Fair of the Society.

HORSES.—This class was numerous, but perhaps of less merit than might have been expected. No trials of speed were allowed.

CATTLE.—These were not so numerous as usual, but the chief breeds were represented by very choice animals. In Short-horns, A. B. CONGER, SAMUEL THORNE, HOB. WM. KELLY, J. R. PAGE, SIMEON LELAND, L. G. MORRIS, WM. SLINGERLAND, J. BECAR, and several others, exhibited splendid animals. J. R. PAGE, of Sennett, took the first premium for aged home-bred bulls, with "Hiawatha." SAMUEL THORNE took the first for imported stock, with "Grand Turk" and his cow "Lalla Rookh." He also took the first for home-bred cows, with "Miss Gwynne." E. G. FAILE, C. S. WAINWRIGHT, G. VAIL, and others, showed some fine herds of Devons. F. FREYMEYER, of Fulton, took the first premium for aged bulls; C. S. WAINWRIGHT, of Rhinebeck, for the best imported bull. C. S. WAINWRIGHT and E. G. FAILE took the best premiums for cows and heifers in this class. Of Herefords, E. CORNING, jr., A. BOWEN, and M. C. REMINGTON, exhibited largely. E. P. GARDNER, of Schoharie, took the first premium for aged bulls; and A. BOWEN, of Medina, and E. CORNING, jr., of Albany, took the best prizes for cows and heifers. In Ayrshires, S. D. HUNGERFORD, E. P. PRENTICE, BRODIE & CONVERSE, and several others, showed some fine animals. E. P. PRENTICE's bull "Dundee 7th" took the first premium. BRODIE & CONVERSE, and S. D. HUNGERFORD taking the first prizes for cows and heifers. In Alderneys and Grades, several very fine animals were shown; also working oxen and fat cattle. In Foreign Cattle, J. SNELL,



of C. W., took the first premiums for the best bull and cow—both Durhams.

**SHEEP.**—A very large number were on exhibition. In Long-wools, some animals of remarkable merit were shown. South-downs were not numerous, but very fine. The Merino class was very full. Saxons and Silesians made a good display, and some Shropshire-Downs were shown by J. LORILLARD, of New York, and C. PARSONS, of Riga. J. BETTRIDGE, of Riga, and G. H. & A. D. GAZLEY, of Pleasant Plains, took the best prizes for Long-wools; SAMUEL THORNE, the best in South-downs. SANFORD HOWARD, who has just returned from Europe, says that the South-downs bred by Mr. THORNE were equal to any of the same breed he saw in their native country. In Merinos, the prizes were pretty well divided. W. CHAMBERLAIN, of Red Hook, took most of the prizes for Silesians; and C. W. HULL, of New Lebanon, in Saxons.

**SWINE.**—Not very numerous, but good, principally Essexes and Suffolks, with some Berkshires and Yorkshires.

**POULTRY.**—A very large and excellent display—equal to the shows during the "hen fever;" but the rage for the large Asiatic breeds is much abated. Game, Dorkings, Spanish, Hamburg, and all the best kinds, were well represented. JOHN R. PAGE showed some fine Cayuga Black Ducks, some of which at six months old weighed 9 lbs. each.

**FARM AND DAIRY PRODUCE** was well represented, and the show of vegetables was very large. A mammoth squash, weighing 133½ lbs., exhibited by D. W. C. DEFOREST, attracted some attention; another attraction was a miniature seed store, fitted up by W. THORNBURN, of Albany.

**HORTICULTURE.**—A better show of fruit was never exhibited; and the number of exhibitors was very large, but we have not space to particularize.

**IMPLEMENTS AND MACHINERY.**—There was a magnificent exhibition in this department—probably the largest and best ever made by the Society. It is gratifying to mark the progress annually made in this direction. The farmer may well congratulate himself that he has now within his reach implements and machines which enable him to accomplish his labors with ease, cheapness and dispatch.

#### THE AMERICAN INSTITUTE.

This Association held its Annual Fair in the agricultural department, at New York, Sept. 21—23. It was not, however, a successful exhibition, mainly on account of the prevalence of the equinoctial. There was a very meagre attendance of visitors, from the same cause. The quality of the stock shown, as might be expected, was remarkably good.

Of **HORSES**, particularly carriage horses, the show was such as can only be got up in a wealthy city like New York. The Messrs. BATHGATE, of Morrisania, took the first premium for breeding stock in this class.

Of **CATTLE**, there were some excellent stock on the ground. SIMEON LELAND, of New Rochelle, took the highest premium in Short-horns; E. G. FAILE, of West Farms, in Devons; G. HARTSHORNE, of Rahway, N. J., in Herefords; and WILLIAM WATSON, of Westchester, in Ayrshires.

The **HORTICULTURAL DEPARTMENT** was remarkably good. Among the exhibitors in this class, Messrs. ELLWANGER & BARRY, and H. E. HOOKER

& Co., of this city, had a very large display of fruit, and took the first premium in almost every class in which they competed. There were some fine specimens of tomatoes and squashes, raised from seed recently imported from the Sandwich and Fejee Islands. A monster pumpkin was exhibited, weighing 175 lbs.

#### PENNSYLVANIA STATE FAIR.

The seventh exhibition of the Pennsylvania State Ag. Society took place at Philadelphia, Sept. 27—30, and proved entirely successful. The weather was fair and the attendance numerous—over \$23,000 having been received for admission fees.

An exciting attraction to this Fair was a trial of fire engines, both steam and hand-worked engines competing, 16 fire engines being on the ground.

**HORSES.**—Many of the animals were first class, and among them were some fine imported animals, as well as a good display of Mogsans and Black Hawks.

**CATTLE.**—In Short-horns, JAS. GOWEN, of Mt. Airy, exhibited a splendid herd. D. KELLY took the first premium in this class for his bull "Lord Barrington." Of Devons, the show was good, J. H. STRANDBERG, of Maryland, taking off the premium with his celebrated herd. Alderneys were also well represented, Dr. TWADDELL taking several premiums.

**SHEEP.**—But few premiums were offered in this class, and there was not anything remarkable about those on the ground.

**SWINE.**—The display in this class was one of the finest on the ground, principally of the Suffolk, Berkshire and Chester county breeds. The small breeds are evidently gaining favor.

The show in the **HORTICULTURAL DEPARTMENT** was such as can only be met with in Philadelphia. The display of grapes was very fine. Here, again, Messrs. ELLWANGER & BARRY, of this city, came in with a fine collection of fruits.

**IMPLEMENTS, MACHINERY, &c.**, were, as usual, plentiful; but we notice no novelties in this department.

#### FAIR OF THE ST. LOUIS AG. AND MECH. ASSOCIATION.

The Fair Grounds of this Association are probably the handsomest and best fitted up of any in the Union. Near the centre stands an immense amphitheatre, capable of seating 20,000 spectators. In the centre of this is erected a beautiful pagoda, from which a band of music enlivens the scene with its stirring strains. Around the pagoda is the ring for the display of the stock, all the animals in a class being led round the ring together, and the judges examine them and make their awards. The prize animals are then decorated with ribbons, and are led round the ring alone, a herald proclaiming in a loud voice the names of the owners.

The Fair was held Sept. 26—Oct. 1. The Premium List was larger than that of any other association in the Union, and brought exhibitors from a great distance. Last year, we visited this Fair, and were much disappointed in the character of the exhibition. This year, the show appears to have been vastly superior—one more commensurate with the great liberality of the Premium List.

The exhibition of horses was very large. All the notabilities of the turf were there, as well as the most celebrated roadsters and draft horses.

The premium of \$1,000 for roadster stallion went to "Stockbridge Chief," owned by Messrs. COOPER & CREEK, of Jefferson Co., Ky. The \$1,000 premium for thorough-bred stallions was carried off by "Revenue," owned by A. BUFORD, of Woodford Co., Ky., against 31 competitors, among which were "Lexington" and "Dubloon." The sweepstakes of \$300 for the best stallion on the ground, went to "Dubloon," owned by H. E. MOORE, of Cooper Co., Mo.; and that of \$200 for the best mare, went to "Belle Sheridan," owned by R. S. MORRISON, of Lexington, Ky.

In the cattle department, the show was remarkably good, J. N. BROWN, and J. D. SMITH, of Ill., and R. A. ALEXANDER, of Ky., being the principal exhibitors. The \$1,000 premium for the best aged bull, was awarded to "Second Duke of Airdire," owned by R. A. ALEXANDER, of Ky. The sweepstakes of \$300 for the best bull of any kind or age on the ground, went to "King Alfred," owned by J. N. BROWN, of Ill.; the \$200 sweepstakes for the best cow, to "Tulip," owned by the same breeder.

In every other department, the show was very superior.

The attendance was very large, considering that the weather was rather wet and stormy during the first week, which necessitated a continuance of the Fair into the second week, and it closed on Oct. 4, with the usual lady equestrianship.

#### THE PROVINCIAL (C. W.) AGRICULTURAL FAIR.

This Fair was held at Kingston, C. W., Sept. 26—30. The weather, with the exception of a few showers on the opening day, was fine and dry throughout. Old Kingston, one of the most beautifully located cities in Canada West, excelled herself in the preparations made for this Fair, a handsome crystal palace having been erected on the grounds, for the exhibition of the articles in the Manufacturing, Horticultural, and Fine Arts Departments; and all the arrangements made were on a scale worthy of the occasion. The entries were numerous, footing up to some 4,500.

**HORSES.**—Canada has always been famous for her heavy, active, draft horses, and the show in this department was very fine.

**CATTLE.**—*Durhams.*—In this class the exhibitors were numerous, and the animals of the highest character, F. W. STONE, of Guelph, WHEELER, of Scarborough, and several others, having fine herds on the ground. A. HOGGE, of Guelph, took the first prize for the best aged bull in this class.

*Devons.*—A numerous class, of superior quality, the herds of N. CHOATE, of Hope, and W. H. LOCK, of Yarmouth, attracting much attention, and taking the best prizes.

*Herefords.*—A small class, all the prizes being taken by one exhibitor, CHAS. SKENE, of Amherst Island.

*Ayrshires.*—This excellent milking breed was well represented, and the prizes divided among a great many exhibitors.

*Galloways.*—This breed came out in greater force than ever before, and appears to have attracted much attention, from their hardiness, symmetry, and beauty. In this class the prizes were a good deal divided, J. FLEMING, of Vaughn, taking the prize for the best aged bull. The herds of WM.

RODDICK, of Hamilton township, and J. JARDINE, of Saltfleet, took a leading rank in this class.

**SHEEP.**—In this class, as usual, the long-wools predominated. GEORGE MILLER, of Markham, and J. SNELL, of Chinguacousy, taking most of the prizes on Leicesters. In Cotswolds, J. SNELL, of Chinguacousy, took the prize for the best aged ram, the other prizes in this class being divided between this exhibitor and F. W. STONE, of Guelph. W. RODDICK, of Hamilton township, showed quite a flock of Cheviots, and took every prize. South-downs were not so numerous as usual, perhaps, but some splendid animals were shown, J. SPENCER, of Whitby, and GEO. MILLER, of Grantham, carrying off the first prizes. Merinos and Saxons were exhibited in small numbers, but they were of good quality. Fine-wool sheep receive little attention in Canada. J. RYMAL, of Barton, and GEO. MILLER, had all the prizes in this class divided between them.

**SWINE.**—Numerous and good, the small breeds seemingly having the preference.

**FARM PRODUCTS.**—The show of wheat and other grains was very fine. The Canada Company's prize of \$100 for the best 25 bushels of fall wheat was taken by THOS. VICKERS, of Clarke; the prize for the best two bushels of fall wheat went to D. CAMPBELL, of Glengarry. Both samples were excellent, but we did not ascertain their weight.

**HORTICULTURAL.**—Considering the deficiency of fruit in Canada, this year, the show in this department was very good. We see, by the prize list, that the old Niagara District, once so famous for its peaches, has won many laurels on this occasion, Judge CAMPBELL, of Niagara, having no less than twenty-three prizes for fruit attached to his name.

**MACHINERY AND IMPLEMENTS.**—The show in this department was both large and good; and we notice one good feature, namely, that the threshing machines and other implements were subjected to the test of a trial before deciding upon their merits.

In all other departments, the articles on exhibition were of a superior quality, but the list is too numerous for us to particularize.

On the whole, this Fair was one that the Canadians may well be proud of, though a much smaller number of people attended than at Toronto last year.

#### ILLINOIS STATE FAIR.

This Fair, held at Freeport, Ill., September 5—9, appears to have been very successful. The grounds were finely located, the arrangements very good, and the weather throughout proved propitious. The fact of the United States National Fair being held so shortly afterward at Chicago, prevented many of the best breeders of stock in that State from sending their choicest animals to the State Fair. This was most particularly the case with horses, the animals in this class not coming up in numbers or quality to some former years.

The show of cattle was very fair, but not up to that of last year. Among the Short-horns were the fine herds of J. N. BROWN, of Sangamon county, and N. M. CHAMBERLIN, of Ohio, the latter of whom carried off the premium for the best bull in this class, and the former the first premium for the best herd on the ground. The Devons were well represented: the herds of JONATHAN PERRIN, of Hope county, and C. D. BENT, of Iowa, ranking first in this class. Herefords and Alderneys were

not numerous, but the herds of THOS. ASTON, of Ohio, and a few choice animals from Maryland, were of a quality hard to beat.

Of sheep, the show was first rate; some very superior Long-wools appearing among them from the flock of J. MCGLASIEN, of Pelham, C. W., who took several prizes. Of South-downs, the flock of SAMUEL TOMS, of Ohio, containing many choice imported animals, carried off the ribbons. Fine-wools appeared in large numbers, and of fair quality. C. ROSENTEIL, of Freeport, E. F. McCONNEL, of Chatham, and HAMMOND & BARNES, of Wheaton, taking the first premiums in this class.

SWINE.—In this class the Essexes and Suffolks were well represented. The Hon. JOHN WENTWORTH, of Chicago, and S. K. RUBLE, of Wisconsin, and W. PEVERIL, of Rockford, taking the best prizes.

FARM PRODUCTS, AND FRUITS, &c.—In this department the show was better than in any former year. The samples of grain shown were first rate, and the fruit, of which many of the best specimens were from "Egypt," were such as only the rich warm soil of Southern Illinois can produce.

Of Implements generally, the number on exhibition was very large, among which Corn-shellers and Sugar Cane-mills showed the most novelties. The great attraction of the Fair was FAWKES'S Steam Plow, and to it the State Society owe much of the success of the exhibition this year, in a pecuniary point of view. A trial was had of this plow, which performed all that was anticipated from it, and it was awarded the premium of \$3,000, and covered with garlands and ribbons by the ladies, and its merits duly set forth by the speech-makers of the occasion.

#### OHIO STATE FAIR

Was held at Zanesville, Sept. 20—23. Great preparations were made for this Fair, and the material for a good show in several of the departments came to the ground, the entries numbering up to 2,506. But the weather proved inauspicious, and considerably lessened the attendance of visitors and live stock. The receipts only reached \$9,500.

HORSES.—There were fewer than usual, but among those present were some very fine imported animals from the stables of Messrs. ALEXANDER and WOODROFFE, of Kentucky.

CATTLE.—The show of these was small, and many of the old familiar faces were absent. The prize herd of Short Horns was that belonging to the estate of the late Mr. LANG, of Highland Co. Of Herefords, Devons, and Ayrshires, the *Ohio Cultivator* says: "There were just enough to swear by," THOS. ASTON and G. W. PENNY showing some good animals.

SHEEP came out in respectable numbers, and of good quality, as did also swine.

MACHINERY AND IMPLEMENTS.—This department was the best of the show. Among the machinery were some portable steam engines for farm purposes; sugar evaporators; and a new monster traction engine, propelled by horse-power, to which a mole plow was attached, that opens the channel, and cements it as it travels. Of implements, the plows were the great feature. There were also some specimens of drain-tile, from the Woodstock works.

#### MICHIGAN STATE FAIR.

This fair was held at Detroit, October 4—7. The weather proved fair, and there was a good attendance of visitors. The entries numbered 2,314.

HORSES.—The show of these was large and good. Among them were some from Vermont and Canada. M. E. CROFOOT, of Pontiac, showed a fine team of matched horses (greys), which took the first premium.

CATTLE.—Short-horns mustered strong; the first premium for aged bulls going to S. W. DEXTER, of Dexter, Mich. A. & J. BARBER, of Avon, N. Y., showed a fine herd in this class, and took several prizes. A good many Devons were shown, some of which ranked high in quality. C. RICH, of Lapeer, took the first premium for aged bulls, and BALLARD & SONS, of Niles, and J. ALLEN & SONS, of Coldwater, took several prizes for their stock in this class. Herefords and Ayrshires did not show largely, but those on the ground were good.

SHEEP.—A good show, principally fine-wools. H. HITCHCOCK, of Lyons, and B. PECHAM, of Albion, showed some fine Spanish Merinos, and took the first premium in this class. N. S. SCHUYLER and J. L. THOMPSON, of Coldwater, took the first premium in French Merinos. Saxons and Silesians also mustered up pretty strong. In South-downs, S. TOMS, of Ohio, proved invincible, carrying off the first premiums. Of Leicesters and Cotswolds, several fine animals were shown, mostly from Canada.

SWINE.—Not very numerous; nearly all the prizes went to the Suffolk and Essex breeds.

The other departments were all well represented.

#### NEW JERSEY STATE FAIR.

This Fair, held at Elizabeth, September 13—17, was the most successful ever held in the State. The entries numbered 1,059, and the receipts at the gate amounted to \$7,000. The show of horses was very numerous and superior, and embraced some of the champions of the American turf.

CATTLE.—In Durhams, G. HARTSHORNE, of Rathway, and B. & C. S. HAINES, of Elizabeth, took most of the premiums. In the other classes, Devons and Ayrshires were most numerous, and many fine animals were shown.

SHEEP.—In this class the entries were all of long and middle-wools, no fine-wools being shown. The premium for the best ram went to B. & C. S. HAINES, for their imported Hampshire Down bucks—a variety of South Downs meriting more attention than they have yet received in this country.

All the other classes were well filled. One novelty was a goose 85 years old.

The weather was fine, and all the arrangements gave perfect satisfaction.

#### VERMONT STATE FAIR.

This Fair, held at Burlington Sept. 13—16, was very successful. Horses were the predominant feature. There were 544 entries of horses, besides mares with foals! "Young Columbus" took the first prize on the course. The Morgan stock was most numerous, though "Ethan Allen" and "Black Hawk" had some worthy representatives. A four-year-old colt, owned by Mr. BALDWIN, of Ticonderoga, N. Y., is said to have exhibited a promise of being a worthy successor of "Black Hawk."

## NOTES FOR THE MONTH—BY S. W.

ONTARIO COUNTY FAIR at CANANDAIGUA.—Here is one of the best fair grounds in the Empire State, if we take into account the grand circular show building over two hundred feet in diameter. It is built around an open gravelled centre, in the middle of which is the judges' stand, around which the equines and bovines must perambulate when they receive their awards. Seven thousand spectators well seated, may then look on from the circumambient open terraced seats of the structure. The outside part of the building, above and below, has shelves around the whole 600 feet circle, to contain the articles *en exposition*. These are so conveniently placed as to give ample room for perambulation and inspection. Eight thousand dollars was expended in completing this large, durable, and convenient structure, but not one cent for ornament or paint, as the enterprising projectors had the good taste not to mar the show of nature's fair productions, and man and woman's choicest handicraft, by ornate appliances to a show room of fine things, lest it should detract from them, like putting Jack on the Gentleman. The display at this fair was in every department creditable to the great rural and extra fertile county of Ontario; and the rare fruits and vegetables, hot-house and cold grapery productions, contributed by the magnates of this modern Elysian Atlantis, Canandaigua, gave an earnest that even the wealthy ones here well know how to overcome beautifully that *tedium vite* that wealth so often brings with it.

Here was a fine show of fat bovines, working oxen, and milch cows, of every grade; fat Leicester and South-Downs for mutton, and fine-wooled Spanish and Merinos, but no Saxons; a fine show of fat porcines and spring pigs, and splendid equines of either sex. But as no trial of speed or trotting was allowed, a tight-rope performance and a balloon ascension came off as the equivalent, and there is no doubt but that this brought a larger house than any equine feats would have done. The receipts were about \$2,000, and \$1,100 was paid in premiums at the close of the fair.

The show of farm implements, household products, mechanical fabrics, paintings, photographs, &c., &c., was extensive, and very creditable to the fair. Some fine specimens of buggies and pleasure carriages made at East Bloomfield, must be hard to beat.

On the second day, during the balloon ascension, it was computed that the number of men, women, and children present amounted to twenty thousand; every vacant lot and the road sides for a long distance were full of horses and carriages, while every stable in the village was crowded with horses. During the rope-walking over the enclosed circle, the terrace was crowded with a sitting multitude, while the area centre was densely filled with men and women standing, many of them with children, as well as infants in their arms. But it was purely a Yankee gathering—no German, and very little of the Celtic brogue was heard there; yet unlike Yankee pageants generally, much jewelry and lace was left at home; here was no attempt at showing off poor humanity, but all was in keeping with that quiet good order and good taste which should always grace an agricultural fair. True, there was some grumbling, as is usual among the

premiumless, when the awards were announced; but good sense, good nature, and, above all, good breeding, predominated, and the judges, poor fellows, were forgiven.

The first evening of the fair, after the only wet day, an address was delivered at a hall in the village by Mr. OGDEN, of Penn Yan, to a thin but respectable house. The address was a forcible, well-written appeal to farmers to pay more attention to the education of the schools, and to scientific culture generally, as the true and only means by which they can ever expect to attain that political position in society to which their high calling entitles them; and until farmers' sons are thus well educated, they must not, as they now do, complain that they are ruled and governed by lawyers and professional men in the councils of the nation.

CHAUTAUQUE COUNTY.—This very fertile and very superior grazing county has probably suffered more from frosts and grasshoppers this season, than any other county of the same cultivated area in the Empire State. But from the following diary kept by a brother there, it will be seen that in spite of the Siberian season, the pasturage on the high lands and valleys of Chautauque has at least doubled that of like extent in many of the fair counties in the calcareous regions of Western New York, where the temperature has been so mild that meadows, orchards, and cornfields have given full increase:

"At sunrise on the 4th June, the mercury in the town of Gerry stood at 22 deg. above zero, and, as may be supposed, all vegetation, and even the ground, was frozen—not an apple escaped destruction, and the grass of every meadow was killed to the ground. Yet so favorable is this soil and climate to grass-growing, that every meadow that was cut the week after the frost, yielded a large second crop in August; while that which was left uncut, amounted to nothing. In many instances there was not half a ton of hay cut from the acre, and that was only a soft leaf, without stalk or seed. Millet and corn sown for fodder after the frost, also attained a large growth, and if the grasshoppers were not, we should yet exult in the prospect of winter fodder.

"July 5th.—On the road to Jamestown, many farmers still continue to cut their frozen meadows to get a second growth. I saw thirteen mowing machines at work, including eight different patterns. The rains are frequent, and pasture never was better. My neighbor now makes 200 lbs. of cheese daily, and sometimes 240 lbs.; and the quantity of premium butter made here this summer would astonish the grain-growers.

"A letter from Kansas says, the mercury averaged 97 deg. at 2 P. M., from the 26th June to July 20th. They make corn there, but no premium butter, and the coarse grass wears out upper leather.

"July 31st.—Mercury at Gerry 60 to 88 deg. averaging 15 deg. higher than for the last eight days, and, for the first time here, dry and dusty, with corn leaves rolling at noon. Think of that, Seneca Farmers, who with so many unfrosted blessings complain of drouth, unless it is during haying and harvest.

"August 1st.—One inch of rain, and vegetation rampant. Some *King Philip* corn silked in gratitude for the few past days of dry hot weather.

"August 3d.—More rain, with a high growing temperature.

"August 4th.—Eleven-sixteenths more rain; mercury 70 deg. at sunrise; a hot night for this region. Cutting ripe oats; grasshoppers destroyed one-fourth.

"August 5th.—Mercury 45 to 75 deg. Great grass weather, though not the best for butter. One cow gives 240 quarts of milk weekly. We heat the milk in pans over boiling water. Young locusts and butternuts still denuded, without signs of life since the June frosts.

"August 10th.—Corn leaves rolling. Mercury 90 deg. at 2 P. M. An inch of rain next day to feed the grass.

"August 12th.—Two inches of rain, a subaqueous point in our Siberian summer, as rain has now fallen 17½ lbs. to the square yard in eighteen hours. Grasshoppers doing their perfect work; every pea leaf in the field is devoured; outside rows of corn ditto; twenty on one cabbage in the garden; turnips denuded.

"August 13th.—Mercury at 60 deg.; cloudy, damp; first rate premium butter weather. Another cow gives 200 quarts of milk a week.

"August 15th.—Mercury 56 to 90 deg. No musquitoes this summer. First cucumbers; potatoes egg size; beets and squashes large; garden sweet corn all gone to the hoppers, who kill the ear by eating the silk.

"August 16th.—Mercury 60 to 90 deg. One and one-eighth inches rain fell. Picked first *King Philip* corn to boil, planted 20th June—fifty-eight days from the seed. Seneca can't beat this. Millet and corn fodder, planted after the frost, rampant. From the 8th of June to the 16th of August we have had 407 lbs. of rain to the square yard, with a few very hot days. Four rods of turnips next the cow-yard, that have escaped the hoppers, yield very large—fifty bushels at least. Farmers who are short of winter fodder have begun butchering, and good pieces of beef may now be had at four cents a pound; shanks four cents each.

"August 19th.—Mercury 58 to 67 deg. An inch of rain fell last night. When the mercury falls below 60, grasshoppers hibernate, and the dairy maid rejoices in the quality and quantity of her butter; but corn is now in abeyance. A half a mile of black-birds to-day devoured myriads of hoppers, apparently without lessening their numbers; even our porcines have acquired the art of catching grasshoppers.

"August 20th.—Mercury 40 to 74 deg.—too cool nights for corn; hoppers paralyzed; large ones disappeared, and clouds of black-birds from the swamps exterminate the small ones. Grass seems to have grown half the last few days, as the ground has been sufficiently moistened. Potatoes good.

"August 21st.—Mercury 44 to 74 deg. First succulent feast to-day, as beans row shell. Tomatoes egg size. I find that there has been frost two mornings this month, both in this county and Cattaraugus, probably when the mercury was 40 here at sunrise. Thus we have had frost every month this year.

"August 24th.—Rain nine-sixteenths of an inch; mercury 57 to 73 deg. Twenty-five years ago I sometimes got a peck of potatoes from one hill, now I rarely get a gallon, from the best of soil, sometimes not half that. There is less vegetable

moild in the soil now; but that does not account for all the discrepancy.

"August 26th.—Mercury 57 to 74 deg. A peddler with beef steak at five cents every other day. Rain one-sixteenth of an inch—very light for this region; but long hot drying days are not.

"August 27th.—Mercury 56 to 66 deg. Rain last night five-eighths of an inch.

"August 28th.—Mercury 44 to 63 deg. On the 3d of June the mercury here did not rise above 34 all day; at dark it was 30; next morning, 22.

"August 29th.—Mercury 36 to 62 deg. It was two degrees colder at sunrise than at day-break, and a shirt was frozen on the grass.

"August 31st.—Mercury 47 to 70 deg. Five-sixteenths of an inch rain. Grasshoppers decreasing fast.

"September 1st.—Mercury 55 deg. Spring carriages in procession, bound to a picnic. Forty years ago there were no spring carriages here; so much for premium butter. I forgot to say that the frost froze and destroyed our garden peas in the incipient pod.

"September 2d.—Mercury 47 to 69 deg. Aurora as bright as a full moon at its zenith at 3 A. M.; east cloudy; west generally clear. Three-sixteenths of an inch rain last evening; a cold northern wind at 6 A. M.

"September 3d.—Mercury 47 to 76 deg. The great aurora of the 28th ult. was scarcely less remarkable than that of yesterday morning. I could read by either.

"September 4th.—Mercury 47 to 60 deg. Rain last evening seven-sixteenths of an inch.

"September 6th.—Mercury 38 to 60 deg. A dense fog kept off frost. No corn glazed yet.

"September 7th.—Mercury 40 to 60 deg.—warmest at sunset in sixteen days.

"September 8th.—Mercury 37 to 69 deg.

"September 9th.—Mercury 40 to 75 deg. Corn glazes fast. A week dusty roads.

"September 10th.—Mercury 60 to 70 deg. Some corn will now do for seed. We may have fifteen bushels for Johnycake meal, and for fattening our pork.

"September 11th.—Mercury 65 to 69 deg. Rain yesterday nine-sixteenths, and five-eighths of an inch to-day.

"September 12th.—Mercury 45 to 70 deg.

"September 13th.—Mercury 58 to 68 deg.

"September 14th.—Mercury 47 deg. all day.

"September 15th.—Mercury 34 to 57 deg. Vines a little cut by frost last night."

It may be proper here to say that the frost of the 15th September, so light in high Chautauque, was as severe in this region of Seneca county as the June frosts, and much corn fodder was injured by it. Corn ripe generally.

Metlinks the above diary goes far to show why they make so much good hard butter in Chautauque. Every farmer there this season sells his butter at 22c at home on contract for the New York market; while here, on the line of the Central railroad, butter has sold through the season at from 14 to 16c. The New York dealers will not contract for it, and only buy it when sent there at about grease prices. Truly, Chautauque can afford to be denuded by frost once in a life-time.

Waterloo, N. Y., October 7th, 1859.

## NOTES ON THE SEPTEMBER NUMBER OF THE GENESEE FARMER.

**HARVESTING CORN.**—A great difference in opinion, in regard to the best method of harvesting corn, exists among farmers. It would seem that a few carefully conducted experiments might settle the question, in all its bearings. But when such experiments are made, the results are so contradictory that we still remain about as much in the dark as though the experiments had neither been made or reported. Some years ago, Col. CLARKE, of Massachusetts, tried the experiment of cutting the stalks at the usual time of topping the corn, on a certain number of rows, and left an equal number to ripen with the stalks uncut. The result was, he came to the conclusion that there would be a loss of ten or more bushels of corn per acre, where the yield would be sixty bushels per acre, by cutting the stalks. Judge BUEL, in some of his writings, said there would be a similar gain by cutting up and stooking the whole crop as soon as the corn had become glazed. SOLON CARTER, of Worcester county, Mass., in 1856, made an experiment to test the merits of the different methods of harvesting corn. Lot number one, cut at the ground and stooked September 24th. Lot two, had the top stalks cut in the usual way at the same date. Number three, left standing whole until October 29th, when each of the lots were harvested, husked, &c. To make a short story of it, the lot cut up and stooked, when husked, dried, and shelled, was much the poorest; that having the stalks cut, every way the best; and the lot left with its stalks uncut, was much better than the stooked lot, but not quite equal to the lot having the stalks cut. Who can reconcile these discrepancies? A large majority of farmers in this section of the country prefer cutting the stalks when the grains have mostly become glazed. They then cut up the corn near the ground when ripe, cart to the barn, and husk it—believing this the better way. Some others cut and stook; but very few leave the corn untopped to ripen in the field. This 14th of September, a large portion of our corn is not yet glazed, but untouched by frost; weather cold for the season. The safest way, under present circumstances, is to cut and shook, whether we, as a general rule, like the method or not.

**"GROW GOOD GRASS AND KEEP GOOD STOCK."**—Good advice, and a good article, and needs no special comment.

**HEATING NEW MILK,** in cold weather, soon as strained, has been practiced hereabouts with good success.

**FAT PRIZE CATTLE.**—A very reasonable article, the numerous agricultural exhibitions, soon coming off, will give judges a good opportunity to exhibit their stamina and independence in awarding the prizes. Captain TANNER and Mr. PHILLIPS have done themselves honor in awarding according to merit. May their example be extensively followed in this country.

**A WHEAT FARM BECOMING A FARM OF ALL-WORK.**—Dr. J. B. SMITH's letter is full of practical instruction to wheat growers, in those sections of the country infested by the midge. But his letter requires a more extended notice than I can now give it.

**STORING AND FEEDING TURNIPS.**—Farmers in this region have not much trouble in storing their tur-

nips. The growing of the Swedish and other turnips does not take among our farmers. Insects, drouth, and fingers and toes, are serious drawbacks upon their culture here. There can be no doubt, however, but a good supply of succulent food for our farm stock, in connection with their dry forage, would conduce much to the health, thrift, and well-being of the animals, and the pecuniary interest of their owners.

**CUTTING GRASS BY MACHINERY.**—I have concluded to let BUNDY & Co. have all the talk about mowing machines. I have already business enough upon my hands without rushing into their controversy.

**WEEDS IN THE GARDEN.**—I have seen a great many more gardens ruined by excess of weeds, than I ever did by deficiency of these pests. To keep up the fertility of a soil under continued cropping, requires a rotation of manures, as well as of crops.

**PLASTER OF PARIS FOR GENERAL CROPS.**—There has been a vast deal of ink wasted by writers in their attempts to unravel the mysteries attending the action of an application of plaster to different soils and crops. Nothing definite is yet known. Carefully conducted experiments are the safest tests for each individual farmer.

The two articles on scientific and practical farming, and farming as a science, will bear even more than a *third* reading, and so will H. W. BEECHER's agricultural creed. But as they all write better than I can, I will skip over to the paragraph on

**CUTTING GRASS FOR HAY,** and will just observe, that your Belfast correspondent has so exactly expressed my views upon the subject, that I have not an additional word to say.

**THE AMERICAN FARMER,** by A. B. RATHBUN.—A truthful and well written article; but I have not time to review his article. Trust he will follow his hand. 'Tis such men as Mr. R. that are doing, and successfully too, so much toward elevating the standard of the working farmers—I don't mean Prof. MAPES' *Working Farmer*, but the real tillers of the soil.

At page 285, A. BAER, JR., tells of the diseased apple trees in Ohio and Indiana. The same unfortunate state of things exists over large districts in the Northern and Eastern States. Insects, cold winters, over manuring, lack of manuring, and proper culture, and various other ills that apple trees are subject to in various ways, seem conspiring to exterminate a large portion of our apple trees. But we are hoping for a change of times in this matter. LEVI BARTLETT.

Warner, N. H., September 14th, 1859.

WE trust Mr. BARTLETT will oblige us by such notes each month. We know of no one, from a wide range of practical and scientific information, and from a long acquaintance with the agricultural and horticultural literature of the day, so well qualified for the task. EDS.

Hogs should be kept dry and comfortably warm, while being fattened. They should be fed in clean troughs, and their appetite so closely watched that no food is given them to be left from one meal to another. Nothing should be omitted which will promote their quietude, for on this greatly depends the accumulation of fat.

## IMPROVING THE BREED OF COWS.

The *Encyclopedia Britannica* says:

"The loss from breeding inferior cattle is far greater than those concerned seem to be aware of. It is impossible to estimate this loss accurately, but from careful observation and inquiry, we feel confident that it amounts to not less than \$12 a head on one half of the fat cattle annually slaughtered in Great Britain. If this be so, it follows that without spending a farthing more than is done at present on food, housing, and attendance, the profit which would accrue from using only the best class bulls would be equivalent to an advance of three cents a pound on the price of beef, as regards half of the fat bullocks brought to market. This profit could be secured by a very moderate outlay, for if properly gone about, the best class of bulls might be employed without adding more than a dollar a head to the price of each calf reared. We may surely anticipate that such a palpable source of profit will not continue to be neglected by breeders of cattle."

If these remarks are applicable to the farmers of Great Britain they are even more worthy of the attention of farmers of this country, where the proportion of inferior cattle is far greater than in England. The introduction of improved breeds of cattle has already added millions of dollars to the wealth of this country; but though much has been done in this direction, there is still abundant room for further improvement. The great majority of cattle sent to market are of a very inferior order. The following remarks, by the same writer, are particularly applicable to our native cattle. When crossed with a Short-horn, Devon, or Hereford bull, the result is highly encouraging, so far at least as beef producing qualities are concerned:

"It is doubtless important to have both parents good; but in the case of ruminants, the predominating influence of the male, in determining the qualities of the progeny, is so well ascertained that the selection of the bull is a matter of prime importance. We are able to state from ample personal experience, that by using a bull that is at once good himself, and of good descent, a level and valuable lot of calves can be obtained from very indifferent cows. In Berwickshire it is the practice to employ chiefly married laborers who reside on the farm, and one part of whose wages is the keep of a cow. These laborers usually give the preference to small cows and—so that they are healthy and yield milk plentifully—care little about their breed or other qualities. A good judge of grazing cattle could not easily imagine a more unpromising breeding stock than is furnished by these cottagers' cows; and yet when they are coupled with a really good Short-horn bull, it is truly surprising to see what admirable cattle are produced from them."

BROADCAST vs. DRILLING WHEAT.—"In Scotland, at least," says the *Encyclopædia Britannica*, "often-repeated trials have shown that larger crops of wheat are obtained by broadcasting than by drilling."

## MOWING MACHINES—FINALE.

EDITORS GENESEE FARMER:—It is now nearly two years since I undertook to show the impropriety, or rather that there was no necessity for the introduction of any kind of patent right machinery into the State of New York, or elsewhere, for the purpose of saving the time or money of the farmer. Since my first article on the subject, in answer to Mr. STREET, of Ohio, I have been induced to reply to several others in different parts of the country, until I begin to feel, in common with many of the readers of the *Farmer*, that about enough has been said upon the occasion. At least for the present, especially as Messrs. STREET and NICHOLS have become a little personal in their remarks. It is true that I had hoped to have been the means of doing a little more good toward all the gentlemen on the wrong side of the question, but it has turned out otherwise. In fact, I am afraid, like EPHRAIM, they are "joined to their idols"—iron mowing machines, costing about \$100 each—and we will have to let them go. The "good seed" sown by the way side in "days of old" was speedily devoured, and let us cast no more in any of the *Streets* of benighted Ohio. Mr. NICHOLS has now favored us with another instalment of his name—not a very pretty one, and too Frenchified, or something worse, for an old fashioned Yankee farmer to have much hopes of, and we can afford to let him go. So with all the rest, excepting, perhaps, the "Small Boy" in Michigan, whom we will keep in hand a while longer, hoping to make something out of him one of these days. But if we *should* fail with young hopeful also, to be candid, I think "the country will still be safe," and that the farmers of New York and Ohio will always have a way to cut their grass and grain at the proper time, and continue as ever to contribute their large share toward the prosperity and happiness of our common country.

Long life and prosperity to all my *adversaries* in the protracted discussion now brought to a close.

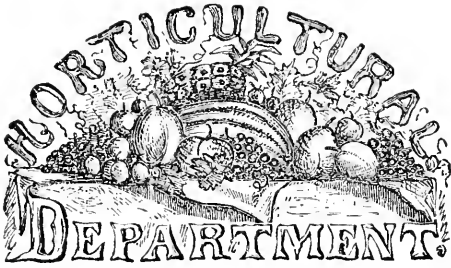
Orford, Chenango county, N. Y.

E. E. BUNDY.

SAVE YOUR HAY-SEED.—Many farmers never think of saving the offal from the cattle or horse manger, but throw it away, or into the manure heap. In either case the seed is lost, and in the last it becomes a great nuisance, if the manure be applied to hoed crops. An old writer says he "saved sufficient hay chaff one winter from feeding twenty-three head of animals, to stock down ten acres of meadow." Would it not be better, however, to cut the grass earlier and thus lessen the quantity of seed which shells out in feeding?

CATTLE YARDS should be well littered with refuse straw. It absorbs the liquid, and prevents much of this valuable part of the manure from running to waste. It augments the quantity of the manure, and adds largely to the comfort of the stock. A dry, sheltered, well-littered barn-yard, is a pleasant place in winter—you will be inclined to spend considerable time there—and we all know that cattle and sheep thrive much better for being looked at!





### FALL WORK IN THE GARDEN.

At this season, so much is to be done that a word in reference to some points of garden-culture may not be unprofitable.

**BLACKBERRIES** and **RASPBERRIES** should have all their old canes cut away, close to the ground, and the young suckers removed, leaving only four or five of the stronger in each hill. All the superfluous plants may be made into a new plantation, if desired. A good top-dressing of manure applied now, to be finally spaded in, in the spring, will repay the labor with a generous increase of fruit. In the more Northern States and the Canadas, it is highly beneficial, if not necessary, to bend the canes down, so that the tops may lie on the ground, and be covered with a little earth.

**CURRENT BUSHES** may be pruned of all old or diseased wood, and the new shoots partially cut back, which will ensure a more vigorous growth the ensuing season. Black Currants should be pruned, with the purpose of obtaining a supply of new wood from the bottom every year, as it is from such wood only that fruit is obtained.

A layer of coarse manure placed upon the Strawberry beds will serve the double purpose of enriching the soil and preventing the plants from being thrown out of the ground by frost. If the plants stand too thick for fruiting well, they should now be thinned out.

**DWARF PEAR** and **DWARF APPLE TREES** may have their young wood cut back one-half or two-thirds, attention being paid to the symmetry and the peculiar habits of each tree. Unless dwarf trees are thoroughly pruned, annually, thus promoting the growth of strong wood, their tendency to overbear will soon exhaust them of their vitality, and promote their early decay.

During the latter part of this month, and through December, Grape vines may be pruned and securely fastened to their trellises, or, if tender, laid down and covered with straw or litter.

**ROSES**, **SPIREAS**, **DEUTZIAS**, **ALTHEAS**, and all other shrubs that produce their flowers on the new wood, should be well shortened in.

It is not too late, any time this month, to plant spring-flowering bulbs, such as Crocuses, Hyacinths, Tulips, &c. Where these are planted, let the soil be enriched with well-rotted manure, and spaded deep, and of fine tilth. Crocuses and the smaller bulbs should be covered about two inches deep, and Hyacinths and Tulips about four inches.

**LILIES**, which deserve a place in every garden, may now be planted; and on no account should it be deferred until spring, which would prevent them from blooming. *Lilium Japonicum* and *L. longiflorum* are exceptions to this remark, and should be treated quite differently. They should be taken up in the fall, before they have been injured by frost, and preserved in dry sand during the winter, and planted in the spring, as early as the ground can be worked.

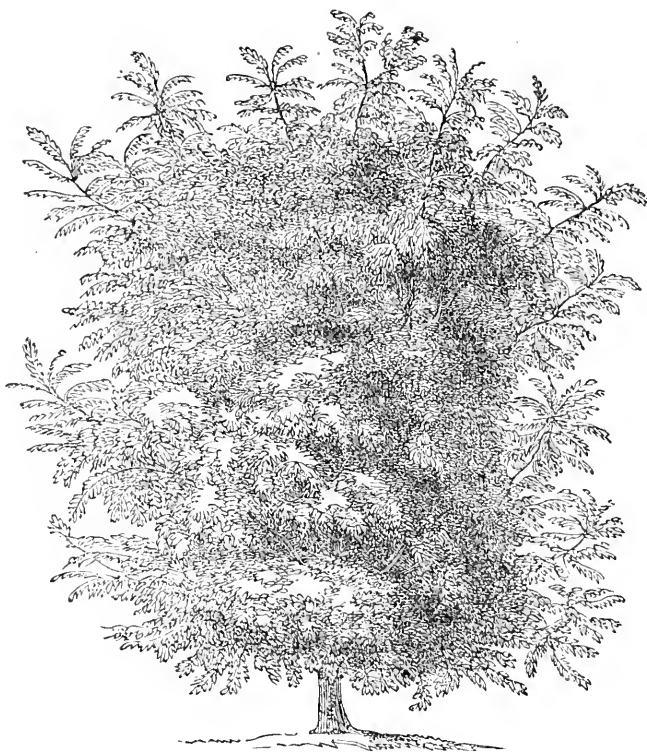
**PEONIAS** do much better when transplanted at this season, than in spring.

Let all the rubbish be cleared away. Sticks that have been used in tying up tall-growing plants, should be gathered together and packed away for future use.

Gravel walks may be rolled hard, and grass edgings trimmed, and every thing made to assume as neat an appearance as possible, for the winter season.

Many other things will be found to be done, which we can not here mention. A well-kept garden and lawn are sources of gratification during even the most inclement parts of the year.

**CATAWBA GRAPES.**—We have not seen a perfectly ripe bunch of Catawba grapes grown in this vicinity the present season. Indeed, the Catawba seldom or never ripens perfectly here in the open air on the trellis. We have seen some this season growing against the wall of a house that were nearly ripe, especially those bunches which grew near the end of the vines, some thirty feet from the ground. The bunches and berries were very large, but not ripe. The President of our Horticultural Society informs us that he tasted some Catawba grapes grown this season at Niagara Falls on the trellis, that were *perfectly* ripe, and much larger than the Catawbas received here from Cincinnati. The climate along the Niagara river is undoubtedly influenced materially by the immense body of water passing over the Falls, and by Lakes Erie and Ontario. The finest grapes we have ever seen in this State were grown in Chautauque county, on a high ridge of sandy land. Whether this is to be attributed to soil and culture, or to the climate, we can not say—probably to all three.



BUTTERNUT TREE—JUGLANS CINEREA.

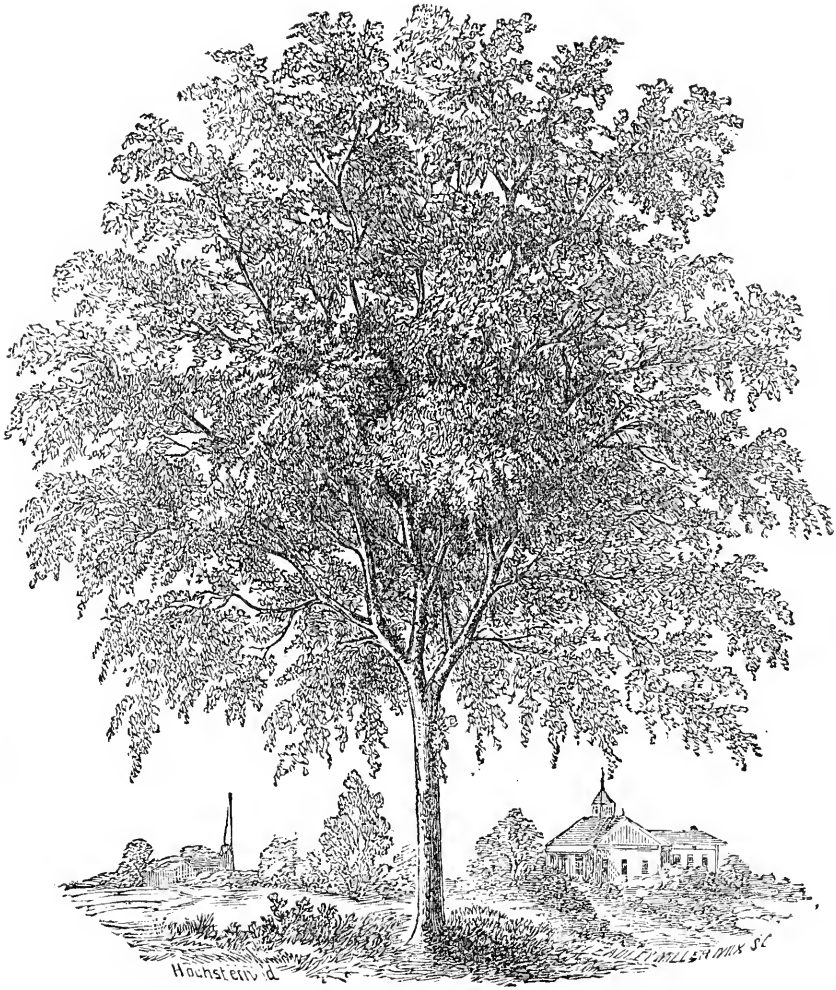
### THE BUTTERNUT TREE.

ABOVE we present a beautiful cut of the Grey-barked Walnut or Butternut tree (*Juglans cinerea*). LONDON, notwithstanding the great difference in the fruits, considers the Butternut only a variety of the Black Walnut (*Juglans nigra*). MICHAUX observes that the two species, when young, resemble each other in their foliage, and in the rapidity of their growth; but that they are distinguishable at first sight when arrived at maturity. The trunk ramifies at a less height than the Black Walnut; the branches extend more horizontally and spread widely, producing a large and flat tufted head.

The Butternut is a native of North America. It is found in Upper and Lower Canada, and in the temperate regions of the Union; but not in the lower parts of the Carolinas, Georgia, and East Florida. MICHAUX says he found no trees elsewhere so large as in New Jersey, and on the banks of the Hudson. On cold, unproductive soils, interspersed with large rocks, he has found them 50 ft. high, with trunks measuring 10 ft. to 12 ft. in circumference at five feet from the ground; the roots extending horizontally, close under the surface,

and with little variation in point of thickness, to the distance of forty feet from the tree. The tree, he says, "produces fruit in such abundance, that in some seasons a person may gather several bushels of nuts in a day."

From the bark of the Butternut, an extract is made, which, sweetened with honey, is sometimes employed as a sure and mild purgative. BANCROFT says that the husks of the shells may be employed in dyeing a fawn color, even without mordants. The Shakers at Lebanon dye a rich purple with the bark or nutshells. The bark of the trunk gives a black; that of the root a fawn color, but less powerfully. The wood of the Butternut is as tough, but not so hard, as Black Walnut. It makes beautiful fronts of drawers; and light, tough, and durable wooden bowls and shovels. It will long resist the effects of heat and moisture, and is not attacked by worms. It is valued for posts and rails, and for watering and feeding troughs. An inferior kind of sugar has been made from the sap. MICHAUX does not think it sufficiently valuable, either in the arts or for fuel, to warrant its introduction into Europe, but recommends it only for ornamental purposes.

AMERICAN ELM — *ULMUS AMERICANA*.**THE AMERICAN ELM.**

WE have the pleasure of presenting our readers, this month, a beautiful engraving of a fine specimen of the American Elm, growing on the grounds of W. F. COGGSWELL, Esq., of this city. It is one of the few trees of the original forest which escaped the axe of the pioneer settler, and is a standing monument of the folly of that indiscriminate slaughter which, though hardly to be wondered at, is much to be regretted.

A full grown American Elm is, to us, one of the handsomest of deciduous trees. Its pendulous, graceful branches, surmounting a tall and massive trunk, present a combination of strength and beauty to be found in no other tree. Every tree has its own peculiar attractions. An old English Oak,

"Whose boughs are mossed with age,  
And high top bald with dry antiquity,"

is an object of veneration. In many quiet English villages, there are magnificent specimens of the Oak,

—— "Jove's own tree,  
That holds the woods in awful sovereignty,"

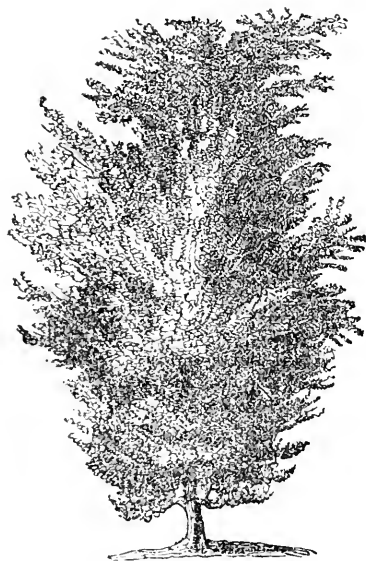
which challenge the admiration of all beholders.

—— "Thy guardian Oaks,  
My country, are thy boast — a giant race,  
And undegenerate still."

But nevertheless, taking it all in all, a good specimen of the American Elm is our favorite tree.

The Elm has a wide range of habitat. HOOKER found it from Saskatchewan to York Factory, on Hudson's Bay. The younger MICHAUX traced it from Nova Scotia to Georgia. It grows on almost any soil, but succeeds best on rich moist land.

The finest specimens we have ever seen are in Berkshire county, Mass. The old Elm in Pittsfield is 13 ft. in circumference four feet from the ground, and towers up 114 ft., without a branch till near the top. The great Elm on Boston Common, when last measured, was 20 ft. in circumference at three feet from the ground. WM. BACON gives an account of a beautiful Elm at Natick. "Its pendent branches are spread equally in all directions, to the distance of 50 ft. from the trunk, thus giving a diameter to its shade of about one hundred feet."



RED CEDAR.

THE Red Cedar (*Juniperus Virginiana*) is too well known to need a minute description. It is indigenous to this country. According to the elder MICHAUX, Cedar Island, in Lake Champlain, nearly opposite Burlington, Vermont, is the northern boundary of the Red Cedar. Eastward, it is found in Maine, at the mouth of the Kennebeck; whence it spreads, without interruption, to Cape Florida, and thence round the Gulf of Mexico, to beyond St. Bernard's Bay, a distance of more than 3,000 miles. As it retires from the shores, it becomes less common and less vigorous. In Virginia and the more Southern States, it is rare at the point where the tide ceases to flow in the rivers; further inland, it is seen only in the form of a shrub, in open, dry, sandy places. In the Western States, it is mostly confined to spots where the limestone rock shows itself naked, or is so thinly covered with earth as to forbid the growth of other trees.

The name is derived from the fact that the heart-wood is of a beautiful red color. The sap-wood is perfectly white. The wood is exceedingly strong and durable, and is most admirably adapted for subterranean water-pipe, when it can be obtained of sufficient size. That of the Southern States is the best; and, in connection with the Live Oak, is used in the upper frames of vessels. It makes the most durable of posts. It is also used for the manufacture of lead pencils, though the Bermuda Juniper is deemed preferable.

The Red Cedar was introduced into England in 1664, and has been very extensively planted. LONDON says: "As an ornamental tree, or large shrub, it is highly valued, either for planting singly on lawns, or in groups along with other trees and shrubs. It is more especially adapted for grouping with other Cupressinae, the pine and fir tribe, and the yew." One of the largest specimens is in Suffolk, 70 years planted, which is 60 feet high, and a trunk 2 feet in diameter. The usual growth is from 10 to 12 feet in ten years.



THE DOUGLAS SPRUCE.

We present above an excellent engraving of the Douglas Spruce (*Abies Douglassii*). It is named after the celebrated traveler DOUGLAS, who introduced it from California in 1826. Those who desire a variety of Coniferous trees, can not omit this one. It is one of the handsomest of the species. We have as yet few large, or even good-sized specimens in this country. DOUGLAS describes them as from 2 to 10 feet in diameter in their native forests, and from 100 to 180 feet in height.

## FRUIT GROWERS' SOCIETY OF WESTERN N. Y.

Continued from the October number, page 317.]

## MANURES FOR FRUIT TREES.

Question No. 4 was—"What are the best manures for the apple, pear, and other fruits; and are the best means of renovating old apple orchards?"

TOWNSEND remembered, when a boy, his father set him to scraping the moss, &c., off the old trees. Got heartily sick of it, and told father he'd let me take the team and draw what manure I wanted to, I'd scrape the trees another year and more effectually. Drew half a load manure to each tree. Next year the bark began to peel, and I brought along with it both the moss and the manure, and sed vigor to the trees; turned the hogs into the orchard, and they managed to root it all over. The tops of the trees the bark has started, and the bodies have the vigorous look of young trees. The fruit used to be half to three-quarters wormy, but now it is fair and free from worms. In course, I managed both to invigorate the trees and to destroy the insects that destroyed my fruit. Think common barn-yard manure best for apple trees. Apply in the fall, and then you get the benefit for the next year's crop. Twenty-five loads to the acre every year in the fall. Best for pear trees also.

LANGWORTHY had found muck useful on clay soil, and to lighten it up.

## CULTURE OF PEAR SEEDLINGS.

Question No. 5.—"What are the best means to insure success in the culture of the pear seedling?" This is not a subject of very general interest, and I give in very brief the results of the full discussion.

Use virgin soil, and let it be first crop on the land. Heavy clay soil is best. Be very sure of seed—must be full, plump, well-ripened seeds. Sow low. Plant very thin; cultivate well; never let weeds get the start of the seedling. If possible, select a piece of ground protected from the winds by a grove. By manuring highly the prospect of success are increased.

## EVENING SESSION.

## CULTURE OF THE BLACK-CAP RASPBERRY.

Question No. 6.—"The Black-cap Raspberry—What is its value as a market fruit, and what is the best method of its cultivation?"

Mr. HOOKER—Am persuaded from my own cultivation of this improved sort, that it is destined to be a very popular and a very useful fruit. There are scarcely any one of the small fruits that is as valuable. The improved is larger and more productive than the wild sort. The fruit is eminently suitable for table use; is good for all cooking purposes. For jellies, tarts, pies, for drying, and for the numerous purposes that a housekeeper buys raspberries for, it is unequalled. More of them can be had in market, and they bring a higher price than other raspberries. Is eminently profitable and worthy

of the attention of all fruit growers. I plant in rows eight feet apart, and three feet apart in the rows. First year cultivate with horse-cultivator. The canes of the second year will grow quite high, and ought to be headed off six feet high. We make a wire trellis, four feet high, about two feet at the north side of the rows. The canes are then pruned so as to be bent from the hill over to the wire, and tied; and this arch will be a complete show—a curved mass of blossoms. These plants differ from other raspberries, and from the black-berry, in that they make no runners whatever.

Mr. FISH had not found that his plants needed trellis; they were strong canes; and if well cut back in the spring, will bear the fruit without support.

Mr. HODGE is satisfied this is one of the best of small fruits. The trellis is the best plan for cultivating them. The Chicago market has long been supplied from Cincinnati and Kentucky. It is brought to Buffalo from Cincinnati, and sells at \$4 per bushel. It bears transportation well.

Col. E. C. FROST has cultivated the Yellow-cap for the last ten years, and finds that it grows stronger and more rank, and is more productive than the Black-cap, and the fruit is better flavored.

## NEW ROCHELLE BLACKBERRY.

Question No. 7.—"The New Rochelle Blackberry—What is its value, and what the method of pruning?"

P. BARRY—The *New Rochelle* is a strong-growing, rampant plant, and it wants a good soil. The richer the better. It is very productive, and is a profitable fruit for market. Its flavor is not so good as the *Dorchester*, but in productiveness it far excels.

## CURRANTS AND THEIR CULTIVATION.

Question No. 8.—"Currants—What are the best varieties, and the best mode of cultivation?"

P. BARRY—In cultivation, the great points are judicious pruning, and a good supply of manure each fall. Keep the head thin, and cut back the shoots which are made each year to one-third. Plants should be in rows six feet apart, and four feet apart in the row. The *White Grape* yields the largest amount of fruit, and is the finest of all currants; in quality, mild, and in flavor superior to the *White Dutch*. In growth, these two are very distinct. The *White Dutch* is an erect growing plant, with light green foliage. The *White Grape* is a spreading plant, with foliage like the *Victoria*.

Mr. HOOKER—The *Cherry* currant is so large, its size and beauty always recommend it in market, but its flavor is not equal to *White Grape*.

Mr. ANSWORTH—The *Cherry* currant brings high price in the city of New York. Is a good bearer, and hangs longer on the bush than any other kind. *White Grape* is the best currant that I know of.

Mr. FISH—Considers *Victoria* very valuable; hangs late on bushes.

## MUCK AS A MANURE.

Question 9.—"Muck and its value as a manure."

B. HODGE, of Erie county.—The article is very generally diffused throughout the country; and if it is, or can be made to be, of value as a manure, the

mode of best using it is of great interest to the farming and fruit-growing community. Think it better for the thorough action of the frost through it. Throw it up in heaps, in the fall, to be frozen, and use it next spring and summer. In many parts of the country, where other manures are becoming scarce and highly valuable, we can not get along without this muck. Where manure is plenty, it is greatly improved by mixing one part muck with two parts manure, and turning over two or three times, at intervals, until the compost is thoroughly mixed. This compost is capital applied as a mulching to fruit trees. It is also a most excellent preparation for strawberry plants. It should be plowed in thoroughly into the soil before the plants are set out. Where the land has thus been prepared with muck, the plants set out have made twice as many runners and the fruit is twice as good as where no manure is used. There is no doubt but that lime in connection with the muck, or mingled in the compost will be of great value.

BENJ. FISH, of Monroe, had a knoll from which all the surface soil had been scraped off, and the using of the subsoil as farming land seemed almost hopeless; but by the application of a muck compost the corn produced upon that otherwise barren subsoil was the best on the farm.

Mr. PENFIELD applied at the rate of 120 loads to the acre, and plowed it under. On light soils had found it particularly good. Highly approved the composting with other enriching agents.

Mr. BRISTOL.—When five years ago we commenced to manage a vineyard, we visited Dr. UNDERHILL's celebrated vineyard at Croton Point, near New York, and he attributed his success in grape-culture to the use of muck in liberal quantities. One-half of the forty acres we were about planting with vines, was a very stiff clay soil. To this soil we applied about one hundred cords of muck, which in piles had been submitted to the action of the elements during one summer and winter. We applied it in the spring, and I never saw any thing equal this muck as a fertilizer.

B. HODGE had been in the habit for ten or fifteen years, of applying large quantities of muck to his land. Drew it out in the winter, and placed in piles not very deep, and after mixing it with a proportion of manure, added some lime and ashes, and submitted it to the action of the elements for the ensuing summer and winter, applying it to the land the spring after. During the summer it was thus exposed, it was turned over three or four times, until thoroughly pulverized and the compost completely mixed. Had great success in planting orchards where this compost was put under and around the trees. It seems to supply invigorating elements without the stimulating effects of manure. Had rather have this compost than any equal quantity of barn-yard manure. Peat beds must not be confounded with muck. Peat is of a yellowish color and is valueless as a manure, while muck is black. We must carefully discriminate between the two.

P. BARRY—Nearly all the muck we have in this country is the residuum of a kind of marsh plant, and of its value there is no more doubt than as to that of stable manure. As a fertilizing agent, however, this muck must be managed properly. It should be mixed with other fertilizers in the

compost heap; freely exposed to the elements, turned over and over and over again. This compost is valuable for any trees—valuable kind of crops—at any rate, I've never seen

Mr. KELLY, of Cincinnati, remarked upon its value in Southern Ohio, and the great use being made of it there. Thinks it is the product of oxide of iron which gives peat its black color. In order to develop its greatest enriching power it requires exposure to the air, as the gentleman have stated. A little lime mixed with the compost seems to awaken energies otherwise latent, and makes it much more active as a fertilizer.

The interesting discussions, of which we have given the above brief abstract, were prolonged to the evening. The Society adjourned to hold the annual meeting in Rochester in June, at the call of the Council.

#### THE MIGNONETTE.

THE Mignonette (*Reseda odorata*), the Frenchman's little darling, was not introduced into our land until the middle of the 17th century. The Mignonette, or Sweet Reseda, was once supposed to be capable of assuaging pain, and of ridding us of many of the ills that flesh is heir to. It was applied with an incantation. This flower has found place in the armorial bearings of an illustrious family of Saxony. I must tell the story:—The Countess of Waltham loved the fair and sprightly Amelia Nordbourg. She was a spoiled child and a coquette. She had an humble companion whose christian name was Charlotte. One evening at a party the ladies were called upon to choose a flower, and the gentlemen were to make verses on their selections. Amelia fixed upon the flaunting Rose, Charlotte the modest Mignonette. In the course of the evening, Amelia coquetted so desperately with a dashing Colonel that the Count could not suppress his vexation. On this he wrote a sonnet for the Rose:

Elle ne vit qu'un jour, et ne plait qu'un moment.  
(She lives but for a day, and pleases but for a moment.)

He then presented the following line on the Mignonette to the gentle Charlotte:

"Ses qualites surpassent ses charmes."

The Count transferred his affections to Charlotte and when he married her, added a branch of Sweet Reseda to the ancient arms of his family, with the motto of

Your qualities surpass your charms.

—Richardson's Flowers and Flower Gardens.

WHEN pears are just arriving at perfection, they may be greatly improved in flavor by being placed in a warm room for a few days before they are eaten. The increased temperature promotes ripening rapidly and perfectly the transposition of the sugar into the saccharine state.

The man who plants a row of beautiful trees in his dwelling, raises monuments to his taste, which will endure fresh and green, yielding shade and shelter when the most costly mansion he can build shall have crumbled to dust and been forgotten.

## NOTES FROM PARIS.

THE hot weather which has lasted so long this year has been very injurious to the newly-formed plants, and in particular the large trees that have been planted on the Boulevards in the winter. It has been necessary to place screens or blinds of gauze bunting on the south side of all the large trees in the Champs Elysées, and keep them constantly syringed and watered night and morning, though they have been treated with the greatest care; it is probable that some of them will have to be removed.

The greater number of the large trees have been treated somewhat differently, owing, of course, to their great size. Their trunks have been thickly covered with moss up to their lower branches; the moss is enveloped with strong bunting tied all round and surmounted with a sort of funnel in zinc, so as to lead the rain down into the moss, and preserve as much humidity as possible to the trunks when there is no rain. The branches are freely watered in the morning by means of a hose attached to the nearest water-pipe; and in Paris there are water-pipes in almost every street at convenient distances.—These pipes are opened every morning, and fresh water continues to run in the gutters for two or three hours, carrying off all nauseous matter to the main sewers.

Fig. 1 is a sketch showing the trunk of a large tree enveloped in moss and bunting, and a funnel at the top.

Several of the large Chestnuts planted round the city in the spring of last year have suffered severely; and though every care has been taken to keep them well watered, it seems scarcely possible for some of them to recover.

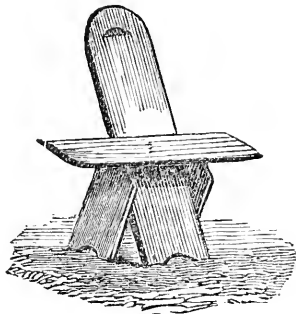


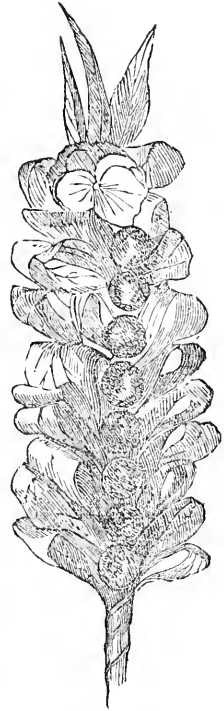
FIG. 2.

When I was in the country some short time ago I noticed a very simple form of garden-seat, of which the enclosed sketch will give a better idea than the longest description (fig. 2). It is made of

common deal [pine], and may be put together with great facility and but little expense.

All who have lived here only for a few days will admit, I think, that the Parisians show a good deal of taste in setting off or arranging their goods in the most attractive manner. It is common to have large plants at each side of the shop-door, and numerous flowers in the window. Even the meat in the butcher's shop may frequently be seen studded with flowers, and the intervening spaces filled with tall Rose trees, Hollyhocks, Fuchsias, and other sorts.

The very firewood in the wood-yards is generally piled up so that the façade may represent a number of ornamental figures; and I have often seen Melons and Vines, covered with fruit, growing along the sides. The poorest vendors in the street have usually some notions of ornament; if it is only a few Cherries that are sold for a son they are always displayed in the form of a small bouquet, worked up with the leaves of the Lily of the Valley, one or two Pansies being



stuck in at the top. Two or three leaves are left open at the summit, but all the others down the sides have their points tied in. I enclose you a drawing of this Cherry bouquet, should you think it worth engraving on a smaller scale.—*London Cottage Gardener.*

## THE HOME OF THE GERANIUM.

From this point (Silvermansdrop, South Africa,) we proceeded on horseback, treading our way through thickets of Mimosa, or among fragments of rock, by the margin of a stream which flowed along the bottom of a deep-wooded valley. This stream we frequently crossed—at times passing for a considerable distance along its course—the water, in some places, scarcely covering the horses' fetlocks, in others reaching to the girths. Here I found a new kind of vegetation. The Speckboom or Elephant's Food, *Portulacaria Afra*, was abundant; but I was most gratified on meeting, as with old friends, with several sorts of Geraniums growing in their native state. The *Horseshoe* and plain-leaved *Scarlet* were quite large shrubs, sometimes six or seven feet high. The dark *Oak-leaved* kind grew vigorously. The *Ivy-leaved* variety spread its creeping branches over the adjacent trees and opened its pink blossoms in great abundance. In other places I noticed several of the finer-leaved Pelargoniums, with small and delicately pencilled flowers.—*Ellis's Madagascar.*



## Ladies' Department.

### MUSIC AND CHEAP PIANOS.

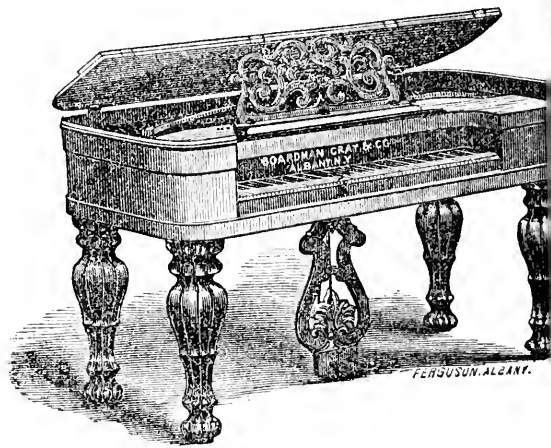
"O music! thy celestial strain  
Is still resistless, still the same;  
And faithful as the mighty sea  
To the pale star that o'er its realm presides.  
The spell-bound fides  
Of human passion rise and fall for thee!"

As a people, we do not have amusements enough. Music, as a source of amusement, is allowed by all to be the most refining and elevating; its influence is felt in every heart. Its study and promulgation should be encouraged by all who have the good of society, and the advancement of sound morality and refinement, at heart. In the study of music the piano-forte has become the indispensable instrument, and an article necessary in every family; and its diffusion and general use is the key to advancement in all those social qualities that adorn the heart and mind, and render our home-circles the gardens and nurseries of those bright and lasting buds and blossoms of refinement and morality that shed its pure rays always about, ever fragrant and refreshing. But pianos heretofore have been an article beyond the reach of the middling and poorer classes of society, and thousands of those whose taste and feeling longed for the privileges of music and the piano, were deprived of the enjoyment on account of the high cost of the latter. We are happy to find that Messrs. BOARDMAN, GRAY, & Co., of Albany, N. Y., are now making excellent pianos for the unprecedented low price of \$125 to \$150. This is a step in the right direction, and we hope our farmers will encourage the movement. Messrs. BOARDMAN, GRAY, & Co. will undoubtedly furnish full particulars to all who wish it. *Godey's Lady's Book*, speaking of these pianos, says:

"In our May number we mentioned that Messrs. BOARDMAN, GRAY, & Co., of Albany, New York, were about making a piano at a low price, especially adapted to the wants of schools, etc. Now it gives us much pleasure to announce that they have the article fully perfected, and it proves all they promised as a musical instrument, and at the price also, "at less than half the amount usually paid."

"The piano is of six octaves, being the upper six octaves of an A scale seven octave, and therefore ANY MUSIC CAN BE PERFORMED ON IT that can be on a seven octave, except the lower base notes, which are not strictly essential. Combining their improved new scales, they obtain all the musical capacity necessary and great power in a small space, the piano being only five and a half feet long and two and a half feet wide. The cases are finished with all large round corners, back and front the same; have their new and latest great improvement, the insulated iron rim and frame, cast in one piece, forming the upper part of the case, making them very durable, as well as ornamental; and they will remain in tune and order for a great length of time, fully equal to their large and elegant instruments, which are renowned for this important principle,

thus combining all the improvements in pianos and simplifying them. They are enabled to make these instruments, finished in handsome cases school purposes, securely boxed for transport at ONE HUNDRED AND TWENTY-FIVE DOLLARS. To make the same musical instrument, finished in wood cases, highly polished, suitable for the cottage, small parlor, or sitting-room, forming an elegant piece of furniture at ONE HUNDRED AND FIFTY DOLLARS. These pianos are all the makers represent them, and are fully warranted so to prove and give satisfaction; and their names as makers sufficient that they will fulfill all promises. They will furnish circulars giving full descriptions and particulars of these as well as their large pianos on application.



BOARDMAN, GRAY, & CO.'S COTTAGE PIANO.

"Messrs. BOARDMAN, GRAY, & Co. have thus met one of the greatest wants of the age, and should have the especial thanks, countenance and support of all who love music, and believe in its influence and refining power, especially with the young. furnishing seminaries, schools, etc., with pianos that are really good and durable, at less than half the usual price paid, it gives them the power to extend the study of music to a larger number and at lower rates; and then more of our children can afford to study music, when they can obtain good and elegant pianos at comparatively so small an outlay. In our cities there are hundreds of families who want a piano that will take but little room, and have the musical requisites, for the sitting-room, nursery, for their children to practice on, instead of their being confined to the piano in the parlor, etc.; and then, again, there are tens of thousands of families throughout our country, in moderate circumstances, who do not feel able to make an outlay of \$800 or \$400, that can now, for \$125, have all the advantages of a superior piano-forte enliven their homes, and elevate and refine the character and minds of their children. Such is the enterprise of these eminent piano-forte manufacturers, always looking to the wants of the people, and always furnishing an article fully depended on; so we advise all who want good piano-fortes to send on their orders to them at Albany, New York."



### New Advertisements this Month.

Webster's Dictionary—G. & C. Merriam, Springfield, Mass.  
 Farmer's Ready Reckoner—G. W. Fisher, Rochester, N. Y.  
 The Farmer and Gardener—A. M. Spangler, Philadelphia, Pa.  
 Amalgam Bells—Hedges, Free, & Co., Cincinnati, O.  
 Farm for Sale—Wm. Semans, Cameron, N. Y.  
 Keep your Cider sweet—H. M. Ely, Syracuse, N. Y.  
 The New York Observer—Sidney E. Morse & Co., New York.  
 Farm for Sale—Thomas F. Smith, Middleport, N. Y.  
 Rochester Premium Cutting-Box—A. Gordon, Rochester, N. Y.  
 Profitable Employment—Robert Sears, New York.  
 10 per Month—S. F. French & Co., New York.  
 Agricultural Publishing House—C. M. Saxton, Barker, & Co., New York.

NOTES ON THE WEATHER AND SEASON, FROM SEPT. 15 TO 16, 1859.—It should be recollected that the first half of September was uncommonly cool, the average heat being more than 7° below the general average, which was 9°.

The last half of September was above the average (56.7°), 19°, and more than the average of the first half by 29°. This fact has not occurred since 1836, when the last half was warmer than the first half, in this section.

The rain in September was 2.86 inches, and the heat of the month 2.5° below the average—60.6°.

Although the frost in the middle of the month did some injury, vegetation has rapidly matured the fall harvest.

The ripeness and size of apples, pears, potatoes, &c., and their quantity, in this county, have rarely been equalled. The autumnal equinox was September 23d, at 3 P. M. The first north-east storm occurred here on the 20th, beginning early before sunrise, much wind and a good rain all day and night to noon 22d, not passing to New England.

The equinoctial storm from the north-east began along the coast on the 23d—early in the morning in Virginia, before noon in New York, and was great in P. M.; and on the 24th was high wind and rain, from north-east, in Virginia, and a gale there from 8 to 10 A. M., prostrating many and many trees; was heavy in New York on the same day, and a gale with rain from 3 to 5 P. M.; and still later at Boston, and less severe. But this storm did not extend west of the Allegany range, as the wind was from the westerly and strong here, on the 25th and 26th. On the 28th, the equinoctial reached this section, with high wind and much rain from the northeast.

The first half of October has given us the mean heat for that period in 22 years—57.1°. With the rapid and sudden changes, people have called the weather rather unpleasant; still, it is the average heat, and the maturing of the productions of the season has been fine, and their abundance and quality great and excellent. Frost occurred on the 6th and 7th; and 9th, 10th, and 12th, hard.

With all the injury from the frosts of June, and of September 13 and 14, in various parts of the country, it is now generally conceded, on all sides, that the productions of the early and later harvest are most abundant. The

immediate demand is for greater facilities of transportation.

In looking back at the number of mornings of dew, we find several in which the dew ran from metallic eaves, and dropped from the leaves of trees, in September and this half of October.

The season, for the summer, of 1816, was much like the past, even to the middle of October, giving us frost in every month from May into October, as in 1859. Then the cultivated plants were greatly injured (even more than this year) wide over the country. When the frost cut off the corn in September of that year, much of it was made to ripen by being cut up by the roots and set up on the ground in small stacks; the same method pursued this year by our farmers.

WEATHER IN ILLINOIS.—Mr. E. BABCOCK, of Marengo, Ill., kindly furnishes us the following extracts from his meteorological observations. He says:

"I will give July and August, because of the extreme drouth and heat of the season.

"Mean temperature of July, 72.61°, being 0.31° lower than the average for the last six years; greatest heat, the 17th, at 97° in the shade; warmest day, 17th, being 87°. Observations taken in the shade, at 7 A. M., and 2 and 9 P. M. The lowest was the evening of the 3d—48°, with slight frost on the morning of the 4th; no damage. Rain during the month, 1.14 in. Turnips sowed this month did not vegetate, and corn almost ceased to grow. Beets, cucumbers, and most of garden vegetables, dried and became useless. The last week of July was harvest; but the weather had cooled from 78.92° of the week before to 63.66°, making fine harvest weather.

"Mean temperature of August, 69.18° (first half, 75.30°), being just the mean of the month for the last six years; greatest heat, 14th, 94° in the shade; lowest, 29th, 46° at 7 A. M.; some frost; no damage. Rain during the month 1.52 inches. Tame grass pastures dried up entirely. Clover and wild grasses continued to grow, and a large amount of hay has been put up in excellent condition.

"September has been more cool, the first half being 59.80°. Rain during the same time, 0.21 inches. An early frost, Sept. 2d, very much injured corn, buckwheat, and vines generally.

"The rains of the season give, for May, 3.89 inches; June, 2.30 inches; July, 1.14 inches; August, 1.52 inches; first half September, 0.21; which is only 8.56 inches for the four and a half months of the growing season. Rain same time last year, (which is our periodical wet season once in seven years,) 31.45 inches. The mean of the last four years equals 20.11 inches during the same time of each year.

"The results of the late and early frosts, together with the severe drouth, has very much reduced the annual product, and a much less quantity than usual can be spared for market."

FRUIT FROM INDIANA.—We are indebted to Mr. MOSKES FOWLER, of Lafayette, Ind., for some noble specimens of apples, grown in that vicinity. Among them we may mention the *Newton Pippin*, of good size and quality, and much finer than any specimens of this variety grown here, where it does not succeed well. We should judge, from this specimen, that this excellent variety succeeds as well in Indiana as in the eastern counties of this State. The *Fall Pippin*, *Ortley Pippin*, *Westfield Seek-no-Further*, *Pennock*, *Spitzenburgh*, *Swaar*, *Yellow Belleflower*, *Prior's Red*, and *Ramble's Janet*, are all fine specimens. Mr. FOWLER also sent us a *Duchesse d'Angouleme* pear, which measured 13 inches round, and weighed 19 ounces. It was also of excellent quality.

The fruit crop in California, this year, is valued at between six and seven millions of dollars.

### Premiums for Short Essays.

We offer a prize of a dollar book for the best essay on each of the following subjects. The essays must not occupy more than a page of the *Farmer* each (say six pages of foolscap). They must be sent in by the 25th of December. The essays will be submitted to competent judges, and those deemed the best will be published in the February number.

Will not our readers write out their views freely on these subjects? Our previous offers of prizes for essays on given subjects, have elicited much valuable information. The prize is small; but our friends do not write for pay, but in hopes of imparting useful information. The subjects have been suggested by various correspondents, and we are sure the essays will be read with much interest. We do not expect an elaborate and finished style of composition—we want *facts*, practical ideas, and the suggestions of observing, thinking men. We have thousands of readers who can furnish these. Let us hear from them. Let no one think he can not write for the public—write as though you were writing a letter to a friend who had asked for information on one of these subjects, and you will write well.

The following are the subjects sent in:

AGRICULTURAL, &c.—How can we best increase the early flowering and ripening of winter wheat? Should the seed be obtained from a more southern or a more northern latitude?

How to farm profitably on 50 acres of land—showing the proper rotation of crops, manures, implements, buildings, and stock, confined principally to common crops—not gardening nor fruit raising?

On raising and marketing the basket willow, stating the best kinds for general cultivation, the soil most suitable, and the profits one may expect to realize.

What particular breed of cattle have generally proved most reliable and profitable for dairy purposes? Or are grades or natives best adapted for this purpose?

Is it best to sow timothy, or herds-grass, by itself, or with other crops? And what is the best method of cultivation?

On the best method of cultivating and feeding out vetches or tares, and can they be profitably grown in this climate?

On the habits and locale of the chinch-bug, and the best means of destroying it, or preventing its ravages.

Would not a wagon with a tire four or five inches wide, be better for farm purposes than the one now in use?

How much timber land should be reserved on a 50, 75, or 100 acre farm for farm use?

On the necessity of a regular and abundant supply of water for stock at all seasons.

What are the best substitutes for hay, in feeding horses, cattle, and sheep, in winter?

Would it be more profitable for farmers to raise rye, instead of oats, for feeding?

Would it be profitable to raise sweet apples for feeding to cattle or swine?

On the recreations and amusements for farmers and their families.

What is the cause of, and best remedy for, white specks in butter?

Is it best to hill corn, or not?

The best method of hunting wild bees, with the used, &c.

Best mode of raising onions, and the best kind market.

Can the keeping of bees on a large scale be made profitable?

Is it better to feed cattle *two* or *three* times a day in winter?

Best mode of raising carrots, and their value for stock.

On the best breed or breeds of hogs for general purposes.

What is the cause of, and best remedy for, hog cholera?

On the value of marsh hay—Will it pay to secure it, on large or small farms—Which are the most profitable?

Can sheep be profitably fattened in winter, and how?

On the best method of raising and fattening hogs.

On buildings suitable to a large and small farm.

Is it best to tie up cattle when fattening?

How deep should we plow?

HORTICULTURAL.—What are the best six varieties of pears most valuable for the market, or general cultivation; also six varieties of apples for like purpose; naming varieties of pear and apple in the order in which they should stand for their respective merit; and which varieties of the pear enumerated are best adapted for the purpose, and which for the quince root?

If apple trees are set *around* a farm, instead of in a compact body, would they not be more productive on account of air, light, heat, &c.? Would the plan of setting them *around* the farm, everything being equal, be advisable?

What exposure is best for the pear; also for the apple? Best time for setting trees—fall or spring? What would be the cost be for setting each tree?

On the best treatment of dwarf pear trees, which were set out a few years ago, and have been neglected.

On the best trees for a country cemetery—planting, management, &c.

What is the cause of, and best remedy for, the pear-blight?

On the best method of renovating old apple orchards—Trenching—its advantages, depth, best method, cost, &c.

On the cultivation of peaches.

PREMIUMS FOR THE HALF VOLUME.—In another column will be found the names of the successful competitors of the largest clubs for the half volume. They are larger than we expected, but, nevertheless, we think many of our friends will find themselves entitled to a premium who had no idea of obtaining one. The fact is, our friends are so disinterested in their efforts to increase the circulation of the *Farmer* that it is difficult to get them to compete for a premium. On the other hand, we desire to compensate them as far as possible for their labors on our behalf, and shall continue to offer and *pay* premiums as long as we have friends who are willing to act as agents in getting subscribers.

OUR PREMIUMS FOR NEXT YEAR.—On the last page of this number will be found a List of Cash Premiums; the greatest number of subscribers sent in by the fifteenth of January. There are twenty-one premiums, amounting to \$235. Read our offer on the last page, and then see what you can do for us. Now is the time to get new subscribers for next year. So few compete for these premiums that any one can take the highest prize by a little effort.

**YEAR PREMIUMS.**—Our half-year premiums for latest number of subscribers sent in on or before tenth day of October, have been taken as follows:

es Ilicks, Mead Corners, Pa.,	\$20 for 118 subs.
hepard, Kirk's X Roads, Ind.,	19 " 91 "
is Barnes, New Buffalo, Mich.,	18 " 78 "
urvin, Carbondale, Pa.,	17 " 64 "
. Seelye, Hudson, Mich.,	16 " 47 "
ill, Prairie Depot, Ohio,	15 " 45 "
. Hamilton, South Butler, N. Y.,	14 " 44 "
. Irvine, Greenville, S. C.,	13 " 43 "
. Gregory, Altay, N. Y.,	12 " 42 "
. Owens, Beaver Dam, Ohio,	11 " 41 "
eckelcan, Jr., Ancaster, C. W.,	10 " 36 "
. Humphreville, Mt. Pleasant, O.,	9 " 32 "
. Livingston, Davidsville, Pa.,	8 " 30 "
lakeslie, Galien, Mich.,	7 " 29 "
. Transon, Wellwood, Tenn.,	6 " 28 "
avermale, Canton, Ill.,	5 " 27 "
artwright, Johnstown, Pa.,	4 " 25 "
. M. S. Beatty, Aurora, N. Y.,	3 " 24 "
ilks, Hurffville, N. J.	2 " 23 "
. Hill, Berlin Heights, Ohio,	1 " 22 "

riends can draw on us at sight for the amounts, or send by mail, or in any other way they may e.

**LARGE A CLUB WILL TAKE A PREMIUM?**—We answer this question. We can only judge from

Our January premiums in 1858 were taken as

A club of 29 took a premium of \$5; 31, \$6; 34, \$8; 36, \$9; 38, \$10; 40, \$11; 43, \$12; 56, \$13; 91, \$15; 107, \$20.

January premiums for 1859 were taken by clubs of 31, 32, 33, 34, 36, 37, 38, 39, 40, 49, 55, 60, 70, 97, 107, 116.

Club of 23 took one of the April premiums of this year.

**RURAL ANNUAL AND HORTICULTURAL DIRECTORY** 1860.—We believe this number of the *Rural Annual* found the best of the series. We have spared no expense in preparing the matter and illustrating the illustrations, we think, are superior to anything kind ever published in this country. The work is early ready, and will be sent to any address, pre- mail, on the receipt of 25 cents in postage stamps. s JOSEPH HARRIS, Rochester, N. Y.

**WORD TO YOUNG MEN.**—Read our List of Premiums last page, and then ask your neighbors to subscribe *Genesee Farmer* for 1860, and see if you can not one of the highest prizes. Our offer to send the ber and December numbers of this year to all who be before the 1st of December, makes it an easy get subscribers *now*. We will gladly send you ills, specimen copies, &c., if you wish them.

**TO DO GOOD AND GET PAID FOR IT.**—Tell your neigh- ho do not take the *Genesee Farmer* that by subscrib- w they can get the November and December num- ber this year for nothing. Form a club and take one largest Cash Premiums. In this way you will do to us and your neighbors—and get paid for your

THE FRIENDS OF THE GENESEE FARMER should not over- look our offer to send the November and December num- bers of this year, gratis, to all who subscribe before the 1st of December (see last page). This is a rare opportu- nity to get new subscribers. Will not our readers, espe- cially in places where we have few subscribers, tell their neighbors of this offer. In clubs of eight, we will send the volume for 1860 and the two numbers of this year (November and December) for 40 cents each. All such subscribers will be counted in for the January premiums.

**A HANDSOME GRAPE VINE.**—In the cold graperly of AARON ERICKSON, Esq., of this city, there is a *Wilson's Black Hamburg* vine, bearing thirty-two large clusters of grapes, sixteen on each side, and as beautifully and regu- larly arranged as if placed there by the hand of a skillful artist—as indeed they must have been. The vine does not occupy a space more than three feet wide and twenty feet high. It is only four years old. The crop from this small vine would weigh from 25 to 30 lbs.

#### Inquiries and Answers.

**BUCKTHORN HEDGE.**—I have a small lot of Buckthorn plants for a hedge, which I purpose setting out about the middle of November next. I wish to obtain some infor- mation, if practicable, before that time, through your paper, in regard to pruning, but more particularly, in regard to pruning them when I set them out. The plants have had one year's growth before the present, and have attained an average height of 2½ to 3 feet, and are still growing rapidly.—INQUIRER, *Elliot, Me., Sept., 1859.*

Will some of our experienced correspondents answer the above? We have seen some plants set out without any pruning, but it is usual to cut them down to within about six inches of the ground.

**KOHL RABI.**—(A Subscriber, Jackson C. H., Ohio.) This plant is much-used for food in the north of Europe, the bulbs being boiled whole and used in the same way as turnips. It is an excellent food for all kinds of farm stock, and may be harvested at the same time and in the same manner as turnips. The leaves are also valuable, being very similar to those of cabbage, and make good greens in the early stages of their growth. It will stand drouth well, and can be transplanted like cabbage.

**ROOT-CUTTER.**—(B. S.) You can find root-cutters at the agricultural warehouses; but, for the small number of roots you feed, you do not need one. It will not pay. Get a sharp spade, and you can cut them up on a wooden floor or frozen ground easily and expeditiously.

**SMALL GREEN HOUSE, &c.**—Will you or some one of your correspondents give, through the columns of the *Genesee Farmer*, the best plan for a green house for between 38° and 39° N. latitude, and the dimensions to be not more than ten or twelve feet in width, and sixteen or seventeen feet in length, and to be built at the end of a brick build- ing, so that the green house will front south? I also desire to know what kind of grape, and the manner of planting, best suited for an arbor.—J. R. G., *Virginia.*

**CRANBERRY CULTURE.**—What is the best method of cul- tivating cranberries? What kind of marsh is most suita- ble for them—should it be very wet, or not? How should the ground be prepared for the plants? At what time and how should they be set out? Are wild plants, taken from cranberry marshes, as good for this purpose as those that have been raised by cultivation? Also, I would like to know which will pay best, to grow cranberries or tim- otby grass on such land.—S. R. S., *Oxford, Mich.*

### Notices of Books, Pamphlets, &c.

**CHAMBERS' ENCYCLOPEDIA:** A Dictionary of Universal Knowledge for the People, on the basis of the latest edition of the German Conversations Lexicon. Illustrated by Wood Engravings and Maps. Part 6. New York: D. APPLETON & Co. Price 15 cents per number.

For sale by ADAMS & DARNSEY, of this city.

**THE WHEAT PLANT:** Its Origin, Culture, Growth, Development, &c., &c. Together with a few remarks on Indian Corn; its culture, &c. By JOHN H. KLIPFART. One hundred illustrations. Cincinnati: MOORE & Co. Price \$1.50.

For sale by E. DARROW & Bro., of this city.

**THE SCIENCE OF EDUCATION, AND ART OF TEACHING.** In two parts. By JOHN OGDEN, A. M. Cincinnati: MOORE, WILSTACH, KEYS, & Co. Price \$1.25.

For sale by E. DARROW & Bro., of this city.

## REVIEW OF THE MARKETS.

GENESEE FARMER OFFICE,  
ROCHESTER, N. Y., Oct. 21, 1859. }

The fluctuations in Flour and Wheat, which still continue at intervals, do not embrace so wide a range as they did during the month previous to our last report. Subsequent to, and within a few days of, that date a large advance took place, since which the changes though frequent have been limited in extent. The receipts are liberal and the demand fair, with tolerably firm markets. The highest grade of extra flour is in good request and the price is well sustained. The consumption of the lower grades manufactured from spring wheat has increased of late, on account of the goodness of the quality. There is a good demand for the British Provinces, but prices are too high to encourage a trade for export to Europe. The movement of breadstuffs at the West is free; but scarcely equal to what might have been expected from the estimated yield of the growth of the current year.

There is little doubt that the yield of wheat in Great Britain, the present year, is an average one as to quantity; but somewhat inferior in quality to the production of last year. Although the supplies of foreign growth, in store, are not large, the quantity of old wheat in stack, at the close of August, was estimated at twenty-four million bushels. There is, therefore, no immediate prospect of an advance in the English markets, sufficiently large to encourage shipments from this country, unless prices should recede here. The yield of wheat in France is estimated at a much lower figure for the present, than for the past year. In Russia and Germany the crops are good, and turning out well. In Spain, Portugal, Turkey, and the Italian States, the yield is not equal to previous expectations; an impression exists, however, that the supply will be equal to the demand. The crops of spring corn throughout Europe are generally good, and the yield for the most part is favorably spoken of.

The quantity of wheat, and flour reduced to wheat, sent from France to Great Britain during the first eight months of the current year, was upwards of fourteen million bushels; while that received from the United States for the same period of time, scarcely amounted to one hundred and twenty thousand bushels. The aggregate amount of foreign wheat, and flour reduced to wheat, received during the eight months mentioned, at the different ports of the United Kingdom from other countries in Europe, including about three million bushels from Egypt, was little less than thirty million bushels.

From the above it is evident, that while England is a large importer of breadstuffs, she is not dependent on any particular country for her supply; and that it is not probable that her markets will advance beyond the general average of prices, more than sufficient to cover transportation charges, and other incidental expenses, including a small margin for profit. If this be conceded, it follows, that if in any country prices are above a general average, a decline must take place before an export demand can exist.

With regard to the future course of prices, the expression of

individual opinion would be almost folly. The whole man involved in uncertainty. Opinions and interests are various conflicting; and influences of an equivocal character are brought into action, producing results which no prudent foreseer.

There is a moderately free movement of summer crops West with an advance in prices and a firm market.

Provisions are generally higher with a fair demand; the excess of the market, however, restricts transactions to some extent. Good Beef Cattle are still very scarce; a large proportion those offered being of inferior quality. In New York prices slightly advanced, in consequence of a diminished stock; in some markets quotations are lower. First class cattle readily at full rates.

There is not much activity in the Wool market; the quantity offered is not large, and holders are very firm.

### ROCHESTER MARKET.—Oct. 20.

WHEAT—Superfine from red wheat, \$4.50@4.75; extra white wheat, \$5.00@5.15.

GRAIN—White wheat, \$1.15@1.20; red do., 90c@1.05, 80c@85c. Rye, 72c. Barley, 62c@70c. Oats, 37c@38c. 1 w. cat, 40c. White Beans, 70c@75c.

SEEDS—Red Clover, \$5.00@5.50. Timothy, \$2.50@3.25. Flax, \$1.25@1.40.

PROVISIONS—Mess Pork, \$17.00@18.00. Hams, 11c for smoked. Shoulders, 8c@9c. Lard, 12c@13c. Butter, 20c; firkin, 16c. Cheese, 8@10c. Eggs, 15c. Chickens, 8c. Turkeys, 10c. Potatoes, 31c@40c. Apples, 25c@37½c. \$4.50@5.5. Dressed hogs, \$7 per 100 lbs.

CATTLE MARKET—The market is lower. Beef Cattle weight, \$3@4. Sheep, \$2@4 per head. Lambs, \$1.25@1.50 each. Calves, 4½c@5c per lb. dressed.

HIDES—Slaughter, 6c per lb. Calf skins, 10c per lb. 75c@81 each.

HAY—\$14@20 per ton.

WOOL—40c@50c per lb.

### NEW YORK MARKET.—Oct. 20.

WHEAT AND MEAL—The market for Flour is less as Superfine State, \$4.75@4.75; extra do., \$4.50@4.90. Superfine, \$4.75@4.80; extra do., \$4.90@5.25; Ohio round, \$5.40@5.55; extra Ohio, \$5.50@5.65; common to extra Louis, \$5.50@5.75; extra Genessee, \$5.50@5.75; common extra Canadian, \$5.50@5.75. Southern Flour is firm, with led transactions, at prices ranging from \$5.50 to \$5.75 for super and extra. Rye flour, \$3.50@4.40. Corn meal—Jersey, \$4. \$4.10; Brandywine, \$4.25@4.40. Buckwheat Flour, \$1.57 per 100 lbs.

GRAIN.—There is a fair demand for Wheat with a moderate supply; white \$1.35@1.45; Milwaukee and Canada club \$1. \$1.05; Southern red \$1.16; Chicago spring \$1.05. Corn firm a fair demand; Western mixed \$1.03; round yellow \$1; Southern \$1@1.05. Rye 88c@90c. Barley 75c@80c. Oats—1 and Western 42c@44c; Southern 36c@40c; Jersey and Pennsylvania 38c@40c. Canada Peas 75c@80c. White Beans 80c@85c.

SEEDS—Demand for Clover limited at 8c for old and 9c new. Timothy, \$2.00@2.25 for mowed; \$2.50@2.62½ reaped, per bushel. Red top, \$2.50@2.75 per five bushel bag.

PROVISIONS—Pork firm at \$15.25@15.40 for mess; \$11 for clear Western; \$10.80@10.87½ for prime. Beef quiet country mess, \$5@5.75 country prime \$4@4.50; Western packed \$6@6.50; new do., \$6@6.11; extra mess, \$11@12. Hams, \$16@16.50. Cut meats are firm; Hams, 9½c@9. Shoulders, 8c. Lard, 11c@11½c. Butter—Orange county, 22c; State, 18c@22c; Ohio, 12c@15c. Cheese firm at 8c@10c for common to extra quality; Goshen, 11@11½c. Potatoes—Mercers and Peachblows, \$1.62½@1.75; Buckeyes, \$1.37@1.50; Junes, \$1.12½@1.25 per bin.

CATTLE MARKET.—The stock of Beef Cattle is not so large and the market is a little firmer; first quality, 9½c@10c; medium 8c; ordinary, 6½c@7c; extra good, which are very scarce, 10½c. Veal Cattle of good quality sell for 7c per lb. live weight. Sheep and Lambs \$3@3.50 per head. Hogs—corn fed, 5½c@6c; distillery, 5½c@6c, per lb. gross.

WOOL—Market firm with a moderate demand. Sales of 8 and Western fleece at 40c@62½c for common to full blooded rino and Saxony.

### PHILADELPHIA MARKET.—Oct 19.

WHEAT AND MEAL—Demand for Flour confined to wants of the trade. Superfine, \$5@5.25; extra, \$5.37½@5.60 extra family brands, \$5.75@6.75. Rye Flour scarce at \$1.2 Corn Meal scarce at \$3.75, with light demand.

GRAIN—Wheat dull; prime Southern red, \$1.24@1.31 white, \$1.39@1.55. Rye steady at 8c for Delaware, and 90c Pennsylvania. Corn dull at 91c@93c in store and afloat. Barley, 65c. Oats, 44c for Delaware; and 5c for Pennsylvania on p. l.

SEEDS—Clover in fair demand at \$5.50@5.70. Flax, \$1.25@1.40.

CATTLE MARKET—Beef Cattle, \$3@4 for inferior, and







**THE NEW YORK OBSERVER,**

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**PROPOSALS FOR SOLICITING SUBSCRIBERS.**

To any one who will obtain new subscribers for us, we will pay the following liberal commissions:—For five new subscribers *paying in advance*, fifty cents each; for more than five and less than ten, seventy-five cents each; for ten or more, one dollar each. We will send a copy of our Bible Atlas, with colored maps, on paper of large size and best quality, to each new subscriber, on the receipt of his name and payment for one year.

If you can not give personal attention to this work, will you show this advertisement to some clergyman or layman who will take an interest in it, to whom we will give the commissions mentioned above.

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Your early attention is solicited to this subject, and we shall be happy to hear from you, immediately, as we desire to offer the paper at once to every family in the United States.

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**RUSSIA OR BASS MATS**—Selected expressly for budding and tying. GUNNY BAGS, TWINES, HAY ROPE, &c., suitable for Nurserymen and Farmers, for sale in lots to suit, by D. W. MANWARING, Importer, 248 Front Street, New York.

Sept., 1859.—1y\*

**VIRGINIA FARM LANDS.**—There are desirable FARMS for sale at \$10 to \$20 per acre, within a few hours' ride from Washington City. For any desired information, address L. H. KEYNOLDS, Maple Valley, Prince William Co., Va.

Sept.—3t

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THE  
**GENESEE FARMER**  
FOR 1860.

BELOW will be found our Premium List for 1860. Our Specific Premiums are the same as last year, except that we do not offer specific premiums for larger lists than twenty-four, for the reason that any larger list than this will probably take a Cash Premium. The January Cash Premiums are larger and more numerous than ever before. Few persons compete for them, and very small lists will secure them. A few hours spent in canvassing is all that is necessary.

If there is no agent for the *Farmer* in your town, will not you, kind reader, act as agent for us in your neighborhood? The *Genesee Farmer* is so cheap that everyone interested in the cultivation of the soil will subscribe, if asked; and few do so unless they are asked. Show them a copy of the paper, and tell them its price, and they can not help but take it. Now is the time to attend to this matter. To all who subscribe previous to the first of December, we will send the *Farmer* for the remaining two months of this year (November and December) and the entire volume for 1860 for fifty cents; and to all who intend forming a club for next year, we will send the fourteen months, as above, for forty cents each. These subscribers will be counted in the club in competition for the Premiums. This is an excellent opportunity to induce those who do not take the *Farmer* this year to subscribe. Will not all our friends—will not you, sir,—make an effort to increase our list of subscribers for 1860? We will gladly send you show-bills, specimens, &c., if you will act as agent.

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1. To every person who sends us EIGHT Subscribers, (at our lowest terms of *thirty-seven and a half cents each*), we will send, postage paid, a copy of our beautiful twenty-five cent book, the *Rural Annual* for 1860.

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3. To every person sending us TWENTY-FOUR subscribers, as above, we will send two extra copies of the *Farmer*, or two copies of the *Rural Annual* and one extra copy of the *Farmer*.

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Thousands of our readers delay sending in their subscriptions till several of the numbers of the new volume are out. In order to correct this practice as much as possible, we offer a liberal and very numerous list of Cash Premiums for the greatest number of subscribers sent in by the *fifteenth day of January*. The names of the successful competitors, together with the number of subscribers, will be announced in the February number, and the Premiums immediately paid.

1. TWENTY-FIVE DOLLARS, in Cash, to the person who shall send us the largest number of subscribers (at the lowest club price of 87½ cents each,) before the 15th day of January, 1860. (The order with the money must be received, not mailed, on or before the 15th of January.)

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3. NINETEEN DOLLARS to the person who shall send us the third highest number, as above.

4. EIGHTEEN DOLLARS to the person who shall send us the fourth highest list, as above.

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Our Agents, and Competitors for the above Premiums, will remember that our terms are always IN ADVANCE.

Subscription Money may be sent by mail at my risk, and you need not "register" the letters.

Address **JOSEPH HARRIS,**

PUBLISHER AND PROPRIETOR,

October 1, 1859. ROCHESTER, N. Y.

# THE Genesee Farmer.

THE PRACTICAL AND SCIENTIFIC FARMER'S OWN PAPER.

VOL. XX, SECOND SERIES.

ROCHESTER, N. Y., DECEMBER, 1859.

No. 12.

## FEEDING FARM STOCK.

ALL KNOW, in cleaning land, what a small amount of ash is left as the residuum of the mighty forest. Carbon, or charcoal, exists in the vegetable kingdom in much larger proportion than any other element. Nitrogen is found only in very small quantity, yet its presence is absolutely necessary. No vitality or organization is found without it. There are many substances in vegetables that do not contain nitrogen, but they are not integral portions of the plant. They are merely vegetable deposits, corresponding with the deposits of fat in the animal organization. These deposits, such as starch, sugar, gum, etc., are destitute of nitrogen, and are composed of carbon and the elements of water. They are therefore called carbonaceous compounds. Those substances which contain nitrogen—and every vital part of a plant and animal does contain it—are called nitrogenous substances. They are composed of all the four organic elements—oxygen, hydrogen, nitrogen, and carbon—united in definite proportions in all plants and animals.

If we take a piece of carbon, or charcoal, and burn it in a stove, it gives out an amount of heat proportionate to the amount burned. The carbon of food, when taken into the animal system, is burnt in precisely the same way as that in the stove, and gives out exactly the same amount of heat. It is well known, that when any heated body is surrounded with colder substances, the heat will fly off from the heated body, till all become of an equal temperature. And it also well known, that more fuel would be needed to keep a stove at a given heat, when exposed to a cold temperature, than when in a warm one. An animal is affected in this respect in precisely the same manner as a stove. The temperature of the animal body is the same at the North pole as at the Equator, when at a blood heat temperature, as when in an atmosphere 40° below zero. It must be, therefore, that this body is heated from within; and that the colder the air, the more heat must there be pro-

duced, and consequently the more carbon must there be burned in the lungs to generate it. Hence it is that in cold weather we eat much more food, and that of a more carbonaceous character, than in hot weather. Warmth, to a certain point, is equivalent to an increase of carbon in the food.

The nitrogenous substances of vegetables are precisely the same in composition as the muscles or flesh of animals; and it is supposed that the nitrogenous substances of vegetables are converted into flesh without decomposition. Hence the assertion by many able chemists, that the nutritive quality of a food is in direct proportion to the amount of these nitrogenous or flesh-forming substances. BOUSSINGAULT, the most reliable agricultural chemist in the world, has given tables of equivalents, founded on this principle. According to them, peas contain three times as much nitrogen as maize, and is consequently three times as nutritious. Bran, too, is much more nutritious than the finest wheat flour; while an immature corn stalk would be more nutritious than one perfectly elaborated. The experiments of LAWES and GILBERT throw much doubt on the correctness of this theory. One thing at least is demonstrated—that the amount of nitrogen a food contains in no way regulates the amount consumed by the animal. Thus, a hog will eat as much peas as corn; while in the one case he will eat three times as much nitrogen as in the other.

We arrive at the conclusion, that the amount of food an animal will consume, other things being equal depends upon the amount of *available carbonaceous* substances it contains, irrespective of the nitrogenous. This was invariably found to be the case throughout a very extensive series of experiments. To give more for 100 lbs. of bran than for 100 lbs. of flour, because it contains more nitrogen, would not be wise. Neither would it be economical to give three times as much for a bushel of peas as for a bushel of corn, because it contains three times as much nitrogen; for though

the animal will increase somewhat more when fed on peas than on corn, yet he will eat till he has obtained the necessary amount of carbonaceous matter, and of which corn contains much more than peas. The fact is, that nitrogenous substances are in excess of the *available carbonaceous*. Otherwise, why is it that we strip the nitrogenous bran from the starch of wheat? Why is it that we churn so much milk for its carbonaceous compound—butter; while its nitrogenous matter, casein or curd, is given to the hogs in the buttermilk? Why is it that we eat so much fat meat and pork? How is it that sugar has become a *necessary* to nine-tenths of the world; and that rice and tapioca are found in every household? All these substances contain a large amount of available carbon, and little or no nitrogen. For feeding purposes, a food is valuable in proportion to the amount of available carbon it contains; yet the more nitrogen it has united with this carbon, the greater will be its fattening quality.

A natural conclusion, from these facts, would be to grow those plants, as food for animals, which contain the most available carbon; or, in other words, the most starch, sugar, oil, etc.

But agriculture is a complex art. We must be careful how we jump at conclusions. In Mr. LAWES' wheat experiments, systematically continued on the same soil for fifteen successive years, the most important fact demonstrated is this: *The wheat plant, during its growth, destroys ammonia.* That is to say, that much more ammonia is required to produce a crop of wheat than the entire crop of grain and straw contains when fully matured. It was found, in several hundred experiments, that an application of ammonia increased the crop up to a certain point, dependent on climatic influences, in proportion to the amount supplied; but that about five times as much ammonia is required to produce a given increase of wheat than it contains when grown.

Mr. LAWES' experiments on turnips, peas, beans, clover, etc., show that these crops do not destroy ammonia during their growth; and that if sufficient available inorganic matter be present, they can obtain sufficient ammonia for an average crop, from the atmosphere. Whether corn, oats, barley, timothy, and other cereals, destroy ammonia, is not yet proved, but it is highly probable. Let us admit that these cereals, like wheat, destroy ammonia during their growth, and that peas, beans, clover, lentils, etc., do not, and see how it affects the subject of rotation.

On a farm, then, where wheat, maize, barley,

and oats, are grown, as well as timothy and other grasses, for feeding purposes, it must be evident that there is an immense destruction of ammonia; and that if we are to obtain large crops, large quantities of ammonia must in one way or other be placed in the *soil*. The cheapest way, under most circumstances, of increasing the ammonia on a farm is, by growing those crops which do not destroy it during their growth, but, on the other hand, retain that which is brought to them in rain from the atmosphere.

At least one half the dry food given to an animal is consumed in the production of animal heat, and escapes as carbonic acid and water in breath and perspiration. The nitrogen of the food, however, is not given off in a gaseous state, but, except a small portion, retained in the increase of animal, is all thrown out of the system in liquid and solid excrements, the former containing often six times as much as the latter.

A crop of clover, in root and branch, often contains 80 lbs. of nitrogen, the greatest part of which is probably derived from the atmosphere; and this clover, plowed in or eaten on the farm by animals, would furnish 80 lbs. of ammonia for a wheat, corn, or timothy crop, which would be increased accordingly. This 80 lbs. of ammonia can not be purchased in an artificial form for less than \$12. A good average crop of peas contains about as much nitrogen as the clover, and, like it, obtains most of it from the atmosphere. The same can be said of turnips, mangels, beets, carrots, beans, tares, etc.

It will be seen, then, that while maize in one sense is much more nutritious than peas—containing more available carbon,—yet this nutritious quality is produced at such an expense of the ammonia of the soil, that it can not be grown for feeding purposes, unless a high price is obtained for the meat. Peas, though in one sense less nutritious, have been produced at so little expense to the soil, as compared with corn, and besides contain so large a quantity of nitrogen, that their growth and consumption on the farm can not fail to be comparatively profitable. The comparison between timothy grass and clover is equally, and for the same reasons, unfavorable to the growth of timothy for the purpose of feeding to animals on the farm. Not only does it contain less nitrogen, but it has consumed much ammonia during its growth. If this is correct in theory, it can not be far wrong to say that the average yield of wheat, maize, barley, oats, and timothy, on any farm, will be in direct proportion to the quantity of clover, peas, turnips, etc., raised and consumed on the farm.

**WILL PLOWING IN CLOVER EXHAUST THE SOIL?**

In answer to this question, we have space this month to mention only one important fact, brought to light by the experiments of LAWES and GILBERT:

It was found, that to grow a crop of turnips, clover, etc., more available inorganic matter is needed in the soil than is required for a crop of wheat. Thus, on the same kind of soil on which a crop of wheat of fifteen bushels per acre was annually obtained for ten successive years, without any manure, turnips, the second and third years, did not grow larger than radishes; yet, supplied with superphosphate of lime, this soil annually produced good crops of turnips. We have, then, the remarkable fact that, while the ash of wheat contains five times as much phosphoric acid as the ash of turnips, the turnip requires for its growth the presence in the soil of more available phosphoric acid than is required by the wheat plant.

From this it follows that a soil will be sooner deficient of inorganic matter for a crop of turnips, clover, or peas, than it will for wheat; and that these crops contain more inorganic matter than is required by the increase of wheat produced by their ammonia. It follows that so long as we can grow clover and peas, we need not fear any deficiency of the ash constituents of wheat.

**FATTENING STOCK ON POTATOES.**

It has been found, by experiment, that potatoes will fatten hogs, or other stock, much faster, and with less waste, if they are deprived of the non-nitrogenous elements contained in them. LIEBIG says: "German agriculture has been led by experience to a very simple method of converting potatoes into a fattening fodder, similar to grain in its composition. This method is the foundation stone of the profitable agriculture of Germany; and it consists in removing, entirely or to a great extent, and by a purely chemical process, the non-nitrogenous part of the potatoes, and using the residue, which contains all these plastic constituents, to feed stock. The potatoes are reduced to a thin paste, and placed in contact with malt, by the action of which the starch is converted into sugar. The mash, as it is called, is now mixed with beer yeast, which causes it to ferment, and the whole of the sugar is thus destroyed. By distilling the fermented mash, the starch of the potatoes is obtained in the form of spirits, and the residue or dregs forms the most valuable food for fattening stock."

MAC.

REMARKS.—We think our correspondent fails to get the true idea of the quotation from LIEBIG. It is absurd to suppose that potatoes are more fattening when deprived of their starch. The refuse of potato distilleries may be more nutritious, weight for weight, than the potatoes themselves. But of

this we have some doubt. Certain it is, that if we take a bushel of potatoes and submit them to a process whereby all the starch is removed, the remaining nitrogenous matter will not afford as much nourishment as the original bushel of potatoes would have done. A given weight of the refuse may be as nutritious as potatoes, but to suppose that the starch which has been removed is not nutritious also, is ridiculous. EDs.

**COTSWOLD SHEEP.**

EDS. GENESEE FARMER:—On my return from Chicago, I see, in your October number, page 308, your note seems to misunderstand my position. If you will have the goodness to look over my communication, you will find I did not take any but usual sale prices for my calculation. I put the 31 at \$10 each against "Z. B. S.'s 31 at \$2.80 = \$86.80"—his own claim. This was the rate of my sales each year—only yearlings, and all I had. Was not that fair? I did not calculate my higher sales at all, only my *lowest*, and that only *part*-bred.

I did leave out of the question "the fact that such large sheep as the Cotswolds will consume more food than the smaller breeds," because my experience is just the reverse. I do not think it at all possible to judge of the comparative amount of grass necessary for the consumption of each breed; that must necessarily be theory; but I have fully tested the comparative quantity of grain necessary to fatten them, and find the Cotswold sheep, even yearlings, will consume much less, and fatten much faster. They do not travel off their food like others, but fill themselves, and lay down and ruminate, like cattle. Their propensity to lay on fat is notorious.

Berryville, Virginia,

J. W. WARE.

REMARKS.—We have not space, this month, to discuss this subject with our experienced correspondent, but must content ourselves with saying that the most reliable experiments which have ever been made, in regard to the comparative value of the different breeds of mutton sheep, fully prove that sheep consume food *in proportion to their live weight*—and that a Cotswold weighing 200 lbs. will eat as much again food as a South Down weighing 100 lbs. The same experiments prove, however, that the Cotswolds will produce more mutton for the food consumed than any other breed. EDs.

TEMPERATURE OF THE EARTH.—A paper read before the British Scientific Association states that, with a thermometer sunk to the depth of three feet in the earth, the greatest cold was experienced in February; at six feet deep, the lowest temperature was in March; at twenty feet deep, in April; and at the depth of twenty-four feet, it was *colder* in July.

### ADVANTAGES OF PULVERIZING THE SOIL.

THE effects of pulverization or stirring the soil are numerous:

1. It gives free scope to the roots of vegetables; and they become more fibrous in a loose than in a hard soil, by which the mouths or pores become more numerous, and such food as is in the soil has a better chance of being sought after and taken up by them.

2. It admits the atmospheric air to the spongi-oles of the roots—without which no plant can make a healthy growth.

3. It increases the capillary attraction or sponge-like property of soils, by which their humidity is rendered more uniform; and in a hot season it increases the deposit of dew, and admits it to the roots.

4. It increases the temperature of the soil in the spring, by admitting the warm air and tepid rain.

5. It increases the supply of organic food. The atmosphere contains carbonic acid, ammonia, and nitric acid,—all most powerful fertilizers and solvents. A loose soil attracts and condenses them. Rain and dew, also, contain them. And when these fertilizing gases are carried into the soil by rain water, they are absorbed and retained by the soil, for the use of plants. On the other hand, if the soil is hard, the water runs off the surface, and instead of leaving these gases in the soil, carries off some of the best portions of the soil with it. Thus, what might be a benefit becomes an injury.

6. By means of pulverization, a portion of the atmospheric air is buried in the soil, and it is supposed that ammonia and nitric acid are formed by the mutual decomposition of this air and the moisture of the soil—heat also being evolved by the changes.

7. Pulverization of the surface of soils serves to retain the moisture in the subsoil, and to prevent it from being penetrated by heat from a warmer, as well as from radiating its heat to a colder, atmosphere than itself. These effects are produced by the porosity of the pulverized stratum, which acts as a mulch, especially on heavy soils.

8. Pulverization, also, as the combined effect of several of the preceding causes, accelerates the decomposition of the organic matter in the soil, and the disintegration of the mineral matter; and thus prepares the inert matter of the soil for assimilation by the plants.

SOME seeds of the cork tree were sent by the Patent Office to California, which were planted, and about 75 per cent. have germinated and promise to become naturalized in that country.

### KERRY CATTLE.

SANFORD HOWARD, in his letters to the *Boston Cultivator*, speaking of his visit to Ireland, says:

"I found these cattle even smaller than I had supposed them to be, but evidently very useful in that locality—living where no other cattle that I have ever seen could live. In several instances I met with them at elevations of fifteen hundred to two thousand feet above the sea, sharing with the goat, the wild herbage of the mountain's side. The color varies from black to black and white, brindled, and red; but clear black is preferred as indicating the nearest affinity with the original type. I hardly know how to estimate the weight of these cattle, as they are so different from any others I have been acquainted with. The two-year-old heifers which I bought for Mr. AUSTIN—rather larger of their age than the average of their breed—girthed from four feet five inches to four feet six inches. They are large-bodied in proportion to their height, their legs being short and the shank bones very small. Their heads are generally handsome, and the countenance lively, but with a mild expression. The best of them are decidedly pretty. When taken to the low country and supplied with plenty of nutritious food, they become more bulky, but I had no opportunity to see what would be the effect of breeding them for several generations in a milder climate and on better soil. As illustrating their hardness, I will mention an incident: A man led me up a mountain glen to see a lot of three-year-old heifers he had grazing there. It appeared a mystery to me how the cattle could get around and over the rough rocks and obtain a subsistence even in summer. Having noticed that the man had several stacks of hay down in the valley, where was the rude habitation which he called his home, I asked him if he was going to take Kerry cattle there for the winter. He replied—"No, the hay is for the low-land cattle and ponies; the KERRIES will winter where they are." I asked him if deep snows did not fall in the mountains. He said they did, sometimes; "but the snow generally softened after a day or two, and the cattle could work through it."

"I could not generally obtain any definite statements in regard to the yield of milk or butter of these cows, but a reliable man who kept several of this breed, near KILLARNEY, told me he had often had them give ten imperial quarts of milk per day, each, and then had a four-year-old cow, which I saw, that had afforded six pounds of butter in a week.

"I may here mention, that the butter I have eaten in this part of Ireland, both this season and the last, is actually the best I ever tasted. I know not whether the superior quality is attributable to the cows, the herbage, or the mode of manufacture, or all combined. The butter has a wide reputation, and commands in London an extra price."

FLINT well says: "*Keep your cows in good condition*, should be the motto of every farmer, posted up over the barn door, and over the stalls, and over the milk-room, and repeated to the boys whenever there is any danger of forgetting it. It is the great secret of success in dairying, and the difference between success and failure turns upon it."

## SPIRIT OF THE AGRICULTURAL PRESS.

TO DESTROY THE PEA-BEETLE OR BUG.—A correspondent of the *Country Gentleman* says that putting the peas in a tight vessel, and mixing two ounces of pulverized camphor, or a table-spoonful of sulphuric ether, to each bushel of peas, will effectually kill all the bugs in them in a few days. This is a remedy often published before, but worth repeating, if true.

OPEN vs. COVERED DRAINS.—Mr. MECCHI thus explains the cause why covered drains are more effectual than open ones: "A deep, open ditch will not drain the adjoining soil; because, when the sides are dry, the water rises to the surface by capillary attraction, and thus heads back the water behind it. Lay pipes at the bottom of this ditch, and fill it up, and it will then effectually drain the adjoining soil."

TYING UP CATTLE.—"Tamworth," in the *Stock Journal*, condemns the practice of tying up cattle, and says animals that are much confined, besides their poor health for want of exercise, have loose, porous, coarse flesh, with comparatively relaxed, and therefore light-weighting, muscular fibre; and much of the space which should be filled with muscle, or lean meat, is supplied with loose, light-weighting fat. Size in excess is *not* a sure index of proportionate extra weight; for many middle-sized animals of compact form and hardy constitution are really much heavier, bulk for bulk, than larger animals.

SOILING COWS.—HON. JOSIAH QUINCY says, one of the advantages gained by soiling is the saving of land. One acre will support three cows during the soiling season. The cows are turned out but two hours, morning and evening, and the balance of the time they are kept in the stables. They keep healthy, and yield more milk annually, than cows usually do. One man will take care of, feed, water, clean, and milk twenty cows. They are fed four or five times a day.

HOW TO GET UP A FARMERS' CLUB.—The *N. H. Journal of Agriculture* says:—Get up a meeting among those interested in the improvement of their minds, and make it as sociable as possible. Adopt no rules at first. Decide upon a subject for discussion at the next meeting; invite others in; and let it be the especial aim to keep everything cosy and familiar. Keep the text steadily in view, of improving ourselves and each other. Well conducted farmers' clubs have increased the average yield of crops in some townships, 25 per cent.

HOW TO KNOW A HORSE'S AGE.—The *Wool-Grower* says, after the horse is nine years of age, a wrinkle comes on the eyelids, at the upper corner of the lower lid; and every year thereafter he has one defined wrinkle for each year over nine. Add the number of wrinkles to nine, and you will then know the age of the animal. Will some one ascertain the truth of this statement?

BLACK TONGUE.—A correspondent of the *South-ern Cultivator* gives the following as a remedy for this disease: Have a swab of soft cloth made and attached to a handle two feet long; dip this in spirits of turpentine, and wipe out the mouth of the animal affected, two or three times a day, if necessary, and it will get over it in a few days.

FOUNDER.—A writer in the *Cotton Planter* says: Clean out the frog of the foot; let all the dirt be well scraped off. Raise the foot so as to be level; pour spirits of turpentine on the sole, just enough to fill the hoof without running over; then set the turpentine on fire, and let it be entirely consumed.

SHOEING HENS.—A writer in the *New England Farmer* recommends the encasing of the feet of fowls in woollen bags or socks, for the purpose of preventing them from scratching in the garden. Would it not be well to do the same thing in winter to keep their feet warm? It is well known how frequently they get their feet badly frozen.

SPARE THE BIRDS.—H. W. BEECHER says: The man that would shoot a robin, except in the fall, and then really and conscientiously for food, has in him the blood of a cannibal, and would, if born in Otaheite, have eaten ministers and digested them too.

HORN AIL, OR HOLLOW HORN.—The *New England Farmer* says there is no such thing; it is merely an incorrect name for some ailment which has nothing to do with the horns. Standard writers on veterinary practice also hold the same opinion. DADD ascribes the symptoms which attend horn ail, to a general derangement of the health of the animal, and recommends the use of purgatives, and to stimulate the digestive organs and the circulation by aperients and stimulating liniments.

ITALIAN BEES.—The *Ohio Cultivator* gives an account of some bees recently imported from Europe by Mr. COLVIN, of Ohio. They are said to be superior, in many respects, to the common bee. They are more industrious and lay up a larger store of honey. The queen is more prolific; consequently, more swarms are raised each year.



### NOTES ON THE OCTOBER AND NOVEMBER NUMBERS OF THE GENESEE FARMER.

"*Refuse of Tanneries.*"—Large quantities of valuable materials for manurial purposes are annually wasted at many of our large tanneries. If farmers in the vicinity of such tanyards were fully aware of the worth of these waste matters, we think they would oftener secure them for enriching their lands. There is the lime, which, after having been used for starting the hair on hides and skins, is worth more, bushel for bushel, for composting with muck or loam, than fresh lime; for there is usually much hair and other animal matter mixed with it; and during the process of composting, if continued for a few months, much nitrate of lime will be formed, a substance very analogous to nitrate of potash (salt petre), which is a quick and active manure for grain and grasses; besides which, the acidity of the muck would become neutralized, rendering the whole mass a valuable manure.

Horn piths are a lasting and valuable manure—worth more, pound for pound, than the hard and more solid bones. This difference is caused by the more open and porous structure of the piths, which renders their manurial qualities,—nitrogen and phosphates,—more readily available to the action of the roots of plants than are those of the more solid and harder bones. Within a few years, I have used many cart-loads of horn piths upon my farm, purchasing them at a tannery about one mile from my place, paying about \$1.50 per cart-load; portions of which I have sawn, or broken with heavy hammers, and then plowed them in—in some instances applying at the rate of 150 bushels per acre. A few cart-loads I use whole for manuring potatoes in the hill; a pith in a hill will double the crops over those hills receiving no manure. The same pith will serve for manuring in the hill for ten or more years. The longer they are used, the more effective they are, because every year they become more soluble.

Then there is the fleshings, that are separated from the hides while being worked over the beam, both before and after being lined. Sometimes these fleshings can be procured at the tanyards in large quantities, and at reasonable prices. They can be plowed in, or perhaps, what would be better, composted with swamp muck, or a clayey loam, for a few months previous to being used. The muscle of animals is extremely rich in all the ingredients necessary for our cereals and other crops. Hair from South American hides is usually too short for mixing with lime mortar, but it makes a durable and valuable manure, being as rich in nitrogen as the best Peruvian guano.

Spent tan mixed with lime, ashes, or green manure, will, in course of a year, so far decompose and part with its acidity that it may be safely and profitably applied to naturally dry soils, in large quantities.

I here suggest to farmers, living in the vicinity of tanneries, to secure as much of these waste matters as they can, if obtainable at a reasonable price. "Gather up the fragments, that nothing be lost," is an injunction as obligatory upon us as it was upon those who lived eighteen centuries ago.

"*The Bark Louse*" is a real pest to many of the apple trees; but they can be mostly removed by carefully washing the trees with strong soap-suds

and tobacco-water, applied as warm as the hands can bear, using a wollen rag, and rubbing each branch separately, as stated by S. M. But it makes a material difference at what season of the year the operation is performed. Sometime in June, the eggs beneath the muscle-shaped scales hatch out, and the young insects escape, and fasten themselves upon the smooth bark of the bodies, branches, and smaller limbs of the tree, where, by careful inspection, they may be seen in great numbers, appearing as very small white specks upon the bark. While in their *infant* state, is the most eligible time to use the wash. It does not require much rubbing with the wollen cloth to eradicate them; but if left to form and harden their shells, it is a much more difficult matter to remove them. Those having apple trees infested with bark-lice, please recollect what I have written. Examine your trees next June, and ascertain whether I am not correct. A small microscope will aid one much in examining these minute white specks.

"*The Insects on Mulleins,*" and in clover heads, have been supposed by some persons to be identical with the wheat midge; but a microscopical examination shows them to be very different insects.

"*Notes for the Month by S. W.*"—His remarks on "the best food and treatment for hens," contain much good common sense and valuable practical information. Those wishing to have their hens lay well, had better re-peruse the article; and if they get it "by heart," it may be all the better for them.

A. BAER, Jr., has a good article on the "*Destruction of our Forest Trees.*" Railroads in this section of the country have played the very deuce with our wood and timber lots. This "devil take the hindmost" policy, that is sweeping our wood and timber lands, will yet bear hard upon *posterity* in this cold section of the country. However, some cold, phlegmatic characters, console themselves with the plea, that as posterity have done nothing for them, they have nothing to do for it.

"*Hungarian Grass,*" has been a fruitful subject of discussion. There are several varieties of millet or Hungarian grass, and probably this has led to mistakes on the part of different writers. I have grown the yellow-seeded, years ago, then known as common millet. Have also grown the purple-seeded and purple headed, which I think has generally been considered the true Hungarian grass. At least, this is the kind sent out from the Patent Office, labelled Hungarian grass. I have another variety called Hungarian grass. The heads of these two varieties as stated by C. W. DAVIS, (Oct. No. G. F., page 311.) "do not resemble each other any more than the heads of oats resemble wheat." (I will forward with this a sample of each). It looks to me as though Mr. DICKINSON and Mr. DAVIS are both laboring under serious mistakes. I think Mr. DAVIS never saw the variety sent out from the Patent Office as Hungarian grass; for this same thing by many is called German millet. While growing, and up to the time of putting out its spike or head, it can hardly be told from what is usually termed here, barn grass, pigeon grass, &c.; but after heading, the head also very closely resembles the panicle or head of the barn-grass—excepting in *color*. The head of this Hungarian grass, or millet, is of a *purple color*, while that of

barn-grass is of a yellowish-green color. The variety Mr. DAVIS describes as "having a long, flat, branching head," I suspect Major DICKINSON had never seen, when he "pronounced Hungarian grass the millet and barn-yard grass of forty and seventy-five years ago." This open-paniced variety much resembles the head of broom corn. Up to the time of its heading out, it so closely resembles tickle-top-grass, that they can scarcely be discriminated. Either variety, under favorable conditions, will yield large crops of forage. Of their quality, as cattle fodder, I have not yet had experience sufficient to justify me in expressing an opinion. Mr. DAVIS says: "We get but one stem and one head from each millet seed; while from the Hungarian grass we get from one to ten." I have just counted the heads produced from a single seed of the purple-topped Hungarian grass, and find there are sixteen heads. The open-topped also branches, and produces a large number of heads from a single seed. Whether the yellow millet produces more than one head to each seed, I am unable to say; for it is some ten years since I raised it. C. L. FLINT, in his valuable work on Grasses, gives a plate, drawn from the purple-topped variety, as the Hungarian grass. So also does Mr. KLIPPART, in his Report of Ag. Ohio, 1857. Will Mr. DAVIS tell us if the open-paniced variety is what he considers the true Hungarian grass?

"*Painting Houses.*"—*Rural Register*, Baltimore, says: "A white house with green blinds offends the very first principles of good taste." If so, the people in this region have a very vitiated taste in these matters. But has one man a better right to say what is in good taste, than another in this matter of the color of a house?

The first article in the November number on the "*Wheat Plant*," followed by a review of Mr. KLIPPART'S, book on the Wheat Plant. As I have not yet seen the work, it becomes me not to express any opinion upon its merits, pro or con.

"*Boys, Study Ag. Chemistry.*"—Yes, boys, be sure to study that branch of the science, if by so doing you have to neglect some other of the usual branches of instruction.

"*Cutting Hay for Stock.*"—Farmers differ widely in their views and practices in this matter. Much can be said upon both sides of the question; but haven't room here to discuss the matter.

The Editorial on geese and their management, in connection with the life-like engravings of the several varieties, is a valuable paper for those who wish to breed the different kinds of water-fowls.

"*Moving Machines.*"—It seems Mr. BUNDY retires from the discussion on "Patent Right Machinery." He has been engaged in this "pen and ink" discussion about two years. But I am quite unable to decide who comes off second best in the controversy. Presume Mr. B. will occasionally favor the readers of the *Genesee Farmer* with his views upon other subjects connected with the great interests of agriculture.

"*Buckthorn Hedge.*"—"Enquirer" should sort his plants, set the largest in the poorest portion of the soil. After they are set out, cut them within four or six inches of the ground. Cut back again once or twice a year, so as to get a thick bottom to start with. Save some of the sets in a nursery, to

fill up vacancies, if any should occur—though if they are carefully transplanted, there will scarcely one in a hundred fail. I once set out a hedge of buckthorn, two-year-old plants, of over thirty rods in length, and did not lose a single plant. The ground on each side the hedge should be kept free of weeds, grass, &c. This can be done by cultivation, or by mulching with straw, refuse hay, or similar materials. But mind, don't be in too great a hurry to get a *high* fence; if you are, it will be too open at the bottom. The form of the hedge should be like the roof of a house. The buck thorn, when properly cultivated and trimmed, makes a close, beautiful hedge, and is not subject to any disease, nor the depredations of insects, nor liable to winter kill. L. B.

Warner, N. H., November, 1859.

### WHEEL vs. SWING-PLOWS.

THE writer of the article "Agriculture," in the last edition of the *Encyclopedia Britannica*, considers wheel-plows much superior to swing-plows. He says:

"Ever since the introduction of SMALL'S improved swing-plow, the universal belief in Scotland, and to a considerable extent in England, has been, that this is the best form of the implement. Wheel-plows have accordingly been spoken of by Scottish agriculturists in the most depreciatory terms, and yet it turns out that this has been nothing better than an unfounded prejudice. For when subjected to careful comparative trial, as has been frequently done of late, the balance of excellence is undoubtedly in favor of the plow with wheels. Its advantages are, that it is easier of draught—that the quality of its work is better and greatly more uniform than can be produced by a swing-plow—that in land rendered hard by drought, or other causes, it will enter and turn over even furrows when its rival either can not work at all, or at best with great irregularity and severe exertion to the plowman. This last quality has indeed been urged as an objection to wheel-plows, as their tendency is to produce a class of inferior workmen. Those who know the difficulty of getting a field plowed uniformly, and especially of getting the depth of furrow specified by the master adhered to over a field, and by all the plowmen, can best appreciate the value of an implement, that when once properly adjusted, will cut every furrow of an equal width and breadth, and lay them all over at exactly the same angle. In every other art the effects of improved machinery is to supersede manual dexterity; and it does seem absurd to count that an objection in agriculture which is an advantage in everything else. There is more force in the objection that wheel-plows are inferior to swing ones in plowing cloddy ground, or in crossing steep ridges. This objection vanishes when it is known that in the most improved wheel-plows, the wheels can be laid aside at pleasure, and that they can then be used in all respects as swing-plows."

LIME AS MANURE.—A correspondent at Pughtown, Chester Co., Pa., writes that he finds lime the cheapest manure he can purchase. He pays ten cents a bushel for it, and draws it thirteen miles.

## NOTES FOR THE MONTH—BY S. W.

TRUE CRITICISM.—I have often heard the farmer readers of the *Genesee Farmer* give to its veteran editor the praise of being one of the most watchful sentinels of the agricultural press, both in saving the farmer from imposition and frauds in special or spurious manures; and also from false doctrine and empiricism in the form of printed publications, ostensibly sold for the benefit of farmers, but really to get their money. But on reading his slashing criticism, in the last *Farmer*, on Secretary KLIPPART's book, I could but feel that the strictures on that perhaps pretentious issue, would have come more legitimately from those of whom the author has so liberally borrowed, so awkwardly understood, and so sadly misrepresented. What must those indefatigable experimenters in the science of vegetable growth and nutrition, J. B. LAWES and Dr. GILBERT, think, when from the published results of their costly, consecutive experiments in growing wheat for the last eighteen years, the American author, instead of giving the practical results of their labors, copies only the analysis of some of their experiments on the composition of the wheat grain, and erroneously gives this to his readers as the gist of their disagreement with LEBIG in his "mineral theory." Verily, if the old adage is true, those gentlemen should exclaim, "Save us from our friends." But methinks Secretary KLIPPART is fortunate in having such an analytical reviewer as the editor of the *Genesee Farmer*, for he may be so far benefitted by his strictures as to be enabled to give us a corrected and improved second edition of his book. How much better for an author to be even a little scathed by true criticism, than to be cursed by that stereotyped praise, now so universally bestowed on every book as it falls from the press, on to the editor's table. The day was when a book was always read, if its contents were not always mentally analyzed, before it was praised; but in this fast age, such a consummation must often be dispensed with, as the number of books now presented for editorial puffing, not criticism, is legion. It is said of the wife of one of our Presidents, that on a busy day of her soirée, she was seen reading a new book. To excuse herself for being thus employed, she told her friends that the author had sent the book to her that morning; and as he would be at the soirée, *sur le soir*, she wanted to be able if possible to speak to him favorably of his book. How many authors, when they ask for an approval of their bantling, become impatient of that true criticism, without which they can not hope to grow in the graces of book-making.

THE ADDRESS OF HON. JOHN A. DIX, AT THE NEW YORK STATE FAIR.—This address, at our great agricultural festival, was truly a broad and statesmanlike production, applied to the rural interests, not only of this State, but of the whole Union. How much better to show the farmers the importance of the foreign demand for their products, and its progressive increase, than to stimulate their prejudices against our great commercial interests, by an overweening wail, in favor of prohibitory laws in the shape of tariffs for increased protection to our manufacturing industry, just as though our manufactures were not now thriving and increasing by the aid of fixed and

daily improved machinery, to an extent the old world never so quickly attained; and what to the protectionist must be the greatest puzzle of all, is, that those trades and manufacturing mills and workshops have succeeded best that have been a tariff to themselves, in their superior industry and economy, and without any legislative bounty in the shape of an emasculating tariff for protection.

Again, Mr. Dix does the State rural some service, in the practical manner in which he explodes the long stereotyped slanders of the soil of the great unclaimed area of Long Island. After spending more than twenty summers on this matchless island, and well noticing the late very productive farms made on those long cycled barrens, he says: "The delusion was natural enough with those who only knew central Long Island by description; for one of her grave historians pronounces this region to be 'a vast barren plain, with a soil so thin and gravelly that it can not be cultivated by any known process.' And yet," says Mr. Dix, "from personal survey, the soil of this whole region, with some inconsiderable exceptions, consists of a rich loam, from twenty to thirty inches in depth. Some of the best farms of the island, or in this part of the State, have during the past five years been made in this *condemned region*. In a few places, the gravel with which the surface soil is underlaid crops out, but these localities are believed not to exceed two per cent. of the whole island." "Of all the districts of this State," says Mr. Dix, "this has the finest summer climate, and the winters are mitigated and made temperate by the surrounding waters. Closer observation and successful experiment have dissipated misapprehension in regard to its fertility; they have shown that its soil is warm, genial and productive; and there is no hazard in predicting that it will at no distant time become the garden of the city of New York."

It is refreshing to learn that the State Commissioners for equalizing the taxes of the different counties of this State, have made a stir among the dry bones on Long Island, by marking up the taxable lands in Queens and Suffolk counties about two and a quarter millions of dollars.

GOOD STOCK THE MOST PROFITABLE.—In my father's yard during the winter are several head of cattle, young and old. Some are natives, but the greater portion are grades with from one-half to seven-eighths Short-horn blood in them. All the stock are treated alike, and receive the same food, and the same care and attention. The cows are warmly stabled, and the young stock have good warm sheds, and plenty of straw. The native cows eat their meals quickly, and then grab all they can from their neighbors. The native stock in the yard do the same. The grades eat quietly and contentedly, and submit to being plundered of their last morsels by the others. Yet the grades come out in the spring increased in size, in good condition, and with sleek coats, while the natives seem to stop growing and get so poor it requires a summer pasturage to get up their condition and start their growth again.—W. S.

THE number of sheep killed by dogs, in Ohio, in 1858, was 60,536; and the number injured, 36,441.

## MR. RAREY AT THE ALHAMBRA.

"Quot homines, tot sententia."

WHAT! never seen RAREY?

So one Saturday, like the dandy who went down in the coal-pit, not that he cared much about it, but merely to say he had been there, we and a great many more found ourselves, about a quarter past twelve, seated in the Alhambra.

The palace, with the clean straw nicely arranged in the circus, a capital light, a very good audience, not in mourning, as in the evening, but in morning costume, of all colors of the rainbow, with a fair sprinkling of crinoline, and the circus free from all unpleasant odors—which most theatres are not, in the day time, especially where equestrian performances take place—was quite an agreeable surprise.

Mr. RAREY entered the arena, bowed, and said, he wished to make a few observations, relative to a report of one of his pupils, Cruiser, having worried a man. The fact was, the groom was exercising Cruiser; and some horses he was going to practice on in an adjoining stable "excited" the horse, and Cruiser certainly did give the groom a severe bite in the arm; horses generally bite pretty hard. They must recollect this was the first accident he had had, and he had now been nearly two years among them; and that Cruiser was allowed to be one of the most vicious horses ever known. He must say that he thought the press had been rather hard on him in making so much of the accident, considering four or five patients were lying at the same hospital, suffering from injuries received from vicious horses; and yet some of the press stated that vicious horses were so scarce in this country that he could not get any to perform on. He did not pretend that he could teach every one his system, for it required nerve, and, like everything else, practice; and even with all the practice in the world, some would never succeed, &c., &c.

Cruiser was then introduced, looking "blooming."

Mr. RAREY informed the company he had only two interviews with Cruiser, since the accident. He then put the horse through the same process—but with much more ease and confidence—as the groom was wont to do every evening at the Alhambra for some months ago—lying down, following, standing still, and advancing when told, &c. While Cruiser was down, and Mr. RAREY was rapping the horse's hind heels together, there was a look about the eye of Cruiser—such a look!—with a handful of straw between his nippers, clenched as if in a vice, that put us in mind of Van Amburgh and the tiger—so tame.

Then came a half-bred mare, that did not show anything like vice, went through the business of going down, heels rapped, drum, &c.; Mr. RAREY repeating parts from his book.

The next subject was a black Galloway, a "model undertaker"—such a mane and tail, with his head reined up so tight that he had as much liberty with it as one of his master's men would with the addition of an all-rounder to his white choker. We understood Mr. RAREY to say he had never seen the gentleman in black before; that the horse was quite master pig at home, and had never been ridden. We noticed Mr. RAREY did not appeal to our sable friend's frontispiece, like he did in the half-bred mare, and as you are instructed in the book, but touched him in a playful manner in the flank,

when the brute squeaked, but did not offer to kick, bite, or fight with his fore legs. After several squeaks, Mr. RAREY produced the straps, and a regular set-to commenced, which lasted with the second round (for the plucky undertaker got up again, after being fairly thrown,) quite half an hour. Mr. RAREY, during a cessation of hostilities, informed the audience he had three hours with Cruiser the first time he got him down, which seemed to alarm a few ladies and gentlemen in our quarter. The undertaker eventually cried peccavi, in a perfect lather, and both man and horse blowing as if they had had a four-miler, Mr. RAREY feeling, we should say, pretty much like Napoleon after defeating the Austrians, as if he did not care about such another job, at least for the day. When rapping this horse's heels together, he lashed out viciously three or four times; but with all his vice, some son of Vulcan had managed to nail on a pretty good pair of hind shoes. The horse appeared afterward to walk very stiff, and trembling with the near fore leg; there was a curious action about the knee and fetlock. We fancied Cruiser's knee was slightly enlarged. The performance lasted about an hour and three-quarters.

Mr. RAREY is decidedly a very clever cool hand with horses, and for once is worth seeing. As to his system, we don't believe in it. We all know what a mess the gentleman who was cured of stammering made of "Tha-a-a-at's the ch-a-a-ap tha-a-a-at c-u-u-u-red me," when he got "excited" on hearing some one mention the doctor's name in the next box. We all know how a great many ticket-of-leave-men, when they get out of the Reformatory, and have half a chance, get "excited," and are up to their old tricks again. We all know that dogs, confirmed sheep-worriers, directly they are out of sight, get "excited" and are after the mutton as usual.

It's the same with Mr. RAREY's system, and we seriously advise "all friends and the public in general"—as the advertisers say when thanking imaginary customers—if they should have anything to do with these said-to-be-tamed animals, to keep their eyes on the main chance; always be on their guard. By such means only will they be likely to prevent horses like Cruiser and the Cretingham Hero from adding more to their list of killed and wounded.

The only difference we saw between Mr. RAREY's and Mr. Cooke's system was, that Mr. RAREY brings the strap of the off fore leg under the horse through the roller by the girth place, and pulls upward on the near side. Mr. Cooke brings the strap of the off fore leg through the roller over the back, and pulls downward on the near side.—*London Farmer's Magazine.*

CORNSTALKS FOR MILCH COWS.—It is undesirable that milch cows should be allowed to feed on dried cornstalks. They are apt to cause them to fall back in their milk; and although the quality of the milk may be improved thereby, yet it will not be in a corresponding ratio to the loss in quantity. The same may be said of the frozen grass remaining on the fields. Keep your cows well housed, and give them good hay and roots, or bran mashes, if you wish to have them yield milk in winter.

## ANSWERS TO SEVERAL INQUIRIES.

EDITORS GENESEE FARMER:—I seek information from your pages, and am willing to give you my views.

Your correspondent J. S., of Onawa, Monona county, Iowa, asks in your April number, "What is the most profitable breed for wool growers?" Why confine himself to the fine wool sheep? Why not take the sheep of the most profit, and not rely on wool alone for profit? The Cotswold sheep will give more money per fleece, and I never sell my muttons under \$10 each, and that the fall of the year they are one year old. I have sold them much higher. I refer him to my piece in your February number, page 47.

Again, he asks, "Is there any horse in the world equal to the blood horse, the best thorough bred four mile racers of England and America, to produce long lived horses of active stride and power?" I think there is not. Action, strength, and enduring qualities (bottom), are desirable in all breeds of horses, for all purposes, and in no breed of horses can they be looked for with so reasonable a prospect of success, as from the old four mile race horse; for he can not be a race horse without *all* of these qualities. But the breeder must be particular about the right kind of blood, for there are some fine race horses who do not transmit their qualities, because chance racers themselves.

"At what age ought mares to breed to make it best for them and colt, that is, if you want to produce the best possible horses in the long run?" The most solid horses are from parents past ten years old at the time of copulation. The old Napoleon of the turf, Col. Wm. R. Jounsox, of Virginia, said, if he was raising a mare for breeding purposes only, if well grown, he would commence breeding from her at two years old, not for the value of her first colt, but for the extension of her breeding properties and enlarging her nursing capacities.

"What is the best feeds for colts the first winter?" A little oats scalded, with offal or meal, and good hay, occasionally a bucket of water with a handful of salt stirred in it.

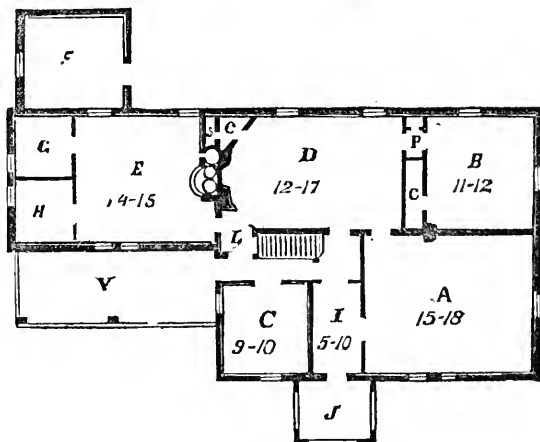
Answer to J. J. S., West Point, Ohio, on Cotswold sheep, also in your April number: I have kept Cotswold sheep for a number of years. I always import the winners of the high prizes of the Royal Agricultural Society of England. I do not confine mine at all. I have a common straw shed shaped like a roof, on account of its width, in the summer open all around, in winter open only to the south; they go in and out at pleasure. I have occasionally had some running at the nose like other sheep, not more so, if as much. I never do anything for it; it is only a cold in the head, which soon passes off, doing no harm. I have not found it characteristic of the breed. Probably J. J. S. has not the pure breed, or procured them from breeders who have raised them with too much tenderness.

Berryville, Clark Co., Va.

J. W. WARE.

## DESIGN FOR A SMALL HOUSE.

In response to an invitation in the October number of the *Farmer*, to furnish its readers with designs of cheap country houses, I send you the accompanying ground plan. It was suggested by, and is in many respects nearly the same as, the design furnished by Mr. HARNEY in the October number. I have reduced the size of the rooms to the moderate necessities of an ordinary small farmer's family. The parlor is made to communicate directly with the dining-room, and the door between the parlor and the bed-room is left out. Those who prefer it there can have it, of course. In other respects, the plan needs little explanation. The apartments are the same as in Mr. HARNEY'S design, and the remarks given in connection with that will apply to this. The house may be built in the same style as his, either two stories, or, if economy in money is an object, of a story and a half. The style is, in fact, better suited to a low house than to a high one, and it has an essentially cottage-like expression. Built one story and a half high, with the porch, the verandah, the dormer windows, the brackets and the ornamental chimney tops, it would have a very cheerful effect, and could be built thoroughly for about \$2,000; and under favorable circumstances, where the builder could deliver his own materials, and perform with his ordinary laborers some of the coarser work, the cost might be reduced to \$1,500.



PLAN FOR A SMALL HOUSE.

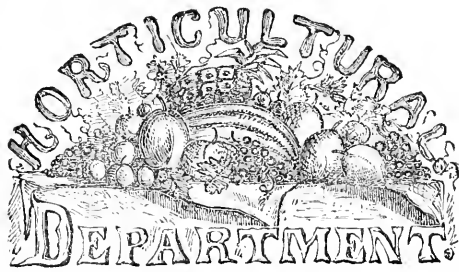
DESCRIPTION OF PLAN.—A, parlor; B, bedroom, with a large closet, *c*; C, office or library; D, dining or living room; E, kitchen; F, covered wood-yard; G, store-room; H, pantry; I, hall; J, porch; L, staircase hall; V, veranda.

Hartford, Ct., Oct. 20.

GEORGE D. RAND.

CURE FOR POLL-EVIL.—Let C. G. N. peel the inside of black ash bark and burn it to ashes, free of all other ashes, and mix it with soft soap. Apply it as a poultice once or twice when he first notices a swelling. Should the swelling re-appear, treat it as before. My father cured a mare fifteen years ago last spring, and it never has returned since. The mare is 26 years old, and her head is as limber as ever.—D. S. C., *Fairfield, Ind.*

LEAVES make excellent bedding and excellent manure, more easily spread and mixed with the soil than when long straw is used.



### SCREENS AND ORNAMENTAL HEDGES.

IN this country, at the present time, the subject of hedges is one that attracts the attention of every cultivator, whether of broad acres or of a village lot; and although as a body our farmers and horticulturists have made no great advancement practically, in the way of growing hedges, yet the questions how and when and what to plant, are continually being a-keed.

For defensive hedges, several plants have been proved to combine sufficient qualifications to entitle them to be employed for this purpose. If those who constantly parade their failings to make hedges with various valuable plants, had as much skill or perseverance to grow hedges as the plants they use have the capacity of being grown into good hedges, our ears and our eyes, also, would be better pleased. Whether, however, the Osage Orange, the Buckthorn, the Hawthorn, or what not, be the most valuable for barriers, we do not propose now to discuss.

Strolling cattle and swine, and thievish bipeds, are not the only intruders, against which it is necessary for the cultivator to provide for defense. The severe winds, in the spring months, are productive of much harm, to most crops that are exposed to them. Orchards, whose high tops receive the full force of the blasts, and the kitchen and flower gardens, whose tender products can ill afford untimely checks, particularly deserve the protection that can be given by well grown screens.

In situations, as on prairies at the west, where the wind passes unchecked over a great range of country, and where timber is valuable, the planting of belts of woods of different varieties of native trees can not be too highly recommended; but where a single line, only, is wanted, no deciduous tree is desirable, although at first thought, many rapid-growing sorts, such as Poplars, Willows, etc., may suggest themselves; these are destitute of foliage at the very season of the year when their protection is most needed.

Almost any of the evergreens which flourish in this climate may successfully be employed for

screens. Those which we have seen most used for this purpose, are the American Arbor Vita, Norway Spruce, and Scotch Pine. Planted from eight to twelve feet apart, in a few years they form a close, unbroken line.

Besides the situations we have alluded to, where these screens are desirable, we may also mention that they are not least beneficial on the north and west sides of dwellings, barns, stables, and cattle-sheds. In a garden of about two acres, in the suburbs of this city, that has been under our observation for several years, which is well protected by high fences and trees on the north and west sides, we have noticed a very perceptible difference in the warmth of the atmosphere from that outside. Strawberries are usually ripe in this garden, although it has a northern exposure, a week or ten days before they appear in the market.

For inside division lines, there is quite a variety of plants that are well adapted. It is desirable that these hedges should be kept low—say from three to five feet, so as not to obstruct the view of surrounding scenery. For the purpose of dividing off a portion of ground about the house from the rest of the farm, for separating the lawn from the kitchen garden or orchard, and for inside boundaries of village lots, and for screens to hide unsightly objects and similar purposes, good taste will always prefer a well-grown, tidy hedge to the most expensive kind of paling.

Among deciduous plants for this use, the one most commonly employed is the

Privet (*Ligustrum vulgare*), and it well deserves to be the first in the rank; its tenacity of life, rapid growth, numerous branches, and thick, small, shining, dark green, half-persistent foliage, all recommend it to the favor of the planter.

The common Berberry (*Berberis vulgaris*), is a plant finely adapted for screens, bearing the shears well. The yellow blossoms which it produces in June, followed by bright scarlet berries, make it quite ornamental.

The Althea (*Hibiscus Syriacus*), now becoming well known, we have seen used for screens with a beautiful effect. There are a variety of sorts of this plant, bearing various colored flowers, both single and double. This hedge, in the fall of the year, covered with its hollyhock-like flowers, is a very handsome sight.

The Japan Quince (*Pyrus* or *Cydonia Japonica*), a comparatively new plant, has many points to recommend it for low hedges. Its leaves are small and thick, dark shining green, and very lasting. Its strong thorns render it impenetrable by small

animals, and its beautiful crimson blossoms in the early spring make it appear very gay.

The Hawthorn (*Crataegus oxyantha*), the popular English hedge plant, has been used with various success in this country; and, when well grown, forms a most valuable and ornamental hedge.

Among evergreens, the American Arbor Vitæ is probably the best plant that can be used for low screens. It is so compact in its habit, and bears clipping so readily, that it may always be kept in perfect trim; and for general purposes we would recommend it in preference to all others. We annex an engraving of a beautiful American Arbor Vitæ hedge, growing in the grounds of Messrs. H. E. HOOKER & Co., near this city.



AMERICAN ARBOR VITÆ HEDGE.

The Hemlock forms a far more graceful hedge than the Arbor Vitæ, but requires more perseverance in pruning to form it. It may be used with the best effect on highly finished grounds.

The Norway Spruce, on account of its rapid growth, is one of the most valuable trees for forming high screens. If not planted too close, the trees will develop themselves well at the bottom, and afford a valuable shelter from winds.

Much has been written respecting the details of forming hedges, and is probably familiar to most of our readers. The general rules are simple: First, the variety of plant best adapted to the purpose required. Second, young and thrifty plants. Third, ground well prepared, and, after planting, well cultivated. Fourth, pruning so that a thick bottom is formed.

The pyramidal form is probably the best for the health and effectiveness of all hedges.

“Thus, if from weeds, that rob them of their food,  
Or choke, by covering from the vital air,  
The hoe's neat culture keep the thickening shoots,  
Soon shall they rise, and to thy field afford

A beauteous, strong, impenetrable fence.  
The linnet, goldfinch, nightingale, and thrush,  
Here, by security invited, build  
Their little nests, and all thy labors cheer  
With melody; the band of lovely May  
Here strews her sweetest blossoms; and if mixed  
With stocks of knotted crabs, ingrafted fruits,  
When autumn crowns the year, shall smile around.\*

#### GRAPES IN ERIE CO., PENN.

The *Erie* (Pa.) *Observer* alludes to our statement in the November number of the *Genesee Farmer*, that the *Catawba* grape seldom or never ripens perfectly in this vicinity; and says that if we would visit that county we should there “see a section of country where the *Catawba* ripens every time on the trellis; where there is ‘more land to the acre,’ and better than in any other east of the prairies.” We observe, in the same paper, a statement in regard to two vineyards at North East, Erie Co., Penn. In one, that of WILLIAM GRIFFITH, there is one and a half acres under cultivation; number of vines in bearing, 1,800: weight of fruit, 7,000 lbs., which will produce 400 gallons of wine; or worth in market, at 20 cents per lb., \$1,400. In the other, that of S. HAMMOND, there are two acres under cultivation; number of vines, 2,500—2,000 being in bearing; produce this season, 4,500 lbs; value of fruit in market, \$900.

Of Mr. GRIFFITH'S vineyard, the *Observer* says: “No wine was made the present year, the fruit selling for 20 cents per pound, in Boston, Providence, and other Eastern cities, which is more profitable than wine-making. This vineyard was much injured last season, by plowing between the rows, which should never be done—after the second year. Soil, a loose, dry gravel; dressing, well-rotted sawdust, or chip manure.” The variety of grape is not stated.

#### THE ELIZABETH GRAPE.

At the present time, when the attention of the public is called to so many varieties of grapes, of which the large proportion are worthless, it is with great delicacy we venture to present the claims of another aspirant for honors.

The *Elizabeth* grape originated on the farm of Mr. JAMES HART, near this city, about fifteen years ago. About that time Mr. HART planted some raisin seed in a flower pot in the house; this plant sprung up, was grown in the house three or four years, as it was found that it might not be suffi-



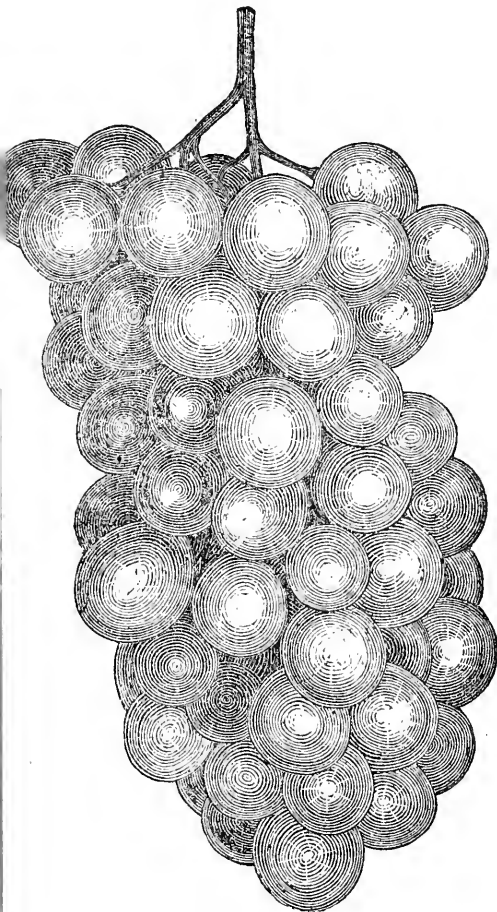
ly hardy for the climate. At that age, however, was planted out, and grew rapidly, and is now a large vine, measuring two and three inches in diameter through the lower part of its stem. It has always been perfectly healthy and hardy.

For three or four years after planting, no attention was paid to the vine, and it grew a mass of roots from the ground. The first season it was trained, it commenced fruiting, which was about ten years ago, and has borne large crops, regularly, ever since. The engraving here given is from

either *Isabella* or *Catawba*, sufficiently acid to render it well adapted for this purpose. The vine is a prolific bearer, and is much esteemed in its neighborhood, where the *Isabella* and *Catawba* are cultivated. It has been somewhat disseminated among the friends of the originator, and is fast coming into repute.

The history of the origin of this vine, as we have related it, is substantially as we heard it from Mrs. HART, and the truth of which we have every reason to believe; but the appearance of the foliage, and the flavor of the grape, to one of delicate taste, give almost unmistakable token of its native origin. Be this, however, as it may, the vine is entirely free from disease, is quite hardy, and a good bearer.

The name attached to it, was given by Mrs. H., in honor of her mother.



ELIZABETH GRAPE.

bunch of medium size, the largest clusters having been gathered before this drawing was made. The grapes are large, compact, sometimes shouldered; berries large, oval; skin, thin; color, greenish white, with a purple tinge in the sun; very little pulp, juicy, a pleasant brisk acid.

We think this grape will prove valuable for wine, and it will yield a much larger quantity of juice than

#### THE DELAWARE GRAPE FOR GENERAL CULTIVATION.

EDS. GEN. FARMER:—I notice, on page 317 of your valuable monthly, that in the report of the meeting of the Fruit Growers' Society of Western New York, Mr. MOODY, of Lockport, was made to say, "The *Delaware* is very valuable for garden purposes, but no farmer ought to set out an acre of it." What he *did* say, was to ask whether "a farmer ought to set out an acre of it." It could not be that so experienced a fruit-grower as Mr. MOODY could have said that the *Delaware* is unproductive as a vineyard grape, or was unfit for a vineyard; because the contrary is its universal reputation.

Mr. J. C. LIEUTWIELER was to-day in our office, and while we were showing him (or another gentleman) the various sorts of grapes which we have on exhibition, and he was tasting the various varieties, he began telling me of his visit to the grounds of J. B. GARBER, of Pennsylvania; "and," said he, "I saw more *Delawares* lying on the ground than would cover this whole table. I never saw vines in my life that bore such crops. GARBER picked them and gave us bunches as freely as if they were the commonest *Isabella*, and the vines were absolutely loaded with them. I never saw a vine bear such crops as the *Delaware*."

The *Delaware*, like the *Diana*, comes very early into bearing; and consequently the crops for the first year or two, from young vines, and newly set out, can not be like those from old established and larger vines. But as soon as it becomes established, the *Delaware* bears the heaviest crops of any known grape. To this fact every one who has seen them in Ohio, or at Mr. CHAS. DOWNING'S, or (as above stated) at J. B. GARBER'S, bears the fullest testimony. And here, on the premises of H. E. HOOKER, Esq., AARON EMERSON, Esq., &c., where the *Delaware* has fruited, the vines have borne more in proportion to their age and

size than almost any other variety I know of, and at least as much as any other. There can be no question as to its hardiness, or productiveness, or profitableness, both for garden and for field-culture. The only question is, when shall we be able to procure it cheap enough for field-culture? For garden-culture, I am fully persuaded, even now, at two or three dollars a vine, the *Delaware* is cheaper and will give greater satisfaction, than an *Isabella* or a *Catawba* at two or three cents; because we shall keep the *Isabella* or *Catawba* or *Clinton* for five or six years, and be dissatisfied from beginning to end, beside loss of time; while with the *Delaware*, I am fully persuaded that its first crop of fruit will amply repay our time and patience; and, if need be, will refund its cost in dollars and cents.

C. P. BISSELL.

Rochester, N. Y., October 14, 1859.

It will be seen, from the following letter from Mr. Moody, that his remarks were misunderstood. It gives us much pleasure to make the correction, as we feared, from his remarks in regard to this delicious grape, that Mr. Moody, while admitting its value for the amateur, had reason to doubt its adaptability to general cultivation.

EDS. GENESSEE FARMER:—I see that in your journal for October, 1859, I am made to have said at the September meeting of the Western New York Fruit Growers' Society, that "the *Delaware* is very valuable for garden purposes, but no farmer ought to set out an acre of it." Now, Messrs. Editors, I didn't say any such thing. I did say that it was very valuable for garden purposes; for that fact I know; but I said I did not know enough about it to recommend it for vineyard purposes, and I asked whether any of the members with more experience would say whether a farmer ought or ought not to set out an acre of it. Every indication is that it is a most enormous bearer, and every body knows that it is the most delicious of fruit.

Lockport, N. Y., Oct. 16, 1859.

E. MOODY.

PROPAGATING FRUIT TREES.—The Chinese have a singular method of propagating fruit trees. They strip a ring of bark, about an inch in width, from a bearing branch, in the spring of the year. The place is then surrounded with a ball of rich earth or loam, bound to the limb with a piece of matting. Over this is suspended a small vessel containing water, and having a hole in the bottom, just large enough to let the water drop slowly through on the ball of earth, in order to keep it constantly moist. Roots spring out from the branch, just above the ring, and enter the ball of earth, where they grow and spread out. In the autumn, the limb is cut off just below this ball, and then planted out at the time of the fall of the leaf. The following year, this small tree produces fruit.

### THE ROSE ACACIA.

THE Rose Acacia (*Robinia hispida*) belongs to the same family as the common locust tree of this country (*Robinia pseud-acacia*). Like this well known tree, it is a native of this country, but is principally confined to the Southern State while the locust is found from Canada to Carolina. All the varieties of the species are shrubs or lo



ROSE ACACIA — ROBINIA HISPIDA.

trees, with tortuous and very brittle branches, with leaves and flowers nearly twice the size of the common locust. They were introduced into England in 1758. Although there are some very fine specimens in different parts of England, they are not much prized as standard trees, on account of their liability to injury by the weather, except in sheltered situations. LONDON says "they form singularly ornamental shrubs for the garden." B. recommends training them against an espalier rail and says, "whenever a magnificent display of fine flowers is an object, it better deserves a wall than many other species; and it is worthy of being associated there with *Piptanthus Nepalensis*, *Wistaria Sinensis*, and other splendid Leguminaceae. When grafted standard high, and trained to a wire parasol-like frame, supported on a rod or post six or eight feet high, few plants are equal to it in point of brilliant display." The Rose Acacia is quite hardy here, and should be more extensively diffused.

TO INSERT CUTTINGS.—Cuttings, if inserted in a mere mass of earth, will hardly throw out roots while, if inserted at the sides of the pot, so as to touch the pot in their whole length, they seldom fail to become rooted plants. The art is to place them to touch the bottom of the pot; they are then to be plunged in a bark or hot-bed, and kept moist.—J. L. Y.



### New Advertisements this Month.

Godey's Lady's Book—L. A. Godey, Philadelphia, Pa.  
 Saturday Evening Post—Deacon & Peterson, Philadelphia, Pa.  
 New York Evangelist—Field & Craighead, New York.  
 Life Illustrated—Fowler and Wells, New York.  
 Temperance Literature—B. H. Mills, Upper Alton, Ill.  
 Home Insurance Company—J. Dorr, Scottsville, N. Y.  
 Vinegar from Cider, Wine, &c.—H. W. Ely, Syracuse, N. Y.  
 Illustrated Annual Register of Rural Affairs—Luther Tucker &  
 Albany, N. Y.  
 Planos for \$150—Boardman, Gray, & Co., Albany, N. Y.  
 Sewing Machine—E. G. Storke, Auburn, N. Y.  
 Book-Binding—F. H. Marshall, Rochester, N. Y.  
 Ear Seed—J. M. Thorburn & Co., New York.  
 Reserve your Cider and Wine—H. W. Ely, Syracuse, N. Y.  
 Spalding's Prepared Glue—Henry C. Spalding & Co., New York.  
 Rural Annual and Horticultural Directory—Joseph Harris,  
 Hester, N. Y.

### The Genesee Farmer for 1860.

It is not a pleasant thought that the present number of *Genesee Farmer* closes our engagement with our subscribers. We can not throw aside our mail books for 1859, containing the names of 25,000 readers, whom we have come to regard somewhat in the light of personal friends, without a feeling of sadness. We can not wish them "farewell." We do not like the thought of parting, and hope for a speedy renewal of their acquaintance. Our new books for 1860 are all ready to receive their names, and we trust not one will be found missing. We hope to give the pleasure of wishing each and all a "Happy New Year" in the January number.

Encouraged by the liberal patronage received the past year, it is our design and our expectation to make the volume for 1860 the best of the series. Our success in the past is mainly due to those true friends of rural improvement who have acted as agents in procuring and forwarding the names of subscribers. We should be glad to take each one by the hand, and thank them for their disinterested efforts on our behalf. This is not our privilege, and we must be satisfied in being all that a distant friend can do to express our gratitude. We shall endeavor to compensate them as far as possible; but we are sure that theirs is a labor of love, and that, like virtue, is its own reward.

At many postoffices we have but one or two subscribers. Such have been pleased with the *Farmer* during the present year, will they not manifest their approbation by forming a club for the coming volume; or, if they can not do this themselves, by inducing some one in the neighborhood to act as agent for the paper. We will cheerfully send specimen copies, showbills, etc., to all who are willing to aid in this matter.

We have endeavored to conduct the *Genesee Farmer* in accordance with its time-honored motto, "The Practical and Scientific Farmer's Own Paper." We have aimed to make it useful to all interested in the cultivation of the

soil. We publish the *cheapest* agricultural and horticultural paper in the world— are engaged in no other business, and have no interests to serve but those of our readers. We have, therefore, no hesitation in soliciting a continuance of their countenance and support.

THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY FOR 1860.—The fifth volume of the *Rural Annual* is just out. We think it will be found the handsomest work of the kind ever published in this country. Among its contents may be mentioned, treatises on the Planting and Management of Fruit Trees; on Insects Injurious and Beneficial to Farmers and Fruit-Growers; on Dwarf Trees—including Apples, Pears, Plums, and Cherries; on the American Black Raspberry; on the Management and Varieties of Pigeons; on Planting Evergreens; on the Diseases of Horses, Cattle, Sheep, and Swine—Remedies, &c.; on Ornamental Deciduous Trees, &c., &c.

It contains *One Hundred and Seven Illustrations*. All but half a dozen or so of these have been engraved expressly for its pages. The drawings of the dwarf pear, dwarf apple, dwarf cherry, and dwarf plum trees, and of the evergreen, shade, and ornamental deciduous trees, were taken from actual specimens growing in this vicinity. Those best capable of judging, pronounce them superior to the best European engravings. The portraits of the different varieties of pigeons were also drawn expressly for the *Rural Annual*. They are spirited and life-like, and can not fail to please the most critical eye.

It is replete with useful and interesting information, not only for immediate perusal, but for future reference; and is so admirably illustrated as to make it an ornament to every farmer's library or parlor table. In short, it is such a book that no farmer or gardener—no rural resident—no one interested in the culture of the soil or in the improvement of the country—should be without.

To those unacquainted with the previous numbers of the *Rural Annual*, we may say that it is a handsome book of 120 pages, published each year, and sold at a price which brings it within the reach of all. It is not, as has been supposed, a relapse of the *Genesee Farmer*. The articles are all prepared expressly for its pages. Every reader of the *Farmer* should have a copy.

Terms, 25 cents each; sent pre-paid to any address on the receipt of the price in three cent postage stamps.

Address JOSEPH HARRIS, Rochester, N. Y.

P. S.—The bound volumes for 1856, 1857, 1858, and 1859, can be furnished at 25 cents each, sent pre-paid by mail to any address.

SHOWBILLS.—The *Genesee Farmer* showbill for 1860 is now ready, and will be sent, pre-paid by mail, to all who wish to extend the circulation of the *Farmer*. It has already been sent to a few of our principal agents. It has been got up at considerable expense, and we can not afford to send it promiscuously to all. We have sent it to those whom we *know* to be interested in increasing the circulation of the *Farmer*. There are doubtless many others well disposed to aid us in this matter, and to all such we shall most cheerfully forward one of these showbills, if they will notify us of their willingness to act as agents for the *Farmer*. Those who have received them will oblige us by posting them up in some conspicuous place.

## NOTES ON THE WEATHER, FROM OCT. 15 TO NOV. 16.—

The month of October gave us but little rain, only 1.21 inches, most of which fell after the 15th. As the rain in September was below the average, October was almost a drought in some parts of the country.

The heat of the last half was 38.7°, or 6° below the average; and of the month was 3° less than the mean for 22 years, or 44.8°.

Clouds prevailed for the last ten days, indeed only the 21st was a clear day, and part of the 20th and 23d, the rest being cloudy, often windy, and dust flying; for the last ten days westerly winds were constant, some snow fell, some ice formed; rain on the 17th and 18th, and rain and hail on the 19th, and some snow on the 20th, hard frost on the 21st, and cold continued for two days more. This was a cold period over the country. This was a cold week in England. A letter to the editor states, that on the 21st was a "snow-storm and severe frost." Very uncommon weather for England at this season. On the 26th was that severe storm along the English coast, in which as many as fifty vessels were lost, and the Royal Charter was lost with 500 passengers.

For several days at and before the 25th, the weather was very boisterous on Lake Ontario. On the 22d was a white frost, and some ice formed at Augusta, Ga. This cold period began along upper Mississippi on the 17th, and at Marquette was a violent snow storm on the 18th, and the cold moved regularly eastward and southward over our own country east of that river to the Atlantic, from Nova Scotia to Florida.

This has been rather unpleasant weather.

November began with a cold windy day, S. and S. W. wind blew, but the clouds were from the N. of west, as often occurs. After frost on the 2d and snow squalls in P. M., the weather become settled, and on the 3d Indian summer began, smoky, become warm, and lasted a week, very fine. On the 10th, the clouds settled down upon us as a fog, and with the smoke made a dark and gloomy time. Lights were necessary at mid-day; wind N. E., and drizzling rain. The peculiar yellowish, or yellow-greenish, color of the canopy was striking, fearful, and all were awed by the sombre gloom. Only the red, yellow, and green rays could penetrate the fog and smoke, and these mingled made the peculiar gloomy hue. Many thought of the earthquake atmosphere. As the rain increased, the smoke came with it, and the wind, changed to west toward midnight and strong, had swept all the smoke and gloom away before next sunrise.

The greater rain of the 12th and forenoon of the 13th put on a new face to things. The drought, begun, had vanished; the cisterns were filled; the breathing was easy, and "the faces were lightened." Little snow has fallen in this State. At Montreal the sleighing began on the 12th. The 15th was fine, and indicated more Indian summer, which all wait for. Temperature of the canal 41°.

The heat of the first half of November was 42.4°, or about a degree below the mean for 22 years.

The export of apples and potatoes has become less as the season advanced; but the quantity of the former, especially, being exported has been immense.

Wheat has risen a little in price in the thirty past days, without any reason that is tangible, except the influence of the flouring interest. The harvest has been generally good in England and France, and breadstuffs rather dull.

WEATHER IN ILLINOIS.—(Absence of two weeks has caused me to neglect to send you a brief of my record Up to this date we have no rains, but pleasant, warm smoky weather.

From Sept. 15th to Nov. 1st.—The last half of September was 61.86°; the mean of the month was 60.83°, being 1.54° warmer than the mean of the last four years. A frost in the last half of the month. The leaves have fallen from the ash, cottonwood, and maple. Rains in the last half 1.73 inches, and during the month 1.94 inches.

The first half of October was 53.16°. Hard frost the 6th; thermometer at sunrise 22°. Frost again the 15th. Rain the first half 0.10; too dry to plow on most farms.

Last half of October, 39.57°. Mean of the month, 46.36° being 1.78° below the mean of four years. Rain during the month, 1.04 inches. Mean of rain for five years, 2.5 inches. Highest range of thermometer, October 3d, at P. M., 83°; lowest, 31st, at 7 A. M., 15°, with a few flakes of snow. During the month there were 9 smoky days 11 clear days with no clouds, and the 7th and 30th, no sun. Prevailing wind N. W.

Nearly all the small streams have dried, and a majority of wells are being sunk, or need sinking, lower, in order to furnish a supply of water.

P. S. Thermometer at 2 P. M. to-day, 64°.—E. BABCOCK, *Marengo, Ill., Nov. 7, 1859.*

WEATHER IN MAINE.—We have just experienced the coldest October it has been the lot of the oldest inhabitant to remember. The thermometer was below 20 several times. Snow fell at five different times. Fir snow on the 8th. Ground froze first time on the 9th. GEO. E. BRACKETT, *Belfast, Me.*

TO OUR CANADIAN FRIENDS.—We have already upward of three thousand subscribers in Canada West; but there is no reason why we should not have twenty thousand. The Farmer is as well adapted to Canada as to the States. The climate and soil of Upper Canada are very similar to those of Western New York, and the farmers and fruit growers of both section can not but be benefitted by an exchange of opinions on agricultural and horticultural subjects.

In order that our Canadian friends may obtain the paper at the same price as those in the States, we pre-pay the American postage. This reduces the profits on a papers sent to Canada more than one-half, and we mention the fact that all those in favor of disseminating agricultural information in the Province may be stimulated to renewed efforts in increasing our circulation. Let us see what our Canadian friends can do for us? Shall we not have twenty thousand subscribers in Canada next year?

A CANADIAN PLOWING MATCH.—MR. S. KING, of Ryerlyman's Corners, C. W., sends us an account of the "South Wentworth Pioneer Plowing Match," which took place Nov. 2d; and appears to have been a very spirited affair. There were 52 entries, 16 of whom were boys. We notice among the prizes a set of harness valued at \$70, and an iron plow valued at \$40; and a wooden plow valued at \$15; besides liberal cash prizes. The Canadians are excellent plowmen, and our correspondent asks, "Can not our Canadian and American boys have a plowing match, next fall, somewhere near Niagara Falls?" We see no reason why they should not. Such a match would be interesting and useful.

CHEAP READING.—One volume of the *Genesee Farmer* contains 334 pages, and the *Rural Annual* 120 pages. In clubs of eight, we furnish the two for half a dollar. Five hundred and four pages for fifty cents! What farmer need be without good reading for himself or his children.

TO CORRESPONDENTS.—At the close of the year, we desire to express our thanks for the many favors received from our correspondents. We regard these communications from practical and experienced farmers and fruit-growers as the very best portion of rural literature. We have on hand over a hundred articles from correspondents, many of which contain valuable information, and which we have laid aside for future use. We hope our friends will still continue to communicate their experience through the pages of the *Genesee Farmer*.

“HOW LARGE A CLUB WILL TAKE A PREMIUM?”—We can not answer this question. We can only judge from the past. Our January premiums in 1855 were taken as follows: A club of 29 took a premium of \$5; 31, \$6; 33, \$7; 34, \$8; 36, \$9; 38, \$10; 40, \$11; 43, \$12; 56, \$13; 53, \$14; 91, \$15; 107, \$20.

The January premiums for 1859 were taken by clubs of 29, 30, 31, 32, 33, 34, 36, 37, 38, 39, 40, 49, 55, 60, 70, 74, 83, 97, 107, 116.

A club of 23 took one of the April premiums of this year.

“WHO CAN COMPETE FOR PREMIUMS?”—Every one can compete. We have no restrictions. One of our friends asks, “if old subscribers will be counted in?” Certainly. The premiums are not offered for the greatest number of new subscribers; but for any subscribers, whether old or new, without any restrictions whatever. The subscribers, too, need not all be at one postoffice. We send the papers wherever the members of the club desire.

THERE ARE MANY YOUNG MEN who could not do better than to act as agents for the *Genesee Farmer*. A few days spent in soliciting subscriptions among the neighbors would secure one of our largest Cash Premiums. All that is required is to show them a copy of the paper, and tell them its marvellously low price.

THERE IS NOT A TOWN in the United States or Canada where a good list of subscribers could not be obtained for the *Genesee Farmer*. All that is necessary is for some friend to exhibit a copy of the paper. It is so cheap that every farmer can afford to take it, even though they subscribe to several other papers.

CORRECTION.—In alluding to Mr. PINNEY'S Dwarf Pear orchard, in the October number, the printer made us say that *Louise Bonne de Jersey* trees, seven years from planting produced this season three barrels each; and that they were held at \$6 per barrel. It should be *bushels*, in both cases.

OUR JANUARY PREMIUMS.—We offer \$235 in 21 cash premiums for the twenty-one largest clubs sent us, by the 15th of January. A very small club will secure one. If not, you are sure of a specific premium. Send on the names as fast as you get them.

A LARGE POTATOE.—EMORY J. WOOD, of West Bloomfield, N. Y., raised from one potatoe a bushel of good large potatoes, one of which weighed three pounds and a half. It is of the *Jenny Lind* variety.

MISSING NUMBERS.—If any of our subscribers have failed to receive, or have lost any numbers of the *Farmer* for this year, we will most cheerfully forward them, gratis.

### Read what is said of the Genesee Farmer.

It is filled with deeply interesting, useful, and instructive matter.—*Repository, New London, Conn.*

It is a capital paper for farmers. We don't see how they can do without it.—*Watchman, Monticello, Ky.*

The *Genesee Farmer* is one of the best agricultural periodicals we receive.—*Mining Journal, De Quoin, Ill.*

We think the *Genesee Farmer* the best and cheapest agricultural paper published.—*Tribune, Hornellsville, N. Y.*

The *Genesee Farmer* is one of the oldest and best agricultural periodicals in the country.—*Times, Bloomington, Illinois.*

It is well filled with interesting and useful reading matter for the farmer and lover of agriculture.—*Daily Patriot, Madison, Ill.*

Farmers who want a reliable and instructive paper, can not do better than to subscribe for the *Genesee Farmer*.—*Educational Herald, New York.*

The *Genesee Farmer* is filled with valuable information. It contains the best agricultural articles, and is about the best agricultural monthly published.—*Spy, Columbia, Pa.*

The *Genesee Farmer* for August is a capital and seasonable number of this old favorite. The articles are full of the very marrow of agricultural wisdom and experience.—*Republican, Faribault, Minn.*

The *Genesee Farmer* is always welcomed to our desk with a sincere good will. We have been familiar with it for many years, and rejoice at its widely spread popularity and its usefulness.—*Gazette, Frostburg, Maryland.*

The *Genesee Farmer* looks as plump as a newly cut sheaf of wheat we saw the other day. It is edited with much ability and practical knowledge, thus producing a publication of intrinsic value.—*Star of the North, Bloomsburg, Pennsylvania.*

The *Genesee Farmer* is published at the very low price of fifty cents a year. It is well known to nearly all of our agriculturists, and we can safely recommend it to those who are not acquainted with its merits.—*People's Advocate, York, Pa.*

The *Genesee Farmer* contains nearly everything which the farmer needs to know, being made up of the experience of a large number of the most experienced farmers and fruit-growers in the country.—*Narragansett Weekly, Westerly, R. I.*

The *Genesee Farmer* for this month has been passed in review. It proves a very excellent number of a very excellent journal. We heartily recommend the *Farmer* as the cheapest and best agricultural paper published.—*Civilian, Independence, Iowa.*

The *Genesee Farmer* is worth many times its cost, to every farmer's family in the land. It is emphatically the “paper for the times,” in its information and price. We advise all not acquainted with the *Genesee Farmer* to send for a copy.—*Courier, Alton, Ill.*

Our agricultural column this week is exclusively made up from the *Genesee Farmer*. Any one that owns a farm, or others that desire useful information, would make a good investment by taking the *Farmer*. We write from an acquaintance with it of over twenty years standing.—*Courier, Newburgh, N. Y.*

The ancient visage of this time-honored laborer in the harvest field of agriculture, that for the last thirty years has been peering into the sanctum of every new recruit, smiled complacently in upon us a few days ago. It was with no ordinary degree of pleasure we grasped the hand, and made our bow to age and worth. In the early days of our boyhood, we heard the first note of his bugle blast, and caught the first clash of his steel, as the sturdy blows of his “red right arm” fell upon the shield and the breastplate of ignorance and error. And even now, although having nearly fulfilled the space of time allotted to mortals, and having discharged the great ends of his being, his step betrays no terror, his heart no faintness, and his head no folly. May he live long to extend to his co-laborers a helping hand in their efforts to advance the cause of good husbandry. The numbers are replete with original articles of great interest and value.—*Farm Journal, Richmond, Va.*

## Inquiries and Answers.

**CUTTING BOX.**—(J. B. F.) We have used the "Rochester Premium Cutting Box," manufactured by A. Gordon, of this city, and can confidently recommend it to you, and all others, as the best machine with which we are acquainted. See advertisement in another column.

**GRAVEL HOUSES.**—I wish to inquire, through your excellent paper, concerning gravel houses, and the construction of them. First, are they considered, when well put up, to be a good durable house? Second, what proportion of lime to gravel is used generally? Third, do they require strapping and lathing on the inside of the outside walls, before plastering, or will they be sufficiently dry without? My gravel will come from the lake shore.—**AN OLD SUBSCRIBER, Oakville, C. W.**

**PLASTER FOR TIMOTHY.**—Will some of your correspondents give me their experience in regard to the effect of gypsum on timothy grass land? How much should I sow to the acre; best time and manner of application; &c. My land is high and dry.—**T. S. SHAW.**

**NORMAN HORSE.**—Will some reader of your interesting journal please inform me whether the Norman horse was introduced into the United States earlier than 1839, and by whom?—**E. C. ROMINE, Hunterdon Co., N. J.**

**WHEAT-MIDGE.**—Does the wheat-midge remain in the ground in the larva state through the winter? If so, what degree of cold can it bear without being deprived of life?—**J. M.**

**CHINESE HOGS.**—Will you or some of your correspondents let me know where I can procure some pure bred pigs of the breed known as the Chinese?—**J. S., Rochester, N. Y.**

**DRAINING QUICKSANDS.**—Will some of your correspondents tell me what is the best method of draining lands with a quicksand subsoil?—**CANADA SUBSCRIBER.**

## Notices of Books, Pamphlets, &amp;c.

**THE RIGHT WORD IN THE RIGHT PLACE:** A New Pocket Dictionary and Reference Book; Embracing extensive collections of Synonyms, Technical Terms, Abbreviations, and Foreign Phrases; Chapters on Writing for the Press, Punctuation, and Proof-Reading; and other interesting and valuable information. By the author of "How to Write," &c. New York: FOWLER & WELLS. Price 50 cents.

**GRASSES AND FORAGE PLANTS.** A Practical Treatise, comprising their Natural History; comparative Nutritive Value, etc., etc. By CHARLES L. FLINT, Secretary of the Massachusetts State Board of Agriculture. With one hundred illustrations. Boston: PHILLIPS, SAMSON & Co.

**CHAMBERS' ENCYCLOPEDIA:** A Dictionary of Universal Knowledge for the People, on the basis of the latest edition of the German Conversations Lexicon. Illustrated by Wood Engravings and Maps. Part 7. New York: D. APPLETON & Co. Price 15 cents per number.

For sale by ADAMS & DABNEY, of this city.

**FORTY YEARS IN THE WILDERNESS OF PILLS AND POWDERS:** or The Cogitations and Confessions of an aged Physician. Boston: J. P. JEWETT & Co. New York: C. M. SAXTON & Co. Price \$1.

For sale by E. DARROW & Bro., of this city.

The following books are for sale by STEELE, AVERY, & Co., of this city.

**A HISTORY OF THE FOUR GEORGES**—Kings of England. Containing Personal Incidents of their Lives, Public Events of the Reign, and Biographical Notices of their Chief Ministers, Courtiers, and Favorites. By SAMUEL M. SMUCKER, LL. D., author of "Court and Reign of Catherine 2d," etc., etc. New York: D. APPLETON & Co. Price \$1.25.

**THE PRAIRIE TRAVELER.** A Hand Book for Overland Expeditions, with Maps, Illustrations and Itineraries of the Principal Routes between the Mississippi and the Pacific. By HANDELPH B. MARCY, Captain U. S. Army. New York: HARPER & Bro. Price \$1.

**FISHERS RIVER, NORTH CAROLINA.** Scenes and Characters. By "SKITT," "who was raised thar." Illustrated by JOHN McLELLAN. New York: HARPER & Bro. Price \$1.

**A GOOD FIGHT, AND OTHER TALES.** By CHARLES REAY author of "Love me Little Love me Long," "Peg Woffington," "Cristie Johnstone," etc., etc. With illustrations. New York: HARPER & Bro. Price 75 cents.

**THE VIRGINIANS.** A Tale of the Last Century. By W. J. THACKERAY, author of "The Newcombs," etc. With illustrations by the author. New York: HARPER & Bro. Price \$1.

**WOMEN ARTISTS IN ALL AGES AND COUNTRIES.** I Mrs. ELLET, author of "The Women of the American Revolution," etc. New York: HARPER & Bro. Price \$1.

## REVIEW OF THE MARKETS.

GENESEE FARMER OFFICE,  
ROCHESTER, N. Y., Nov. 18, 1850.

The demand for Flour has been rather active than otherwise during the last four weeks. The arrivals at the sea-board have been on a liberal scale, yet there is little accumulation of stock in first hands. The purchases, beyond those necessary to supply the wants of the local trade, are chiefly of a speculative character. There is comparatively little doing for export, and the Eastern and Provincial demand is less active than it was earlier in the season. Were prices to relax sufficient to encourage it, there would doubtless be considerable inquiry for English account, but there is a feverish sensitiveness manifest in the movements of operators which is calculated to prevent such a state of things a present. A slight advance abroad is immediately followed by an equal, or perhaps larger, advance in this country; thus keeping prices relatively higher here than they are in Europe.

Wheat is held with some firmness and is in some markets proportionably higher than Flour. When such is the case, millers too frequently draw encouragement for present action from their hope for the future; especially if the market be in a tolerably firm, or slightly advancing state. A feeling of confidence in an upward movement, at a period not far remote, is apparent, which the course of events may, or may not, justify. We notice a recent falling off in the receipts of Wheat and Flour at the principal markets in the Western States, which, if continued, would bring an advance on present quotations within the range of probability.

The quantity of new Corn offering at the West is very large thus early in the season. The demand for it is good, but prices are declining. For other kinds of coarse grain the demand is good at fair rates.

The demand for Provisions is, in general, good; and, with a moderate stock, the market is tolerably firm.

There are few good Cattle offered; the supply consisting chiefly of medium and common grades, and some of such a wretched character, and in such poor condition, as to be utterly unfit for the shambles, and scarcely fit for the stock-yard of the farmer. Beeves of good quality command a fair price.

The Wool market is without activity. The demand continues limited on account of the high prices asked, and holders are not disposed to press sales.

## ROCHESTER MARKET.—Nov. 17.

**FLOUR**—Market firm but not active. Superfine \$4.50@5.50; white wheat, extra, \$6@8.25.

**GRAIN**—Wheat is firmly held and millers are not anxious to purchase at extreme rates. White \$1.30@1.35; red \$1.05@1.15. Corn—old, 56¢@58¢; new, in the ear, 31¢. Barley, 65¢. Rye, 70¢. Oats, 35¢@36¢, by weight. Buckwheat, 40¢. White Beans are relatively higher in New York than they are here; those who have any quantity will secure an advantage by consigning them to that market. We quote the price for this market at 65¢@70¢.

**SEEDS**—Clover, \$5.00. Timothy, \$2.50. Flax, \$1.25. **PROVISIONS**—Mess Pork, \$17.00. Hams, 11¢. Shoulders, 9¢. Lard, 13¢. Butter—fresh, 15¢; firkin, 16¢. Cheese, 9¢@10¢. Eggs, 16¢. Chickens, 8¢. Turkeys, 11¢ per lb. Ducks, 44¢ per pair. Potatoes, 31¢@40¢. Apples, 31¢@50¢ per bush. Beef, 4¢@6¢ by the quarter. Mutton, 8¢@4¢ by the carcass. Dressed hogs have declined materially to-day; we quote \$5.50@6.00 per 100 lbs.

**CATTLE MARKET**—Beef Cattle, \$2.00@4.00 live weight. Calves, \$3@5 each. Sheep, \$2.50@3.50 each. Lambs, \$1.25@2.25 each.

**HIDES**—Slaughter, 5½¢@6¢. Calf skins, 10¢ per lb. Sheep Pelts, 75¢@1.25 each.

**HAY**—\$16@22 per ton.



**NEW YORK MARKET.—Nov. 17.**

**LOUR AND MEAL**—Market dull; demand chiefly from the trade with little export inquiry. State superfine, \$4.90@5.15; extra do, \$5@5.15; Western superfine, \$4.95@5.05; extra do, \$5.15@5.30; Ohio round-hoop, \$5.30@5.50. Canada, \$5.2 @ \$6.20 for the range of extras. Southern Flour steady. Timore superfine, \$5.50@5.65; extra do, \$5.75@5.25; Branville, \$5.90@6; Georgetown, \$5.70@5.65; St. Petersburg City, 25@27; Richmond City, \$5.50@5.75; Galego and Huxall, 25. Buckwheat Flour firm at \$2@2.25 per 100 lbs. Rye flour steady at \$3.75@4.45 per bbl., for superfine and extra. A meal active—Jersey, \$4.10; Brandywine, \$4.50@4.60—dull or an extreme price. Puncheons, \$20.50.

**GRAIN**—Wheat dull and in favor of the buyer. Kentucky do, \$1.50; Michigan do, \$1.40; Canada, Chicago and Ohio do, \$1@1.43; Southern do, \$1.35@1.60; Southern red \$1.25@1.40; Milwaukee club, \$1.15@1.18; Chicago spring, \$1.16@1.15. Corn in fair demand—Southern and Jersey oil, \$1@1.2; do, do, 85c@90c. Rye firm at 85c. Barley steady at 75c for extra, and 80c for State. Oats firm and in good demand—New Jersey, Delaware, and Pennsylvania, 85c@42c; Virginia, 38c@40; do, Western, and Canada, 44c@46c. Canada Peas 75c@80c. Hie beans in demand at \$1@1.25 per bush.

**SEEDS**—Clover, 55c@57c per bush. Timothy, \$2.00@2.25 for seed, \$2.30@2.45 for reaped, per bush. Flax, \$1.50 for 25 American. Top do, \$2.50@2.75 per five bush bag.

**PROVISIONS**—Pork firm. Mess, \$15@15.12½; prime, \$10.50@11.50; prime mess, \$15.50@16.50; clear, \$17; dressed hogs, 9c per lb. Beef steady—old country mess, 55¢ new do, 55¢; country prime \$4; new do, \$4.25; Chicago old re-packed, \$3.50; new do, \$4@10; extra mess, \$10.50@11; prime ss and India beef, \$15@24 per tierce. Beef hams dull at \$14.50 for Western, and \$12 for State. Bacon, 83c@9c, nus, dry salted, 9½c; Shoulders, do, 7c; Hams, green, 55c@57c; Shoulders, do, 6½c@6¾c. Lard, 10½c@11c. Butter, 12c@13c; State, 14c@21c; Orange county, 22c@25c.—Case, 8c@11c. Potatoes are dull—Mercers and Carvers, \$1.75; res, \$1.25@1.37½; Peachblows, \$1.12½@1.2; Western Reds, \$2@1.12 per bbl.

**CATTLE MARKET**—Beef Cattle of first quality, 9c@9½c; ditto, 7c@8c; ordinary, 5c@6c; some extra good, 10c. Veal ve, 7c per lb. live weight, for such as are good. Sheep and mbs, \$2@2.50 per head, as to quality. Hogs—corn fed, 5½c@6c; distillery, 5½c@5¾c, per lb. gross.

**WOOL**—Demand limited. State and Western fleeces, 40c@50c common to full blood Saxony; 62½c@65c for sorts.

**PHILADELPHIA MARKET.—Nov. 14.**

**LOUR AND MEAL**—Superfine flour, \$5.25; extra do, \$5.50; fancy do, \$6.25@6.75. Rye flour scarce at \$4.25. Corn \$1, \$3.87½ per bbl.

**GRAIN**—Wheat firm with a good demand. Pennsylvania and Western red, \$1.27@1.28; white, \$1.38@1.40. Rye steady at \$1.60 for Delaware, and 90c for Pennsylvania. Corn steady at 58c 90c for old, and 70c@75c for new. Oats dull—Delaware, 40c@42c; Pennsylvania, 43c@44c.

**SEEDS**—Clover in fair demand at \$5@5.25 for fair to prime quality, and \$4.50@4.75 for inferior. Timothy, \$2.37½@2.50, but little on the market. American Flax Seed, \$1.60 per bush.

**PROVISIONS**—Mess Pork, \$15.50@16. Bacon steady.—ams, plain cured, 11c; fancy do, 13c; Sides, 10½c; Shoulders, 9c; dry salted Sides, 9c; Shoulders, 7c. Lard, 10½c@11c. Hams and tierces, and 12c for kegs on time. Butter, solid packed in barrels and kegs, 11c@3c; roll do, 16c@20c. Cheese, 11½c. Eggs, 15c@20c per doz. Green Apples, \$2.50@4.1. Cranberries scarce at \$15@17 per bbl. Dried Apples, 5½c@6c; inches, 7c@15 per lb. for unpared and pared.

**CATTLE MARKET**—Beef Cattle very dull. First quality, 7.75@8.9; prime, \$8.25@8.50; fair, \$7.25@7.75; ordinary, 5.50@7; common, \$4.5@5; inferior, \$3@4, per 100 lbs. vns, \$25@25.50 per head. Sheep dull at 6c@8c per lb. net. wgs, \$17.50 per 100 lbs. net.

**WOOL**—Stock light. Tub, 44c; full blood, 47c@50c; extra do, 63c@65c per lb.

**BUFFALO MARKET.—Nov. 17.**

**LOUR**—Firm with a fair demand. State extra from Chicago spring Wheat \$4.75; extra Wisconsin, \$5; extra Ohio and Indiana, \$5.2 @ \$5.50; double extras, \$5.75@6; extra State from Milwaukee club Wheat, \$4.90; Canadian extra, \$5.40.

**GRAIN**—Wheat firm with a fair demand. Canadian white, \$1.25; Kentucky do, \$1.40; Milwaukee club, \$1.03@1.05; Ill. oil, red winter No. 2, \$1.05; Chicago spring No. 2, \$1.00. Corn steady at 60c@65c for new. Oats, 37c. Barley, 63c@70c for extra and Canada. Rye, 75c. Canadian Peas, 62½c.

**SEEDS**—Clover 3½; Timothy, \$2.25@2.50.

**PROVISIONS**—Mess Pork, \$15@15.50. Bacon—Shoulders, 5c; Hams, 10c for plain, and 10½c for sugar-cured. Lard dull 11c. Hamb: rgh Cheese, 8c@9c.

**CHICAGO MARKET.—Nov. 16.**

**LOUR**—Spring extra, \$4.50@4.80. Buckwheat flour, \$3.25 or 100 lbs. Platt's patent do, an extra article, \$5 per 100 lbs.

**GRAIN**—Winter Wheat No. 1, red, \$1.05@1.08; No. 2, do, 2c; Spring Wheat No. 1, 90c@91c; No. 2, do, 85c@89c; rejected

do, 82c. Corn—Old No. 1, 67c; No. 2, do, 60c; new, shelled, 44c@50; Hydraulic dried, 67c; rejected, 53c@54; in the ear, 40c@44c. Rye ranges from 60c@65c for No. 1 and No. 2. Barley—No. 1, 58c; No. 2, 50c. Oats—22c in store; 31c f. o. b., and 30½c prime navy. Beans—Inferior, 40c@50c; common to good, 60c@75c; alfalfa, 75c@80c.

**SEEDS**—Clover, \$4.50; Timothy, \$2.10; Hungarian, 72½c@75c per bush.

**PROVISIONS**—Mess Pork, \$14@15. Bacon Hams, 10c@11c. Lard, 11c@12c. Butter active at 17c@18½c for common; 12c@12½c for good; 14c@14½c for extra; 15c@16c for choice.—Cheese, at 9c@10c for W. R.; 10½c@11c for Hanburg. Eggs, 15c@16c. Potatoes, 85c@9c; sweet do, 5c@7c per bush. Apples, \$2.37½@2.50 for good winter, and \$2.12½@2.25 for inferior per bbl. Dried Apples, 65c@7c. Dried Peaches, 2c@10c for unpared, and 15c for pared, per lb. Chickens, \$1.25@1.37 per doz.

**CATTLE MARKET**—Beef Cattle, \$2@2.25 per cwt. according to quality. Hogs, \$4.25@4.50 per cwt. Tallow—City rendered, 9½c@10c; country, 10c@10½c.

**HIDES**—Green, 5½c@6c; green salted, 6½c@7c; dry salted, 10c@12c; flint, 13@14c.

**HAY**—Prairie, new loose, \$5.50@6; old pressed do, 4; loose timothy, \$2@1.19; pressed do, \$3 per ton.

**WOOL**—Fleeces, common to full-blood, 30c@48c; pulled, 20c@42c per lb.

**CINCINNATI MARKET.—Nov 16**

**LOUR**—Market firm with a moderate demand. Superfine, \$4.70@4.85; extra, @ \$4.90@5.25. Buckwheat flour, \$2.50@2.60 per cwt.

**GRAIN**—Wheat firm with liberal receipts. White, \$1.15@1.18; red, \$1.05@1.10. Corn in active demand at 44c@45c, with large receipts. Rye steady at 45c. Oats, 44c with a fair supply and demand. Beans, \$1@1.25.

**SEEDS**—Clover in moderate demand at \$1.50 for old, and \$1.75 for new. Timothy nominal at \$2.25@2.50. Flax, \$1.10.

**PROVISIONS**—Mess Pork, \$13.50@13.75. Bacon—Sides, 9½c; Shoulders, 7½c. Green Shoulders, 4½c; Sides, 6½c; Hams, 7½c. Lard, 10c. Butter—Roll, 15c@17c; W. R., 15c@20c; summer packed do, 14c@16c; common, 10c@12c. Cheese firm at 9c@9½c for shipping lots; 11c for English dairy, and 12c for Durham farm. Eggs, 13c per doz. Potatoes dull at 35c for common, and 40c@45c for good and prime Neshannocks. Green Apples dull at \$1.25@2.25 per bbl.; dried do, \$1.25@1.40 per bush. Cranberries in good demand at \$13@14 per bbl.

**CATTLE MARKET**—Beef Cattle in good supply and prices steady at \$1.50@1.8 per 100 lbs. gross for common to prime.—Sheep, \$1.50@1.75 each. Lambs, \$1.50@2 each. Hogs dull at \$5.75 per cwt.

**HIDES**—Dull. Flint, 11c@15c; dry salted, 12c@14c; green salted, 6½c@7c; green, 6c. Tallow, 10c@10½c.

**HAY**—Steady with a fair supply at \$16@16.50 per ton.

**TORONTO MARKET.—Nov. 17.**

**LOUR**—Market firm with a limited supply. Superfine, \$4.55@4.65; fancy, \$5@5.10; extra, \$5.25@5.50; double extra, \$5.75@6; for established brands higher prices are asked.

**GRAIN**—Fall Wheat, inferior to common, \$1.15@1.22; prime, \$1.2@1.28; spring wheat, 90c@1.03. Barley, 60c@65c. Rye, 60c@65c. Oats, 38c@40c. Peas, 55c@60c.

**PROVISIONS**—Butter—supply of fresh good at 17c@22c; No. 1 tub, 17c@18c; No. 2, do, 13c@15c per lb. Eggs scarce at 15c per doz. Cheese, 9c@11c per lb. Apples, \$2@2.50 per bbl. Potatoes, 37c@45c per bush. Salt, \$1.13@1.16 per bbl.

**CATTLE**—Beeves in full supply and moderate demand. First class, \$4@4.50; second do, \$3@3.50 per 100 lbs. Calves, \$5@6 each. Sheep in good supply at \$3@4 each. Lambs, \$1.75@2.25 each. Dressed hogs, \$5@5.50 per 100 lbs.

**POULTRY**—Turkeys, 4c@7c@1 each. Geese, 3c@4c each. Ducks, 40c@50 per pair. Chickens, 30c@40c per pair.

**HIDES**—Slaughter, 5c@6c per lb. Sheep skins, 7c@11c each for fresh, and 6c@7c each from farmers. Tallow, 8c per lb.

**HAY**—Supply limited; \$20@30 per ton. Straw—very scarce at \$11@14 per ton.

**LIVERPOOL MARKET.—Nov 4.**

**LOUR AND MEAL**—Western canal Flour, \$5.04@5.52; Philadelphia, Baltimore, and Ohio, \$5.52@6.24; Canadian, \$5.76@6.24; extra qualities, \$6.45@6.72; sour, \$4.80@5.28. Corn Meal, \$4.32@4.56.

**GRAIN**—American white wheat, \$1.44@1.58; red do, \$1.30@1.40; Canadian white, \$1.37@1.51; do, red, \$1.26@1.37. Indian corn—white, \$1.05@1.11; yellow, 57c@90c; mixed, 89c@90c. All per bush, of 60 lbs.

**WOOL**—Market quiet but firm. Domestic fleeces, 12½c@40c; Colonial, 16c@72c; Saxony, 4c@14.05 per lb.

**LONDON MARKET.—Nov. 4.**

**LOUR**—American sour, \$5.2@6.24; sweet, —. GR \*IN—Wheat—American white, \$1.26@1.44; do red, \$1.25@1.38. Indian corn—white, 90c@98c; yellow, 87c@93c, per 60 lbs.

**WOOL**—Domestic fleeces, 82c@89c; sorts, 30c@48c per lb.





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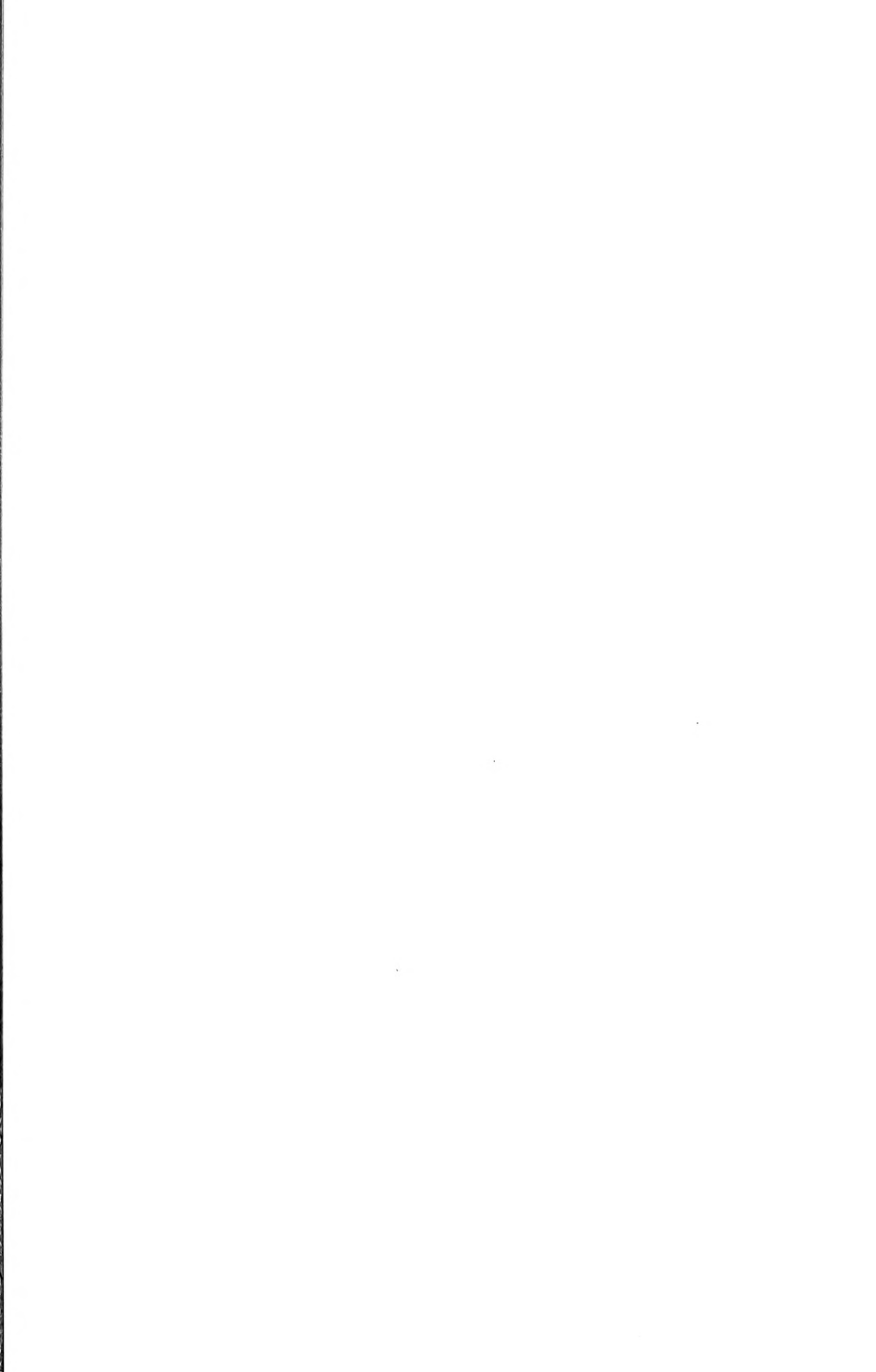
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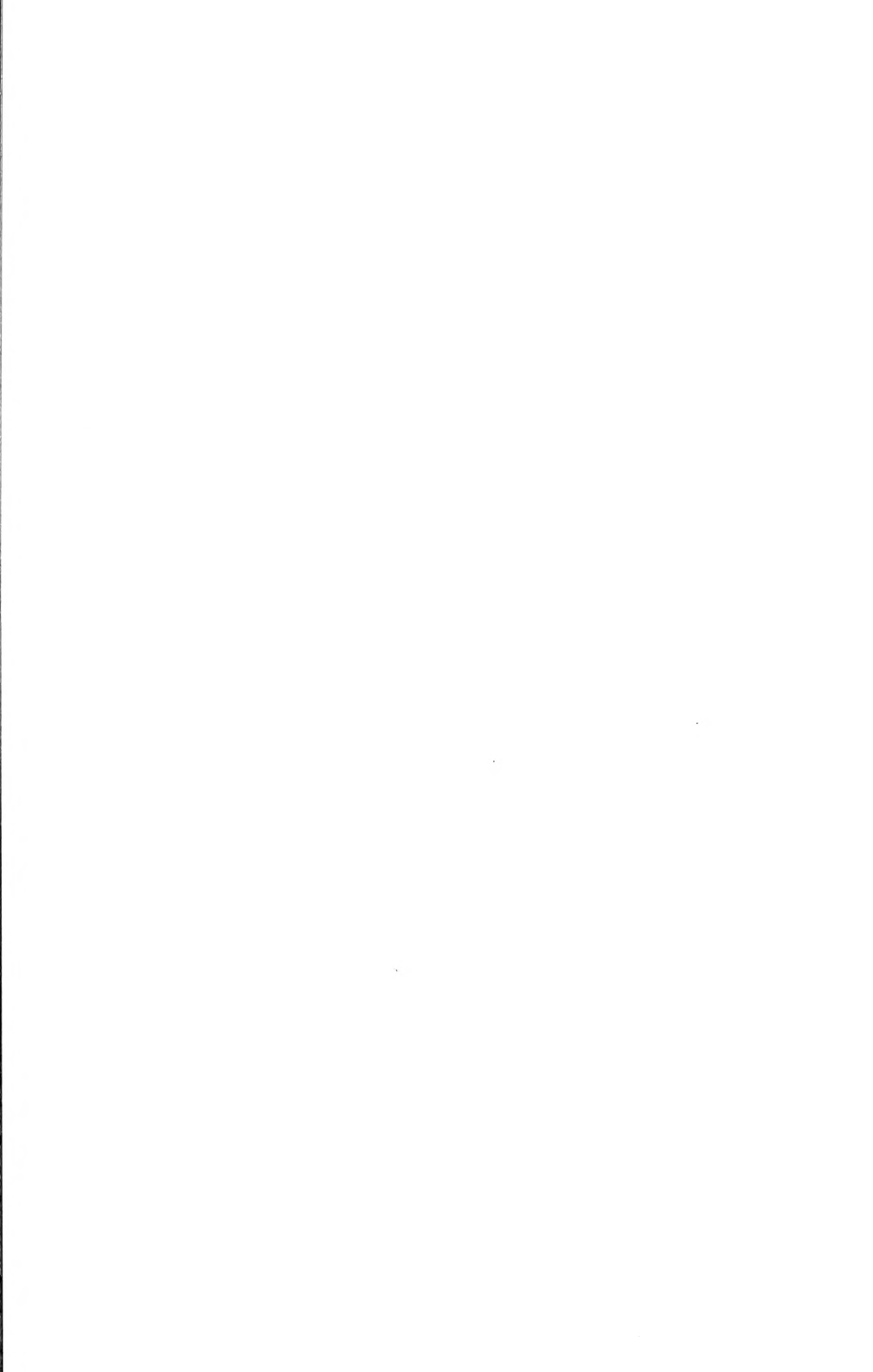
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