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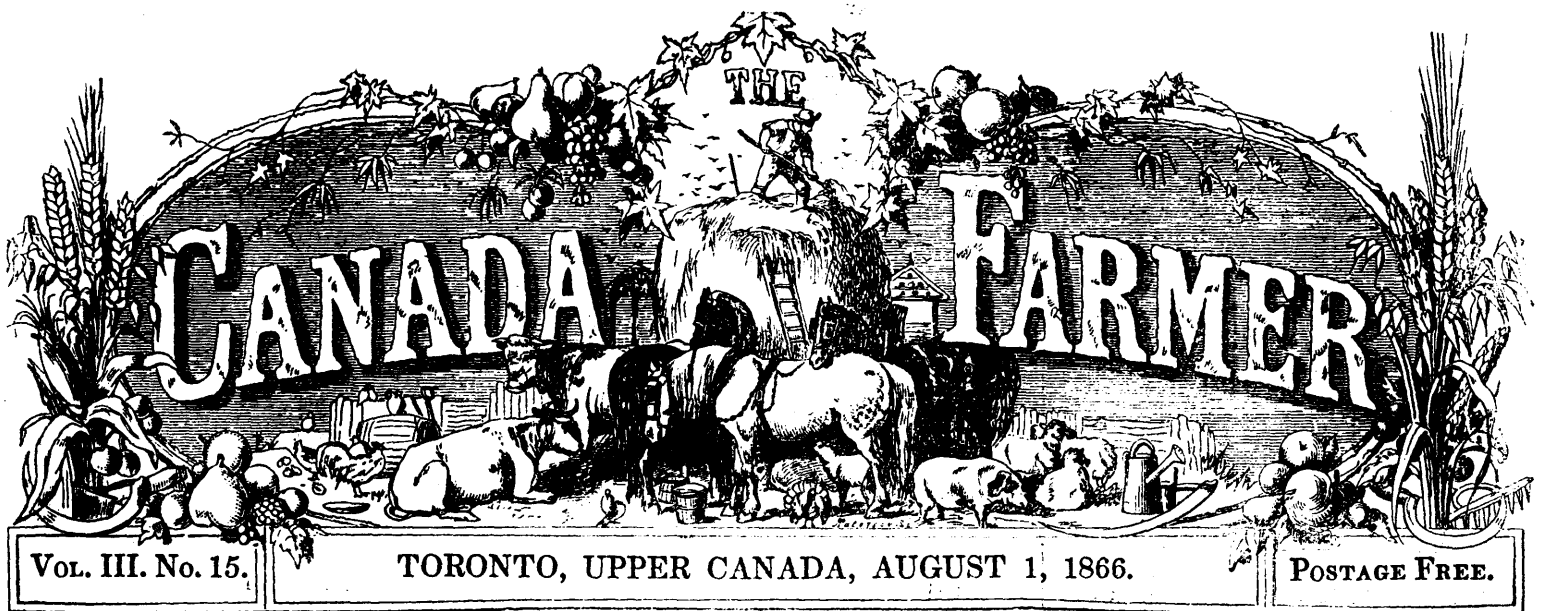
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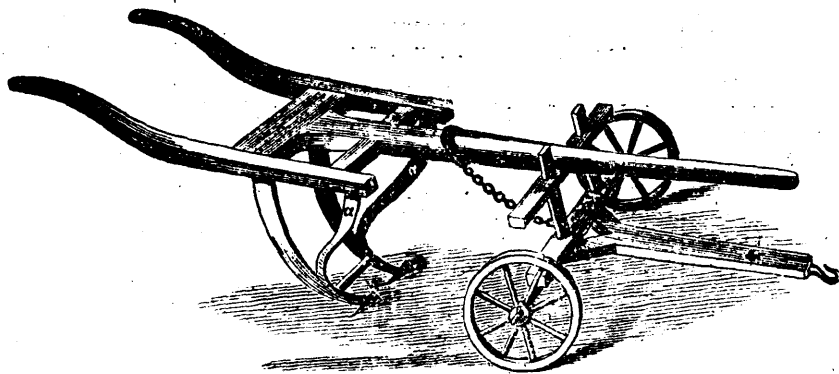
## The Field.

### The Silesian System of Harvesting Mangolds.

A RECENT issue of the *Mark Lane Express* contains the appended particulars of the method pursued in Silesia of harvesting the mangold crop. We have transferred the illustration from the same source:—

"In Silesia, where the cultivation of mangolds is carried on to a large extent, it is customary to commence harvesting the crop about the month of October, as soon as the leaves of the plants have begun to assume a yellowish tinge. For the purpose of extracting the roots, the above instrument is universally used. As may be seen from the engraving, it is of the simplest construction. It consists of two shares, similar to those of a plough, but possessing a length of 15 to 20 inches. These shares are situated at a distance of 15 inches apart at the top, and gradually near each other towards the points, where the distance between the two is not more than 6 inches. The shares are connected at the bottom by means of a perfectly round iron bar, and in order to ensure the requisite firmness (the resistance to be met with being considerable), they are further connected with the body of the instrument through two flat pieces of iron (a and a on the figure.) As fore-wheels, those of a common plough may be used. This instrument is driven down the row of plants, and in such a manner that each root comes between the two shares of the plough. The soil around the roots being thus loosened, and the roots being pressed partly upwards by means of the aforementioned round iron bar, the plants can now be removed with the greatest ease by gangs of women or children. With this instrument one man with a pair of oxen is able to plough up 3 Prussian morgen (equal to nearly two acres) of sugar-beets per day; and 6 or 8 women following him can pull, clean, and cut off the leaves, and place in the buries about one morgen. The plants are not in the slightest degree injured by this instrument (as is often the case when forks, &c., are used). Besides this, the saving of labour must be borne in mind, which is of the greatest importance at the present time, when the cost of labour is continually increasing. Another advantage resulting from the application of this instrument is, that it obviates the necessity of ploughing for winter corn after wurzel, the land having already been sufficiently broken up by means of the two shares, and only requiring harrowing. In Silesia the land intended for winter

corn after wurzel is exclusively prepared by means of the harrow; and the rye-wheat there stands as well after wurzel as after any other crop. An additional reason for this, however, is that the wurzel crop is always strongly manured. The preservation of the wurzel crop there is nearly the same as in other parts of Germany. If there is sufficient time to spare, the roots are carted to one end of the field, and there placed in long buries about 8 feet broad and 5 feet high; they are then covered with straw, and sufficient earth to prevent the straw being blown away. At the commencement of the cold season another layer of earth of several inches in thickness is spread over the whole bury, with the exception of the comb, which remains open. In order to complete the covering of the buries, a ditch of about 1½ feet in depth is dug round each mound, and the soil here excavated provides the necessary layer of earth. Boards are placed along the top of the bury during this operation, in order to prevent the filling up of the comb. After the roots have been left in this state for about three weeks, they are again covered with a layer of earth of about 1 foot in thickness. At the top of the bury wisps of straw are then inserted at from intervals of



from 5 to 6 feet. If there is a scarcity of working cattle during the harvest, the following method of preservation is observed: The wurzels, after having been cleared by women, are thrown into large baskets, and then placed in small heaps in different parts of the field; they are then covered with earth in a perfectly air-tight manner. Many farmers in the neighbourhood maintain that this method is preferable to the first, but it has, at any rate, the disadvantages, first, of preventing the carting off the field in wet weather; and, second, the roots become very dirty through the contact with the soil. For these reasons the first method is the one more generally adopted. The leaves of the wurzel are used as fodder, either in a green state or else dried or soured. The latter mode of preparation is the one most adopted. For this purpose all large farms are provided with pits for the preparation of this food. In these pits layers of chaff

and leaves are alternately placed, and sometimes a small amount of salt is added. During the laying of the leaves they must be trodden down tightly. These pits must be provided with a shelving roof, in order to prevent the penetration of moisture. The last layer of leaves in the pit is covered with a one-inch layer of soil, thus preventing the circulation of air."

We have never had an opportunity of seeing the implement here figured; but, judging from the description, we are of opinion that such a contrivance might also be applied with success to the harvesting of turnips.

### Familiar Talks on Agricultural Principles.

#### COMPOST HEAPS.

FARM yard dung may be preserved from loss by the action of the sun and air, and made to go a great deal farther, by composting it; that is, by mixing it with a variety of substances that will absorb liquid manure and combine with that which is solid. Or, if it is preferred to keep the stable manure by itself, an additional source of supply may be provided by the compost-heap, into which every description of vegetable refuse should be gathered.

Most Canadian farms have some low place upon them where black swamp muck is to be found. Many farms have acres of swamp upon them where this material can be had. These parts of a farm are generally looked upon as worthless, or nearly so, but they are in reality storehouses of wealth. There is nothing better for mixing with stable manure, or any matter capable of decomposing, than this black muck. Indeed so great is the value of this material that a farm is hardly complete without a bit of swamp or a muck-hole from whence it can be gathered. Mud from the bottom of lakes, ponds, or pools, is useful for the same purpose, and the longer it has been lying the richer it is in fertilizing matter. Many animal and vegetable substances will have collected and been decomposed in it. The scourings and washings of hill sides and roads, which find their way into bodies of still water, form rich deposits which it will pay to cart out, if the water can be let off so as to scrape the bottom.

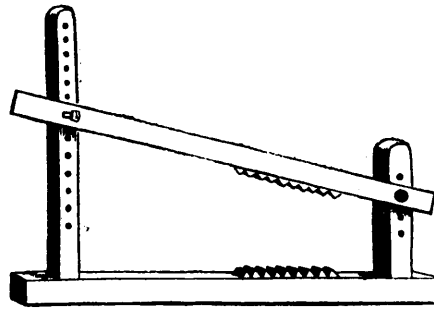
A compost heap is a sort of *omnium-gatherum* into which all manner of substances capable of rotting are collected, and from time to time intimately mixed until they form one fertilizing mass. Vegetable refuse, weeds, leaves, turnip-tops, road-scrappings, old mortar, turf, sods, kitchen waste, and the like, all

and their appropriate place in the compost-heap, and should be systematically conveyed there. Weeds when cut up with the hoe, or mowed by the scythe, are usually left to decay on the ground. This is very wasteful. They should be composted. Couch grass and thistles, two very bad weeds are rich in fertilizing matter, which ought not to be lost. In making a compost heap, the earthy and vegetable material of which it is composed should be in about equal proportions by bulk. If swamp muck or the like is not to be readily had, good loam will answer the purpose. Loam is capable of absorbing a large amount of rich fertilizing substance. The vegetable and earthy material having been mixed, the heap should be well watered with liquid manure. The urine from the horse and cow stables may be saved for this purpose. Chamber-lye should also be turned to the same useful account. After being well mixed, it is well to make the compost into long heaps about 3 feet high and 4 feet wide. They should be moistened from time to time with liquid manure of some kind. Of course to preserve the heap as rich as possible, it is best to keep it under a roof, but if this is not done, the outside of it must be protected with loam three or four inches in thickness.

A good compost for any common crop may be made in the proportions of one load of barn yard manure with two or three of muck, swamp mud, or loam, and ashes or potash. The following mixture has been used to advantage by a careful practical farmer: farm-yard manure 25 bushels, an equal quantity of muck or mud, and six bushels of leached ashes, or instead of the ashes, one bushel of lime slaked with saltwater. Thirty bushels of swamp muck and one bushel of guano thoroughly mixed, has been found to make an excellent compost. The same quantity of muck with two bushels of bones, also forms a valuable compost. Another mode is as follows: dig peat or swamp mud in the fall of the year. Next spring, mix 8 bushels of ashes with every cord; or with every cord, 20 pounds of soda ash, or 30 of potash, dissolved and poured carefully on the piles. Those who have an ashery within easy distance, should by all means avail themselves of the opportunity thus afforded, of enriching their land. Leached ashes used alone, or mixed with swamp muck, or used in the compost heap, are of more value and utility than most people imagine. Many instances have been reported of the beneficial effect of leached ashes applied by themselves; and, mixed with muck or other fertilizers, their influence is often far more beneficial. Yet huge unsightly piles of this valuable material disfigure the country, when it would be a relief to the ashery owners, and a source of incalculable profit to farmers were they spread on the land. The accumulations of the privy should also be carefully saved. Dry loam thrown from time to time into the receptacle, acts both as an absorbent and a deodorizer. Not only will dry earth prevent unpleasant odours arising from this material, but plaster of paris, copperas, Glauber's salt, sulphuric acid, Epsom salts, chloride of manganese, sulphate and chloride of zinc, and chloride of lime, all cheap substances and easily procured, will have the same effect. Thus the chief objection to disturbing and using this richest of all fertilizers is removed. The Japanese depend almost wholly upon the human animal for their supplies of manure, and there are no people under the sun who succeed in raising such crops as they do from small patches of land. Their little holding are worked up to the highest pitch of productiveness, mainly if not wholly by the use of a substance which more enlightened nations let go to waste, and allow to poison the air, and pollute the streams. This material well mixed with loam or plaster, is an important addition to the compost-heap.

Considerations of health as well as economy should induce the farmer carefully to scrape up all the decaying matter upon his premises, and turn it into manure. The gases that furnish food to plants are injurious and even fatal to man. Sulphuretted hydrogen and carbonic acid gas for example, are very noxious. They are generated in drains and sink-holes, in heaps of dirt, in damp neglected cellars, in ditches, muddy puddles, swamps, and all undrained places where stagnant water collects. Their presence is indicated by the fulness of the air. Whatever is offensive to the sense of smell is more or

less injurious to health, and where bad odours prevail, there is liability to disease. Hence the farmer who looks everywhere for manure, and collects it carefully from all places where filth is apt to accumulate, is not only enriching his fields, but taking measures to protect his health and that of his family. The sweepings of rooms, scrapings of cellars, dirt that has been lying for a long time under barns and the buildings, the contents of drains, cess-pools, ditches, bogs, dirty ponds, and swamps, are all suitable and valuable materials for the compost-heap. Collected together, commingled, and covered with a coating of loam or clay, they not only become harmless but useful. A farmer's premises cannot be too carefully kept clean, especially in the vicinity of the well whence the family obtain their drinking-water. The compost heap should always be made at a distance from the well, and it is a good plan to have under and around every such heap, abundance of clay or loam to absorb all the drainage and prevent its sinking into the earth.



Post or Rail Clamp.

DIFFICULTY is often experienced in firmly holding posts, or rails, or steaks when sharpening, hewing, or otherwise working them. A simple, cheap, but effective contrivance is herewith shown, designed to hold steaks or posts firmly. Any farmer, with a few tools, can make one in a couple of hours. The bed-piece and lever should be from eight to ten feet long; the former may be of any convenient size, but the lever should be of tough wood, and small enough to allow it to spring a little when brought down on the timber. A piece of iron ten inches long, with teeth cut in it, should be fastened to the bed-piece, and a similar one to the lever, as shown in the engraving.—*R. N. Yorker.*

### Memoranda on Land Drainage.

1. In the first place arrange the whole plan for the whole estate before commencing a single field. Do not fritter away your means in laying one field after another dry on plans proper enough for each, but not well fitted to one another. This is especially good advice where a whole estate, comprising several farms, is taken in hand for improvement. The selection of an outfall, and the fitting it for its purpose, the removal of spring water, the order in which the work shall be done, which is determined by two considerations, viz.: 1st, the necessity of working from the final outfall upwards; and 2nd, the possibility that water removed from one part may lay dry another; so that here, as opposed to the other consideration, the necessity may arise, or rather the propriety may be indicated, of draining a higher field first of that water which is thus hindered from re-appearing below—all these are, to use the words of a politician, not local but imperial questions needing attention in the first place. The arrangement of the plan for the whole estate should, in fact, be attended to before any of the work is commenced.

2. Next, get a permanent and sufficiently deep outfall, to allow, if possible, an easy fall from 4 feet below the lowest part of the land.

3. Remove all spring-water—tap all porous and water-logged beds—and in general provide, in the first place, for the removal of all the water which comes upon the land, or any part of it, otherwise than directly from the clouds. To this end straighten all water-courses, leaving, however, as few open ditches as possible.

4. Lay drains in all habitual water-courses; humour and attend to the habits where the water of

the estate has acquired, if you mean to obtain an immediate result. Let this, in the case of Grass lands with deep ridges and deep intervening furrows, go the length of inducing you to put drains in the furrows, however they may lead you, rather than up and down the slope in straight and parallel lines, with uniform intervals, disregarding the old ridge and furrow arrangement.

5. When all this has been done, then begin the drainage of the estate—field by field—the lowest first, and proceeding from the lowest part of each to the upper part. Dig a main drain with sufficient fall along the foot of the lowest field first, about 8 yards or thereabout from the hedge, and 4 feet 6 inches deep or thereabout, i.e., somewhat deeper than the drains which run into it, and wide enough in the bottom to take a 3 or 4-inch pipe—one large enough, at any rate to take all the water which is likely to run into it.

6. Dig trial holes here and there across the face of the slope 4 feet deep, and try the effect of a single narrow drain, 4 feet deep, taken right up the slope in their midst; and learn from the distance at which this minor drain will empty these holes the intervals between your drains, which in each field you will adopt.

7. Your minor drains should be 4 feet deep, both for the sake of their permanence and efficiency, and for the sake of the greater quantity of earth per acre which will thus be fertilized for the use of plants. They must take a two-inch pipe up to near the top of each; a one-inch pipe will suffice to the upper end, where less water runs. They will be from 7 to 8 yards apart in homogenous clays—10 to 12 yards apart in freer and more open soils; and any greater distance in rocky or gravelly sub-soils, which are unable to discharge their water naturally, but which a single deep drain will often lay dry for acres by the artificial outlet thus provided.

8. As to the way in which, when the method which any field requires has been determined on, the work is actually set out; it may suffice to mention that the place of each drain right down the slope should be pegged out, and (especially in the case of Grass lands) the line itself may then be opened up by the plough, which will, with horse labour, thus take out to its full width the first 6 or 8 inches of the depth. A working man of ordinary size can easily stand and work in a drain 3 feet deep, if it be a foot to 13 inches wide at top. He stands in such a drain, and takes out the remaining foot in depth, making a 4-foot drain without difficulty. In the case of a draining match held some years ago before the Hertfordshire Agricultural Society, there were 17 sets of men at work, and the prizes went for drains 1. inches and 1 1/2 inches wide at the top respectively. One drain was opened 4 feet deep, with only a 9-inch opening at top.

9. As to the cost of work, earth capable of being lifted in masses by the grafting tool can be cut into barrows for 2d. per cubic yard; and the difficulty of working in a narrow drain adds only this much to the cost, that the labour of cutting and lifting earth in making drains varies from only 2 1/2d. to 2 3/4d. per cubic yard. A 4-foot drain thus costs from 6d. to 8d. per rod for cutting it.

10. Let us here enumerate the items of cost per acre. If drains be 5 1/2 yards apart, 880 yards are needed per acre; if 8 yards apart, 605 yards per acre are needed; if 11 yards apart, 440 yards per acre will be required. If the mere cutting be 6d., the cost of opening the drains will be 4l. 2l. 15s., and 2l. per acre; if it be 8d. per rod, the cost will be 5l. 6s. 8d. 3l. 13s. 4d., and 2l. 13s. 4d. per acre respectively. If the tiles used be 2-inch pipes, at 20s. per 1000, they will cost 50s., 36s., and 25s., per acre in these several cases. If collars be needed to connect the tiles, you must add one-half more to their account. Add some 5s. an acre for superintendence, and 1d. per perch for filling in the earth after laying the pipes; and you have as the cost of drainage 10l. to 8l. per acre, according to the quality of the work in near drainage, and 4l. 10s to 6l. per acre, according to the character of the work in the wider drainage. The average cost under ordinary circumstances, including the extra cost of mains and outfalls, may be put at 5l. per imperial acre. There cannot be a doubt that, thus add from 8 to 10 per cent. to the cost of the estate, they often result in an increase of 30 to 50 per cent. in its value. *J. C. M. in Agricultural Gazette.*

A NEW STUMP MACHINE.—A correspondent of the *Rural Register* states that Mr. Jno. Barnes of Baltimore, removed a troublesome stump from near his house, in the following manner:—"Last fall, with an inch auger, he bored a hole in the centre of the stump 10 inches deep, and into it put about half a pound of oil of vitrol, and corked the hole up tight. This spring the whole stump and roots, extending through all their ramifications, were so rotten that they were easily eradicated." Any one having faith in this stump extractor, can try it at small expense.

## The Real Benefit of Machinery.

Those who depict so eloquently the pleasures of modern farming by machinery, draw more on their imagination than their experience. I have tried it, and while I do not despair, I am often discouraged. I have a machine with which I can, and do, turn the grindstone, cut fodder, thrash, grind the grain, drive the cider mill, saw wood in the log with a drag saw, or cord wood with a circular saw. This it will do, and do well, but oh, the care of keeping all these things in order and getting them to work well. I have a potato planter, that at one operation marks out the rows, cuts the potatoes, drops the seeds, covers them up, and rolls the ground. Also one that drills twelve acres of corn and beans in a day, and does the work well. We have cultivators that leave very little to be done with hand-hoes. We have mowing machines and reapers that leave little to be desired in this direction. The tedding machine shakes out the hay as well as it can be done by hand, and five times as fast, the wooden revolving rake pulls it into wind-rows, a pitching machine attached to the back end of a waggon will, carry the hay on to the load, and a steel toothed sulky rake makes all clean. Then at the barn we unload with a horse fork, and the farmer can sit in the shade smoking the pipe of contentment as he witnesses the operation. Then we have a machine for milking cows, and another to work the butter, while, if you make cheese, the American vats and presses make the labour mere child's play, compared with the old Cheshire system. I have not tried these last named machines, but I have little doubt that they work as well as some of the others I have named. The grain binder, too, I have faith enough to believe will soon be attached to every reaper, and then with a steam plough and a good potato digger, won't farmers have an easy time? Not a bit of it. If these things would run themselves; if they never got out of repair; if they had no disposition to lie round loose, but would put themselves up, then indeed we should be "gentlemen of leisure." But this will never be. We can change our work, but we can never get rid of it. If we do not work with our muscles, we must with our brains. And the encouraging feature of this age of invention is not that these "labour saving machines do the work so much cheaper, as that they change the character of the labour required in agriculture. They lessen back-breaking drudgery, and increase mental activity. A farmer who uses a good deal of machinery cannot be dull and stupid. It will make a man of him. I expect great things from the young farmers of America. There is everything to encourage them: soil, climate, social position, political influence. The destiny of the country is in their hands. But they must not expect to live lives of ease and luxury. Brains rather than muscles will be required in the new condition of our agriculture. Machinery will stimulate mental activity, and encourage the growth of that rare grace, patience."—Harris, in *Am. Agriculturist*.

## Smut in Wheat.

The prevailing opinion among European writers is, that smut in wheat is caused by an insect—an eel-like worm—which is said to be in the seed-wheat when sown, and by the moisture communicated to the seed in the earth the insect is enabled to burst the walls of its prison, and, escaping, rises to the surface and secures a lodgment between the leaves of the growing plant, near the centre—as the grain where it begins to develop. It then works its way to the head of the growing wheat and makes its entrance into the embryo grain, which destroys the natural development of the wheat and causes the diseased transformation which we call smut.

In the Ohio agricultural report for 1857, the able and efficient secretary, J. H. Clippart, furnished an article with several illustrations, giving the natural history of the insect and its effect upon the wheat plant. The facts given were chiefly derived from the observations of British and continental European writers, and it may be considered presumptive in us to attempt to controvert such distinguished authority. But we will, nevertheless, venture the opinion that the worms found in the diseased grains are rather the effect than the cause of the disease. All diseased bodies, whether animal or vegetable, are subject to peculiar kinds of parasites. The diseased state of the subject furnishes the requisite conditions for the propagation and development of the insect. We know this to be the case in thousands of instances, and judging from analogy it may be so in the case under consideration. The insect is denominated the *Anguillula Fritica*.

In the *Journal de Agriculture Pratique*, M. Montagne, who draws his information from a French naturalist, who has given the subject much attention,

gives the following as the means most efficient to prevent its increase. It matters less whether the insect is the cause or the effect of the disease provided the remedy is effectual.

The author, as a substitute for lime as usually applied, which he says has no good effect upon the living insect, recommends acidulated water, composed of one part sulphuric acid to a hundred and fifty parts of water, in which the wheat is to be steeped twenty-four hours, this he asserts will effectually destroy all the *anguillules* contained in the grain. This process of preservation is neither expensive nor difficult to carry out, and that the germinating properties of the grain are in no way injured by it.

It is also recommended that the screenings from diseased grain be taken care of so as not to find their way back to the fields in the manure or otherwise. It should either be burned, or, if cast to the fowls or other farm stock, it should first be submitted to a temperature sufficient to destroy the life of the insects.

We throw out these hints for what they are worth, hoping that they may lead to such observations as may furnish additional light upon the subject.—*Colman's Rural World*.

## Helping the Soil.

THE good farmer does this. Nature does not always make a perfect soil—indeed but seldom. Then the farmer's aid comes in excellently. He is supposed to be a man of understanding; if not, he had better be employed in something that he has capacity for. The means to help a soil are not scant. What ground generally lacks is manure. Manure is the best one ingredient that can be applied, as it contains the principles of many others. It moistens soil; it mellowed it; it drains it; it guards it against frost and sun. It is for this reason that so much manure is used, and, comparatively little else. People will do without a sub-soil plough, without ditching, without a mowing machine, without even a horse rake; but they use manure, more or less. It is well for the land that this is so. Nature has made some soils too wet for farming purposes—though to meet her end they were properly made. The farmer need not be told that, to help this soil, he must drain it. He then gets the underdeveloped richness. Pulverizing it and stirring it deeply, so that the heat and air can get down, is another great thing. These are the main things—simple, yet how little done.

Nature gives you the soil; you help her, and she helps you in return—helps you while you are doing it. She keeps your ground moist when you mellow it; and she lets the air pass into it with its fertility which she took from negligent barn-yards—and this fertility she leaves with the soil—so that the farmer and nature are helping each other. Thus our farms are improved. How are they deteriorated? By just the opposite course—by neglect. The more we do for our farms, the more nature will aid us; and thus the better will be our land. The truth is, we are only helping nature at the best, and she pays us for what we do for her: the land is still hers: she forever holds the title deed.—*Colman's Rural World*.

RAISING POTATOES UNDER STRAW.—"On a recent trip in the St. Clair County, Ill.," says friend Colman of the *Rural World and Valley Farmer*, "we saw hundreds of acres of land covered with straw. The ground had been ploughed and harrowed and marked off, and potatoes dropped, and then the whole surface covered about six inches deep with straw. The potatoes have no further attention till digging time, when two or three hundred bushels per acre are obtained. The straw keeps the weeds down, and the soil cool and moist. The straw is raked away in autumn, and there lie the potatoes white and clean. The straw potatoes bring the highest price in market."

SOURCES OF FARM MANURE.—W. H. White, of South Windsor, Conn., writing to the *Boston Cultivator* on the resources a farmer has from which to draw fertilizers for his land asks: "Does the reader make the most of his resources? Is there nothing left that can be converted into fertilizing material. How is it with the hog-pen? Is that well supplied with good material to absorb the liquid as well as the ammonia? A free supply will tend to keep the hogs clean and furnish a quantity of manure. Then there is a privy, which is too frequently allowed to waste its ammonia, instead of absorbents supplied to fix it. A tight vault, into which dry muck, plaster, loam, &c., may be introduced and mixed, will supply several loads of poudrette, superior to what the market affords, with little labour. The hen-roost will supply several barrels of good guano, the quality of which there is no question, when home-manufactured, by supply of dry loam, plaster, &c., with frequent overhauling."

## Stock Department.

### Summer Management of Sheep.

SHEEP are very liable to fly-blow during the showery and hot weather. They should, therefore, be carefully examined morning and evening, and any sheep that appears to be "struck" should be caught and examined. If maggots are developed, they should be scrupulously removed, and the part dressed with a lotion gently rubbed into the roots of the wool. By dissolving two ounces of corrosive sublimate in a quart of water, a very useful and appropriate lotion for the purpose is obtained.

Sheep are also much disturbed and annoyed by flies attacking their heads. If the skin is broken, caps made of calico and dressed with pitch or sweet oil and white hellebore should be put on the head. Leicester's—more especially the young rams—are subject to the attacks of these industrious little pests. A temporary shed erected in the field not only protects them from the glare and heat of the sun, but also in a great degree mitigates the attacks of flies.

Sheep that were not dipped at the time they were clipped, should now be bathed in a liquid preparation. Unless this essential precaution is observed they will be infested with skin parasites. Lambs should be similarly treated. Unless they have been well cared for, they are probably now swarming with ticks.

There are various specifics advertised for the destruction of sheep parasites. We believe none to be better than the preparation advertised in our columns by Messrs Hugh Miller & Co., Chemists, of this city. In preparing the bath, the careful stockmaster will study and minutely follow the printed directions that accompany every package. After the sheep are bathed, they should be allowed to stand in an open yard or other enclosure, free of herbage of any kind, to allow the liquid,—which is necessarily poisonous—to drip from their fleeces. We have known in our experience, several instances where numbers of sheep have been poisoned from neglecting this simple precaution. No branch of farming pays better than sheep husbandry; but in order to obtain the maximum profit, good feeding and careful management are essentially necessary.

### Show-Yard Abuses.

We extract from a recent issue of *The Farmer* the following practical suggestions on this important subject. They will amply repay an attentive perusal:—

"Of abuses, the most obvious is the overfeeding of breeding stock intended for exhibition; and while its immediate effects are open to every observer, of its ultimate results we seldom hear much. Many a fine heifer, however, has foundered on her first calf, simply because she had been the fortunate winner in her section at previous Royal Shows. Victory on such terms is dearly bought; and it has often occurred to us that our congratulations to the owner should be deferred until it is certain that his winning heifer has successfully passed the ordeal of "qualification." Then, indeed, congratulations would be well timed—in a double sense, too, considering the risk that had been run; whereas these are often premature when offered as the animal passes out of the ring bearing the tokens of the judges' approval.

"Nor is the baneful practice of over-feeding confined to the female classes of our Show stock, or even to cattle. Bulls, sheep, swine, and even horses, are fed to such a degree that the animals are not unfrequently put out of shape altogether; and instead of being fit to produce their kinds, they are forced into mere wadding monsters, at which one may look with wonder, but never with genuine admiration. A true judge will frequently derive much greater satisfaction from an inspection of the same description of stock kept at home in a natural state for breeding purposes, than he will do from looking at those which carry off the honours of the Show-yard.

"It is well known that the evils of the system of over-feeding show stock of all kinds have been frequently deplored, and strong representations made on the subject by breeders, and by the agricultural press. Yet, up to the latest show of breeding stock that was held, there was not the slightest symptom of improvement. It seems strange that the parties most interested in the matter should be so much opposed to it, and yet that nothing is done to remedy the evil. The reason is simply this, over-feeding has become a fashion, and breeders know very well that unless they yield to it they may keep their stock at home, for if they ventured to show their cattle or sheep in the state these would be kept for breeding, no one would look at them.



"In Show-yard competitions we have always maintained that a great deal lies with the judges. The conditions of competition usually point out that the prizes are only to be awarded to "the best breeding animals," and knowing the great risk and uncertainty which exists in the case of high-fed stock, it is clear that judges would be perfectly justified if they put such aside. It is not enough to say that the prize depends on the animal "qualifying." The immediate effect of an award in favour of an over-fed animal is to point it out as the best in the section under any circumstances, and thus the idea of over-condition and Show-yard success is perpetuated, to the future joy of many animals that would otherwise have been useful; for those which have been rendered hopelessly barren in consequence of Show-yard success are seldom heard of.

"Another abuse which has arisen in connexion with Show-yard competition is a false mode of shearing sheep, which is neither more nor less than on a par with such "tricks in trade" as are exhibited in the adulteration of food, and other devices to gull the public. Those who understand the matter, and take the trouble to examine the sheep which have been unfairly clipped, soon find out the deception; but others are deceived, and even those who have been appointed to the office of judges have been deceived, or have overlooked what ought at once to have disqualified the sheep. A card, with "Disqualified for being unfairly shorn," attached to every pen where deception had been attempted, would soon put an effectual stop to the practice; and until something like this is done, our Shows will continue to abet practices which, if we call things by their right names, is neither more nor less than cheating."

### Soiling Cattle.

This practice is on most arable farms, especially where provision is made of crops near the feeding boxes and yards for carrying it out, a profitable method of increasing the store of manure upon the farm. Where Italian Rye-grass and Lucerne and Clover, liberally treated, are near the feeding-house, cattle can be fattened during the summer months more cheaply than during winter, with at least as great advantage to the fertility of the farm. The practice is very warmly advocated in the earlier editions of "Young's Farmers' Calendar," as follows:—

Enlightened farmers have in many districts adopted this system for horses, but still rejected for cattle; and it will probably take a century to render it as universal as it might be, most profitably. The objections to it are not of any importance; it has been argued that the expense is an object, and that cattle will not thrive so well, nor will cows give so much milk, as if fed in the field. That the expense is something cannot be denied, but that it amounts to anything considerable, is contrary to fact. Mr. Mure fed 240 fattening oxen in sheds through a whole summer by the mowing of one scythe; if the attendance upon the beasts be added to this amount, the whole will evidently come to a sum which, when divided either per head or per acre, will be so low as to do entirely away with this objection. As to the question of thriving, the assertion has been made, as far as it has come to my knowledge, without a trial, and is consequently mere theory. The beasts mentioned above were all sold fat at Smithfield, and did as well as similar beasts had done fed abroad in the most favourable seasons, and better than in any summer not remarkably favourable. I practiced it for several years together very carefully for fattening cattle, weighing alive periodically, both while in stalls and when at Grass, and I found that in soiling they thrive better than when abroad. If the world will reason upon every question of farming, they should do it without prejudice, and then their reason would, to my apprehension, agree with these facts. Every one knows how tormenting flies are to cattle when abroad; ride into a field in summer to look at stock, and where do you find them? Not feeding, but standing or resting under trees, in ponds, in rivers, and, if there is no better shelter, in ditches under brambles; in a word, anywhere but feeding in the open air. What they graze is in the morning and evening; and in many cases they lose in the heat of the day all they gain at those moments of their comfort. To this superiority we must add that of the main object, which is the dunghill; in one case this is accumulated in a degree even superior to what is effected in winter; in the other, it is scattered about the pastures, and nine-tenths of it carried away by the flies, or dried almost to a *caput mortuum* by the sun. The prodigious superiority of thus raising a large and very valuable dunghill in one case, and none at all in the other, ought to convince any reasonable man, that there is not a practice in husbandry so decidedly superior as this of soiling, were there not one other reason for it than what have already been produced.

Those farmers who have given particular attention to the state of farmyard manure, as it is made in winter and in summer, and to the efficacy of both, can scarcely have failed to remark that the superiority of the dung arising from any sort of stock in summer is very great to such as is made in winter from stock no better fed.

Cattle, when soiled upon any kind of good food, as Tares, Clover, Chicory, Lucerne, or Grass, make so large a quantity of urine as to demand the greatest quantity of litter; the degree of this moisture, in which their litter is kept, while the weather is hot, much assists a rapid fermentation. On the other hand, when I view the common spectacle of a large yard spread with a thin stratum of straw or stubble, and a parcel of lean straw-fed cows wandering about it, I see the most ingenious way of annihilating litter, without making dung, that the wit of man could have invented. Burning such straw upon the land before sowing Turnips, would be an application not inferior.

Cows thus managed are amongst the most unprofitable stock that can be kept on a farm. With the best food and management, their dung is inferior; but thus kept on a wide expanse of thin litter, well drenched in rain and snow, running to ponds and ditches, they destroy much, but give little.

There is, however, another fact of equal importance, that the food given in stalls or boxes goes so much farther than it will do when grazed where it grows; and when we recollect the old remark, that a beast feeds (or consumes) with five mouths, we shall not be surprised at this fact. A greater stock may thus be supported by the same farm, in one system, than there can be in the other.

Two circumstances demand attention, which, if neglected, will considerably lessen the benefit to be derived from soiling. The one is, to have a plentiful provision of litter; and the other, much care in feeding—to give the beasts but little at a time; if much be tumbled before them, it heats, they pick it over, and the waste may be great; and if a cart be left in the yard loaded, the contents heat, and then cattle will not eat it. A certain degree of care is necessary in everything; and in nothing more than in feeding all sorts of cattle. As to litter, it is an object of such importance, that provision for the system should be gradually made through the winter, if corn enough be not left for summer threshing to supply the beasts. All dry vegetable matter, capable of providing a dry lair in stalls or boxes, leaves, in woodland countries; Fern, dried peat, &c., should thus be collected against the summer months. An enterprising, vigilant farmer, when he has such an object as this in view, will exert every nerve to be prepared for a system the profit of which will depend so much on the care previously taken to be well provided with litter of some sort or other.

The first crops that will be ready for soiling are the Rye, Lucerne, and the Italian Rye-grass, and the *Trifolium incarnatum*; which may be supposed to last all the stock till the first-sown winter Tares are ready, when the Lucerne left uncut should be mown for hay. The second-sown winter Tares come next; then Clover, to be succeeded by the third sowing of Tares, and by the second growth of Italian Rye-Grass and of Lucerne. After this come spring Tares, and the second growth of Clover; and the third cutting of Italian Rye-grass and of Lucerne may follow. If Chicory be applied to this use, for which it is well adapted, it will, on any good land, be mown thrice, and on very good soils four times. The quantity and value of the manure thus made will surprise those who have not witnessed it. Whether the stock be stalled or fed in boxes, or kept in well-littered yards, covered or open, in divisions, according to sort, size, age, fatness, value, or any other rule of separation, if they are fed carefully, have water at command, and are kept clean, all sorts will thrive to the farmers' satisfaction.

### Flock Pruning.

AMONG the many needful rules which every flock-master must never lose sight of, is this: *Always keep your best ewes.* This is the fundamental principle which must guide you in all your labours, if you expect to carry the excellence of your flock one degree higher each year. The reasons for this rule are almost too obvious to require mention. Will any man need to be told that if he sells his best ewes, the buyer will have better sheep than he? If a man with 50 ewes, sells the ten best, it may take him years of careful breeding to get ten more as good as those he sold. Many cannot resist a tempting offer for a good ewe, but it should be remembered that when you sell one such, you sell with her, all her valuable increase for the future. When you have succeeded in bringing your flock to such a degree of excellence that you will not notice the loss of a few of the "number ones," you can sell from the first class ewes. But as you must sell off the yearly increase of the flock, let

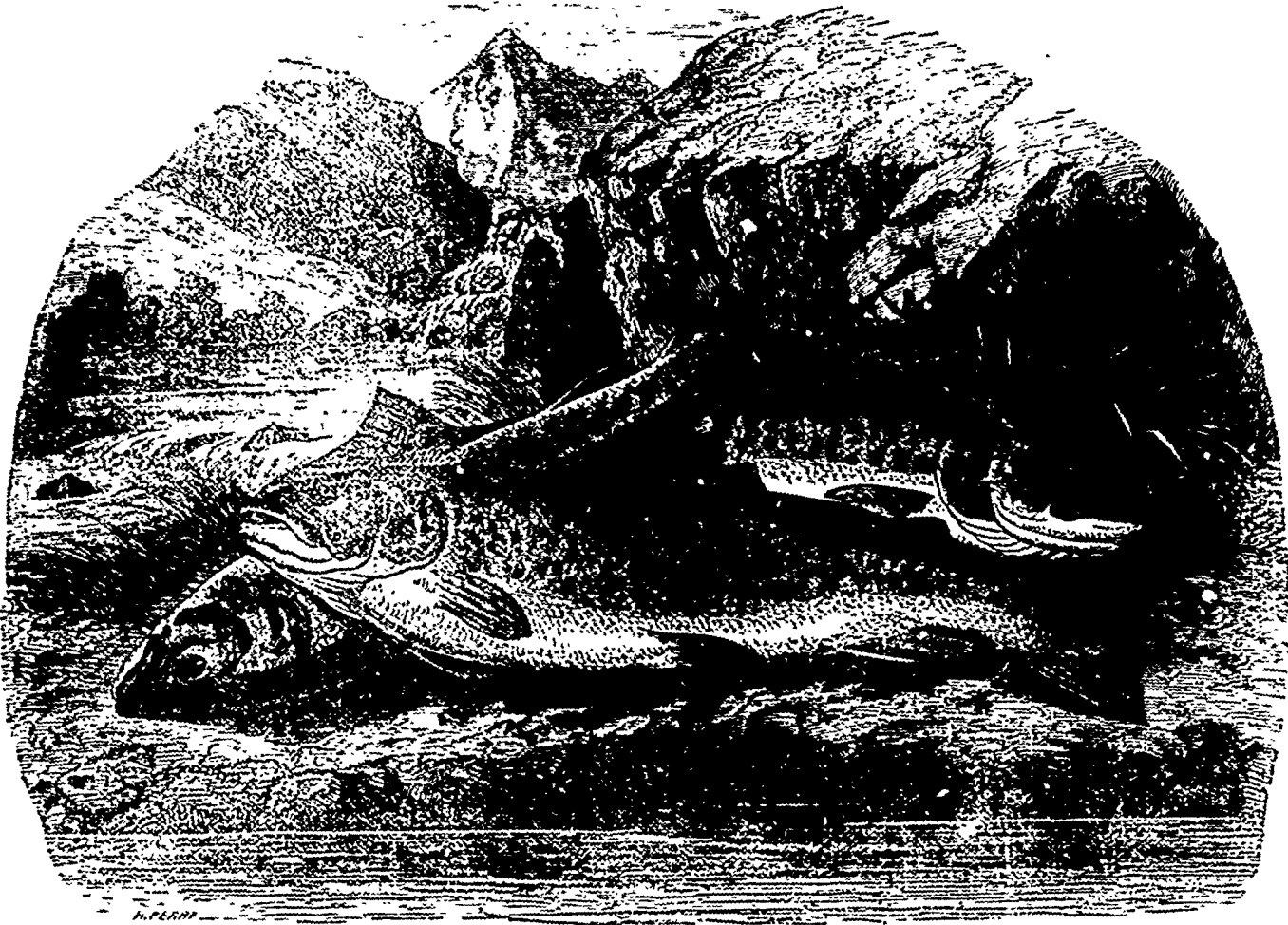
such be selected as you do not wish to keep, and the present is the best time of the year to make that selection. The winter is the test of a sheep's constitution, and if you have watched your flock with care, you can at this season very quickly select those that fail in the necessary vigour and staunchness to make them good breeders. Let all such be pruned out. Fat them for the butcher, or sell them for what they will bring, to those whose means will not just now enable them to buy higher priced sheep. Set aside all that have objectionable qualities as breeders, and put a mark upon them for future disposal. A sheep may look well, she may be stout and hearty, but at the same time she may breed badly. Make all such into mutton. Cut them off as you would useless limbs from your fruit trees. You can't afford to keep such animals any more than you can afford to have a frog pond in the middle of an acre of good land. The man who makes his selection of sale ewes in the autumn will often cheat himself, for the reason that many poor breeders and poor nurses will look plump and stout, just because they may have starved their lambs. A suggestion on this point is enough for any careful flock-master, and a moment's reflection will show any one the importance of attending to this matter in the proper season.—*N. H. Farmer*

**SHEEP-KILLING DOGS.**—The *Valley Farmer* proposes a plan for the detection and punishment of dogs which prowls about in the night, killing sheep. The plan is this:—When a sheep is killed, proceed to make a pen of rails, about six feet high, each round of rails converging towards the center,—so that the opening at the top shall be less than the space embraced at the bottom. In this pen, place the remains of the slaughtered sheep, and secure the rest of the flock for a few nights in some other locality. The presumption is that the dog or dogs will revisit the place where the sheep was killed, and scenting the remains in the pen, will clamber over the rails and into the trap. Once in, the peculiar construction of the pen will prevent their escape, hence they will be on hand in the morning to answer for their misdeeds. The pen should be so arranged as to prevent the dogs from digging out, as they will sometimes attempt to do when other means of egress are denied.

**LOSS OF SHEEP IN OHIO.**—The *Ohio Farmer* says the most serious feature of the great storm on the 17th and 18th ult. aside from the loss of life on the lake, was the destruction of sheep by which something like one hundred thousand, it is estimated, were killed. Up to the 14th of June the weather had been so constantly chilly that very few flocks had been sheared. But that day and the 15th and 16th were so genial as to induce a general shearing. The storm commenced on Sunday the 17th, so deliberately that few whose flocks were exposed thought it necessary to house them, but during the night the heavens opened, the temperature changed, and before daylight Monday morning, from twenty to thirty out of every hundred throughout the Northern part of the state it is believed, were lost. Mr. Mandole, of Franklin, sheared 200 sheep on Saturday, 100 of which were dead on Monday, and others lost half their flocks.

**MARKING SHEEP.**—The following directions we copy from the *New Hampshire Mirror*, in further response to a recent enquiry on the subject:

The advantages of having every sheep in the flock marked with plain figures, such as can be easily read even across a common sheep-yard, are too obvious to every one to need any argument in its favour. The best materials for marking we have ever used are *Red Lead* and *pure Japan*. This mixture will work equally well whether you use iron or wooden types. Many try Venetian Red, which looks very well at first, but it soon rubs off and the figures become obscure. Others, again, when using Japan, mix boiled linseed oil with it, but this is wholly unnecessary. The lead mixes no better with it than with the Japan, and as the latter dries more quickly, the number is not so likely to get rubbed and blurred. The best dish to mix them in is an old-fashioned "flat tin," such as our grandmothers used to bake "Johnny Cakes" in before their open fires. Into this put a few spoonfuls of lead and as much Japan as is needed to mix with it, so the mixture shall be about the thickness of West India molasses. This spreads out over the bottom of your tin, and is just the right depth to cover the surface of your type, hence there will be but little loss. When properly applied we have seen the figures on the darkest Merinos showing themselves with the clearest distinctness round to the end of the year. The marking should be done soon after shearing, and when put on, the sheep should be allowed to go directly from the hands of the marker into an open lot, to prevent them from huddling together and obscuring their numbers by rubbing against each other.



## Canadian Natural History.

### The Brook Trout.

(*Salmo Fontinalis*, of America; *Salmo Fario*, of Europe)

THE speckled Trout belongs to the same family as the salmon, and is so well known as to require no description at our hands. His beautiful figure, his gay colours, and the gracefulness of his motions have been celebrated by statesmen, Divines, and poets, from the days of Isaac Walton down to the present time. No mere description, however, can do him justice. He must be seen in his native element to be fully appreciated.

Nowhere is this fine fish found in greater abundance, or in finer condition, than in the northern regions of this continent. He is equally the delight of the sportsman and the epicure. Next to the salmon, he stands unrivalled not only as a game fish, but as a dainty for the table.

By some writers, the brook Trout of America is considered distinct from the common Trout, *salmo fario*, of Europe. A careful study of the arguments advanced in support of this theory, as well as a minute examination of the American Trout and his European congener have failed to convince us of its soundness. Their manners, their haunts, their prey, and the mode of taking it are quite identical; while the same remark holds good in respect to colour, shape, and the artificial lures used by sportsmen to capture this fine fish wherever it is found. Considerable emphasis has been laid on the fact that great diversity of colour is observable in the trout of different localities. From this circumstance endless attempts have been made in England and elsewhere to distinguish and define fresh species. In our opinion, these attempts have signally failed. The observant sportsman cannot have failed to notice that even in the same river the fish of two pools, separated even

by a few rods, are frequently of an entirely different hue. Indeed, it has been proved by most indisputable experiments, within late years, that the Trout, as well as some other fishes, possesses a wonderful control over his colour. He can, in fact, adapt the shade of his skin to the colour of the element in which he is placed. When we weigh the great influence of light in the production of colours, and then consider how the transmission of light through waters of different degrees of purity, colour and density, affects the light itself, we probably may have got some clue to the right interpretation of this phenomenon. This subject of colour in the trout, however, would demand for its ventilation more space than we can spare for the entire article.

The Trout inhabits none but the purest waters, such as mountain streams, spring brooks, and lakelets, in which the water is pure and cold. Their growth depends much upon the size of the stream they occupy; if in a small brook, they would rarely exceed from four to six ounces in weight; but if placed in a large river, or lakelet, they may attain to as many pounds, or even more.

Their food consists of aquatic insects, and small fishes. They are remarkably shy and wary, but when domesticated, will become so tame and gentle, as to take food from the hand. Of all fish, this is the most desirable for fish culture, and should be selected in preference to any other, provided the quality of the water will be congenial to its wants.

The spawning season commences about the first of October, and continues nearly two months, but a majority are through by the 15th or 20th of the month. They invariably seek very shoal, gravelly rapids for depositing their eggs, and prepare their beds by digging a cavity of from one to two feet in diameter, and two or three inches in depth; by agitating the water in these beds, the fine sand and earthy matter is got clear of, leaving the bottom of the bed covered with clear coarse gravel.

There can be no more delightful recreation than angling for this game fish; and no disciple of the

'gentle art' can read the following lines from Thompson without feeling a thrill of delight:

"Just in the dubious point, where with the pool,  
Is mix'd the trembling stream, or where it boils  
Around the stone, or from the hollow'd bank  
Revered, plays in undulating flow;  
There throw nice Judging, the delusive fly;  
And as you lead it round in artful curve,  
With eye attentive mark the springing game.  
Straight as above the surface of the food  
They wanton rise, or creep by hunger leap,  
Then fix it with gentle touch, the barbed hook,  
Some, lightly tossing to the mossy bank,  
And to the sheltering shore, slow dragging some,  
With various hand, proportioned to their force,  
If yet too young, and easily deceived,  
A worthless prey scarce bends; our pliant rod,  
Slim, plieous of his youth and the short space  
He has enjoyed the vital light of Heaven,  
Soft disengage and back into the stream  
The speckled captive throw. B. should you lure  
From his dark haunt beneath the tangled roots  
Of pendant trees, the monarch of the brook  
Behooves you then to ply your finest art.  
Long time he, following cautious, scans the fly,  
And oft attempts to seize it, but as oft  
The duple water speaks his jealous fear.  
At last, when happily o'er the shaded sun  
Passes a cloud, he desperate takes the death  
With sudden plunge. At once he darts along,  
Deep struck, and runs out all the lengthened line,  
Then seeks the farthest ooze, the sheltering weed,  
The cavern'd bank, his old secure abode,  
And flies aloft and flourishes round the pool  
Indignant of the gull. With ylling hand,  
That feels him still, yet t. his furious course  
Gives way, now, now retreating, following now,  
Across the stream, exhaust his idle rage;  
Till floating broad upon his breathless face,  
And to his fate abandoned, to the shore  
You gaily drag your unresisting prize."

Whether the Trout and other fish really mistake our artificial flies for different species of natural ones, as Englishmen hold; or for something good to eat, the colour whereof strikes their fancy, as Scotchmen think, is a matter about which much good sense has been written on both sides. Mr. Stewart of Edinburgh, in his admirable "Practical Angler," discusses the subject with great ability, and seems to prove the correctness of his countrymen's theory. The same writer handles another mistake, incident to the laziness of fallen man—that of fishing down stream and not up—with great skill. Every tyro should read what Mr. Stewart says on this point. "By fishing up stream, even against the wind, he will, on an average, kill twice as many trout as when fishing

down. If trout are out, and feeding on the shallows, up or down will simply make the difference of fish or no fish; and even in deeps, where the difference in the chance of not being seen is not so great, many more fish will be hooked by the man who fishes up stream, simply because when he strikes he pulls the hook into the Trout's mouth instead of out of it." But he who would obey Mr. Stewart in fishing up stream, must obey him, also, in discarding his light rod, which is, in three cases out of four, as weak and "floppy" in the middle as a waggon whip, and get to himself a stiff and powerful rod, strong enough to spin a minnow; whereby he will obtain, after some weeks of aching muscles, two good things,—a forearm fit for a sculptor's model, and trout hooked and killed, instead of pricked and lost.

We had something more to say on this interesting and fascinating subject, as well as on that of the artificial propagation of the Trout. We must, however, reserve additional remarks to some future convenient occasion.

## The Dairy.

### Cheddar Cheese.

Mr. Joseph Harding, Marksbury, Bristol, communicates the following succinct account of the *modus operandi* of the production of improved Cheddar cheese, to *Bell's Messenger*:

Unlike the Gloucestershire cheese, it is made only once a day. The morning and evening milk, unskimmed, is put together at a temperature of about 80° Fahrenheit, when the rennet is added. In about one hour it is fit to break; a portion of the whey is then taken off, and heated sufficiently to raise the whole mass to about 100°; this is called the scalding. The whole of the whey is then drawn off, leaving the curd to dry and harden at the bottom of the tub. It is then passed through a curd mill, (which supercedes the breaking it into small particles by the hand) and sufficiently salted. It is then removed to the press, where each morning it gets a clean cloth, and the third day it is taken to the cheese-room, where it is kept in laced bandages for a few weeks, and in as many months becomes ripe and good, gracing the tables of the aristocracy. The labour and waste of making are much reduced since the invention by Cockey & Sons of Frome, of a cheese-making apparatus, which is rapidly getting into general use. It consists of a copper tub furnished with an additional bottom or chamber, which is connected by pipes to a boiler and a coldwater cistern in an adjoining room. The evening's milk being placed in a tub at night, is cooled by a supply of cold water from the cistern, filling the chamber and escaping through a stop cock. While the morning's milk is being added to the night's the chamber is filled with hot water from the boiler, which raises the milk to the desired temperature in a few minutes. When the cheese is broken, instead of removing the whey in a vessel to the boiler, the chamber is again filled with hot water, and the process of breaking and scalding is performed under one operation. All the utensils are made of tin except the vats, which are made of oak staves. The vat is made to open at the side, so as to liberate the cheese easily. The cheeses are made thick, ranging from 50 to 100 pounds and upwards, and by the best makers, at all times of the year successfully; though in the majority of instances makers would benefit themselves, and save the cheese-factors from annoyance and much loss, if they skimmed part of the milk, and reduced the size of the cheese in the spring, and especially in the autumn months. It is a mistake to suppose that new milk causes the cheese to heave during the months of March and April, which the cows are constantly calving in; after the first milking the milk is put into the cheese tub, when, in the hands of a skilful maker the cheese is made, thick as at other times. "Fermentation is the natural consequence of the mingling together of milk and rennet if there be more fermentable properties or powers in new milk than old, it matters little, as during the process of making, fermentation must be destroyed to ensure a good cheese."

### Boiled Peas for Milch Cows and Hogs.

"BOILED PEAS," says a correspondent of the Richmond (Va.) Farmer, "as food for milch cows, and for fattening hogs, is far superior to corn, meal, or anything else I have ever seen tried. My honest opinion is, that two bushels of peas are superior to, or worth more to fatten hogs, or to increase the milk of cows, than three bushels of corn applied to the same objects. In experimenting, I have found that hogs not only fattened doubly as fast, but that the improvement of their general condition was in like proportion." "With respect to cows," he says, "the effect was, in ten days, to double the yield of milk. My plan in using them was to soak them in water twelve hours or through the night, before boiling them. By this process, their bulk was doubled, and consequently they required less boiling. Besides this advantage, I found the soaked pea an excellent substitute for green food, having not only the effect on stock produced by turnips, carrots and beets, in improving their appetite, general appearance and milking properties, but imparts none of the bad taste to the milk, which is often derived from the use of the green crops above referred to. It was, moreover, found to exhibit fattening qualities almost equal to those of the boiled pea." He concludes by saying; "I regard the soaked pea for food in winter as decidedly superior to all root crops," and recommends that his "brother farmers should lose no time in testing its value in their own practice."

**SKIM CHEESE.**—The circular of a New-York Commission House says:

The market closes with less activity, but the stock is firmly held at our quotations. Skimmed cheese is a drug in the market; the make of the article has been largely overdone, while the demand for Southern trade has dwindled down to materially nothing, showing that a heavy trade in the article cannot be sustained, and that factories combining the make of both butter and cheese are a comparative failure.

**GOOD BUTTER VS. FOUL CELLARS.**—Good butter can't be made in foul cellars. Nothing receives a taint more easily than butter. It becomes infected readily by offensive odours. Much sweeter, better butter is made in spring-houses than in cellars. Decayed cabbages, turnips, etc., in a cellar, do not impart any virtues to butter, but deteriorate it badly. Good butter is one of the great luxuries of the table; and nothing but the most scrupulous care and neatness will secure it. Early in spring give the cellar a thorough cleansing, and scrubbing if you please. Then whitewash it from top to bottom. A little lime scattered about in heaps is also beneficial. Have an opportunity to ventilate cool nights and mornings. Shut in the cool air and give it no chance to escape. Then if you will scald your pans and crocks and buckets with boiling water daily, and use the proper skill and care, you can make and pack butter that it will be a pleasure to eat.—*Rural World*.

**STRAINING BUTTERMILK.**—A dairy-woman writing to an exchange paper, recommends the straining of buttermilk as a matter of economy. She says:—Place a common wire sieve over a milk pail, and pour the buttermilk into it; with a spoon move the strainings gently from one side of the sieve to the other, until the buttermilk is drained off. What is left in the sieve is called false butter, and makes excellent shortening. If there is a large dairy, and butter made during the season, the strainings can be tried out, by placing them in an iron kettle over the stove, and simmering slowly until the sediment settles to the bottom. Turn off the top. The oil thus obtained answers the same purpose as real butter, in every department of cookery; besides it will do to fry cakes in, or oil cheese, &c. If a dairy-woman has never been in the habit of straining the buttermilk, she will soon learn, by so doing, that it is quite a saving.

**MILK FEVER IN COWS.**—We lost, a few months since, a fine cow with this disease, and there has been considerable fatality with it in some of our large dairy districts. A practical farmer informs us that, in his own dairy, he has found nearly a certain cure to be a large dose of laudanum, not less than six to eight ounces. It has also proved very successful in many other cases, outside of his own dairy. With our own cow—and we believe it is a general accompaniment of the disease—there was a violent dashing about with the head and horns, indicating great excitement of the brain. The laudanum alleviated this, and, by temporarily checking this excitement, allowed time for the disease to be thrown off by the natural efforts of the system. Whatever may be the theory of its action, however, the favourable results in nine cases out of ten have been very remarkable.—*Rural Advertiser*.

## Veterinary Department.

### Skin Diseases in Horses.

**SURFEIT** is a very common affection among horses, in the spring and summer months. It is an eruptive disease, developing itself in the form of small tumours, about the size of a bean, and extending along the neck or over the whole body. It very often proves a sequel to derangement of the digestive organs. We have known horses shew those eruptive tumours in about forty-eight hours, after an attack of flatulent colic. It is caused from feeding for a long time on the same kind of food, especially when it is of a stimulating or heating nature. It is apt to occur in horses that are in large condition and that are subjected to violent exercise, causing them to sweat freely, and then suddenly exposing them to a cold chill. In this form it is often met with in colts and young race horses when first put into training.

This disease comes on very suddenly, small pimples or tumours appear on different parts of the body and neck, and particularly under the mane. In the majority of cases, if properly treated they soon disappear by absorption. When neglected or badly treated they burst and discharge a thin fluid, the hair comes off, and small scales form, which are easily pulled off. At times, this affection proves very irksome and troublesome, causing the horse to rub violently against the stall or fence until he brings the hair off. In the simpler form it appears to inconvenience the animal but little, and is generally easily removed. In the treatment of Surfeit, we recommend a change of food. A mild cathartic as aloes six drachms should be given, followed by a few doses of diuretic medicine. In this, as in most skin diseases, sulphur both internally and externally is an excellent remedy. The skin affected should be well cleaned with soap and water, and dressed daily with a mild solution of corrosive sublimate. The horse should have regular and moderate exercise, careful feeding and good grooming, using a whisp of hay or straw, in place of the curry comb. Surfeit differs from mange in not being contagious.

**MANGE** is also an eruptive disease, and is very contagious. It is the result of the attack of minute insects which burrow into the skin. These insects are called *acari*, and can be easily distinguished by means of a magnifying glass, or even in some instances by the naked eye. In the greater number of cases coming under our notice, this affection is the result of contagion, either from coming in actual contact with a mangy horse, or it may be caused by means of harness, clothing, &c., &c. Mange is also generated by uncleanliness, and insufficient nourishment; the skin is allowed to become covered with dirt, thus, in a great measure, destroying its highly important function in maintaining an animal in health. The first symptom of mange is the eruption of small pimples, causing great irritation and itching. The head and neck are generally the parts first affected; the hair falls off, and the skin is dry and hard, and upon the hardened patches may be seen small red spots. The horse rubs violently against the stall, and is kept in a constant irritation, which very soon reduces him in condition. In the treatment of mange, the horse should be removed from other animals, and the affected parts thoroughly washed with soap and water every second or third day; afterwards dressing with mild mercurial ointment, or a solution containing four grains of corrosive sublimate to the ounce of water. His harness and clothing should also be thoroughly cleaned. He should be allowed a generous diet. Small doses of arsenic and iron administered daily will be found of great benefit.

**CATTLE MANGE.**—It is an ugly, provoking disease, appearing generally in the spring, first about the head and neck of young cattle wintered on dry hay, cut when over-ripe. The mange is a cutaneous disease like the itch, hangs on persistently if not cured, frequently spreading through the entire herd, causing the rubbing off of hair, leaving unsightly bare places and often so annoying young stock as to keep them thin in flesh through the summer in the very best of pasturage. The disease is very readily cured by an ointment compounded of equal parts of fine salt, flour of sulphur, and clear lard. A single application is generally sufficient; more than two is never needed.

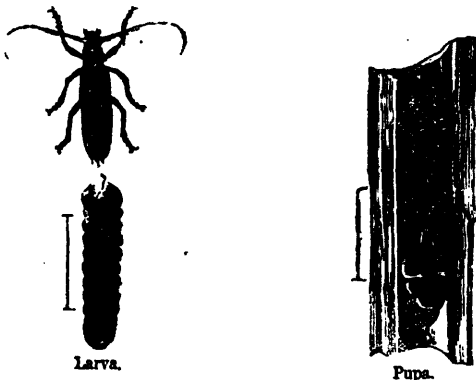


## Entomology.

## The Apple Tree Pruner.

From the Official Report of the Meeting and Proceedings of the Upper Canada Fruit Growers' Association, published elsewhere, our readers will perceive that Mr. Charles Arnold, of Paris, exhibited a portion of an apple tree branch that had been cut off by some insect. By cutting into the branch a little way, the depredator was discovered to be a long, cylindrical grub, snugly ensconced in his burrow, from which he had evidently no expectation of emerging into day-light till ready to issue forth as a perfect beetle. The rude disturbance of his seclusion by the investigator's knife appears to have had a serious effect upon his health and spirits, for when he reached our hands he was dead, and so much shrivelled as to be hardly recognizable.

From the appearance of the burrow, however, as well as of the grub itself, we have very little doubt that it is a specimen of the Pruner Stag-beetle (*Stenocerus pulator*, Peck, or properly *S. villosus*, Fabr, the latter being its earliest specific name), which is well known from its attacks upon oak trees. Dr. Fitch, in his "Third Report on the Noxious Insects of New York," mentions that the insect sometimes, though rarely, attacks apple trees. The specimen before us is probably, then, the same species as the one he refers to, or one closely allied to it. To decide this point, we should require living specimens of the grub, in order to keep them till they are developed into the perfect insect. Should Mr. Arnold discover any more of his apple trees affected in the same way, we beg of him to favour us with as many specimens of the branches as he can conveniently send, and any particulars that he has observed respecting the time of appearance, size of the branches, etc.



The Oak Pruner, with which we believe the insect before us to be identical, is a little over half an inch long when full grown, and about a seventh of an inch broad across the neck, which is its thickest part, and from whence it tapers gradually backwards. The head, is small and black, the neck and remaining rings of the body yellowish white, with some slight blackish markings. The rings or segments are twelve in number, the last two, however, are frequently concealed in the one before them, the insect apparently assisting its progression by drawing them in and out. It has six very minute legs, attached to the anterior segments. From this state it turns into a somewhat active pupa in the spring of the year, and completes its final transformation into a beetle in the month of June. It is then a cylindrical beetle of a dull black colour with brownish wing-cases; the antennae are in the male longer than the body, and equal to it in the female; the whole body is covered with short close gray hairs, which, from being denser in some places, form spots on the thorax and elytra; its total length varies from half an inch to three-fifths.

The peculiar habits and instincts of this insect render it one of the most curious and interesting that we have. We shall endeavour to describe them as briefly as we can.—The parent beetle, with a view to provide soft and easily masticated food for the tender jaws of the infant grub, lays its eggs in the green fresh growth of a twig proceeding from a moderate sized limb. The young worm immediately

upon its exit from the egg, burrows down into the centre of the twig, and consumes all the soft pulpy matter of which it is composed; by the time it reaches the main branch it has become sufficiently matured to be able to feed upon the strong mass of the hard wood, and accordingly makes its way into the branch, leaving the hollowed twig to gradually wither and drop off. It now eats its way downwards a short distance (half an inch in the specimen before us) through the middle of the branch, and proceeds deliberately to cut off its connection with the tree and make its way to the earth by the shortest possible route. This, however, is rather a delicate operation and requires the exertion of all the insect's wonderful instinctive skill; for were it to gnaw too much of the wood away, the branch would break during the proceeding, and probably crush the workman to death. But with admirable forethought and precision it leaves the bark and just enough woody fibres untouched to sustain the branch until it has time to make good its retreat into its burrow, the opening of which it carefully stops up with gnawed fragments of wood. As Dr. Fitch relates—"the most astonishing part of this feat remains to be noticed. The limb which he cuts off is sometimes only a foot in length, and is consequently quite light; sometimes ten feet long, laden with leaves and very heavy. A man by carefully inspecting the length of the limb, the size of its branches, and the amount of the foliage growing upon them, could judge how far it should be severed to insure its being afterwards broken by the winds. But this worm is imprisoned in a dark cell only an inch or two long, in the interior of the limb. How is it possible for this creature, therefore, to know the weight and length of the limb, and how far it should be cut asunder? A man, moreover, on cutting a number of limbs of different lengths, so far that they will be broken by the winds, will find that he has often miscalculated, and that several of the limbs, do not break off as he designed they should. This little worm, however, never makes a mistake of this kind. If the limb be short, it severs all the woody fibres leaving it hanging only by the bark. If it be longer, a few of the woody fibres on its upper side are left uncut in addition to the bark. If it be very long and heavy, not more than three-fourths of the wood will be severed. With such consummate skill does this philosophical little carpenter vary his proceedings to meet the circumstances of his situation in each particular case!"

Having performed this operation successfully, and closed its hole, that the jarring of the branch when it falls to the ground may not shake it out, the grub retreats to where it first entered the limb, and goes on eating up through the heart for about six inches or a foot; and this it does both before and after the branch reaches the ground. The object of this amputating performance it is difficult for us to understand fully, but we may imagine that it is for two purposes first, as regards the insect itself, that it may the more effectually escape the attacks of woodpeckers and other foes, and be less exposed to the winter's frosts; and secondly, that the tree may receive the benefit of a pruning of its growth, which in its natural state might be too exuberant. Thus wonderful and varied are the checks and counter-checks that the Almighty imposes upon his works; to each one there is laid down the law, "thus far shalt thou go, and no farther!"

The obvious remedy for these singular insects when they attack fruit or other valuable trees is to gather up the fallen limbs, and burn them, before the grub has time to complete his transformation into the perfect state.

## Pear and Cherry-tree Slugs.

A "READER," writing from Adjala, C. W., complains that his pear and cherry-trees are almost entirely destroyed by slugs, and desires some information respecting the best mode of putting an end to their ravages. If he will look up our last volume, that for 1865, and turn to page 262, in the number for September the 1st, he will there find a full description of these little pests, as well as the best method of destroying them. In case, however that he should not have the back numbers convenient for reference, we transcribe the remedies we there mentioned. "Ashes or quick-lime sifted on the trees by means of a sieve fastened to the end of a pole, has been much recommended. The best remedy probably for this and other similar pests which are too minute to be picked off by hand is called "Haggerston's mixture"; it is composed of two pounds of whale-oil soap dissolved in fifteen gallons of water, and is applied by means of a large syringe or hypodermic to the affected trees."

## The Apiary.

## Management of the Apiary for August.

BY J. H. THOMAS.

But little can be done this month unless moveable comb hives are used, then cards of comb from strong stocks may be exchanged with weak stocks. In this way stocks may be equalized both as to bees and honey. Old stocks that cast three and four swarms, often throw off all their queens, and there being no eggs in the hive at this time, the bees are unable to reproduce another. They should be examined and if found to be queenless, should be given a queen or queen cell, if they can be obtained, if not worker comb should be given them at once, so that a queen may be developed, before all the drones are destroyed.

Second swarms are also liable to become queenless by the young queens being destroyed when out on their bridal tour. If the bees about the lighting boards appear indolent and irritable, such stocks should be examined and provided for as mentioned above. An unceasing warfare should be continued through this month with millers and miller-grubs, none should be allowed to escape. Honey boxes should be removed if intended for market, before the bees commence to deposit Buckwheat honey; for Buckwheat honey is dark and unpalatable.

In the sections of the country where Buckwheat is grown, strong stocks may fill up and swarm. Those who are anxious to increase their bees and are using moveable comb hives may give such a swarm a card or two from some strong stock and assist it to make enough honey to winter safely.

## Bee-Keeping.

If a man engages in bee-keeping with the idea that he shall make a fortune, he will simply be disappointed. Tens of thousands are disappointed yearly. They are led to investments in bees, because some one swarm or more has realized great profits. These are accidents, just as large pumpkins, and extra crops, in favourable seasons are. We must not calculate on general principles from mere accidents, for these are the exceptions.

Bee-keeping is profitable to a certain extent, that extent depending, like other things, much upon the manner in which it is conducted. According to the statistics, bees are worth about four dollars per swarm, that is they realize a profit making them worth that. This is the experience of the world, as bee-keeping generally runs. Some cases are more successful. Each one, in engaging in bee-keeping, intends to be this successful case—yet he turns out with the ordinary profit. He stands just as much chance to lose as to make. The probability is, that with the usual care he will have the usual moderate profits. Were it not so, and bee-keeping were the profitable thing these enthusiasts imagine, everybody would engage in the business. Be not deceived; bee-keeping is moderately profitable when fairly treated. So is hen-keeping. So is anything which people magnify to great heights—to be let down after trying. With moderate expectations and proper treatment, any of the departments of life can be made remunerative.

We will here mention one of the principal things in bee-keeping. Never engage in bees—at least largely—in a neighbourhood where they are already largely kept, as the pasture, so to speak, is cropped short. There is but a certain quantity of honey in each locality. Exhaust this, which is done by a large stock of bees, and there will be little to get. A new country is generally favourable to bees; so in any country where there is much bloom and few bees. In a locality crowded with bees, keep at most but a few swarms, as these will exhaust the honey in their immediate neighbourhood. You will get the same honey that you would if you had a larger number of swarms, in which case the large number of swarms, among which the honey is divided, would not pay income on the amount invested. The fields are a pasture for bees as well as cattle, and they must not be overstocked.—*Rural World.*



## British Cleanings.

### A Crow in the Garden.

A correspondent of the *Evening Post* says:

"THE crow is readily tamed, and there has been one in this neighbourhood for the past year that is so intelligent, and has taught himself to be so useful, that his case goes far to prove that these birds may be trained so as to be of much value. This bird belongs to a gentleman whose farm is mostly cultivated as a fruit and garden farm, and the first idea he had of his usefulness, was one day when the crow followed him to the squash field where he was engaged in fighting his annual battle with the black and striped bugs, which rendered it some years almost impossible to raise a single squash. The crow watched his master's proceedings with great apparent interest, first looking out of one eye and then turning the other, as if to study both sides of the question—as is the habit of the crow-people when, with a single jump, he pounced upon the bugs, and from that time took the whole business upon himself, turning up the leaves and peering under them in the most comical manner, devouring all the bugs, and in a very short time clearing the entire piece, and what was more, he performed the same office for the neighbours for some miles around, watching the plants for the whole season.

What was curious in regard to this crow, he confined his travels to his own side of the street; he could not be enticed to cross on any account. He also appointed himself "perpetual sentinel" over the place, giving a caw of alarm when any one, man or animal came near. He ruled over all the other birds with the exception of the king-birds, and these he seemed to regard with a kind of ludicrous fear diving into the grass whenever attacked by them, which was by no means an unfrequent occurrence, and cawing loudly to his master for protection. Within sight of my window, where I am now writing, a tame crow was reared this last season, who took upon himself in a similar manner the guardianship of his master's garden, keeping it entirely clear of worms and insects. This bird however, has never seemed to think himself competent to undertake any mere extensive office, but has confined himself strictly to his own home. All the family of the corvidæ (crows) are remarkably intelligent, and can easily be tamed."

**CURIOS FACT.**—Some times since says the *Norfolk Chronicle*, "Mr. Henry Plowright, ironmonger, Swaffham, purchased an ash tree which was grown in the parish of Ashill; and on Tuesday week he had it cut up for purposes connected with his business. In doing so, at a part of the trunk, which must have been about 16 feet from the ground when growing, there were found a number of bones evidently belonging to the bovine tribe. The tree itself was an uncommonly healthy one, while the bones are in an astonishing degree of preservation—presenting indeed, so far as the appearance of the greater portion is concerned, not the slightest approach to decay."

**A LARGE VINE.**—A Correspondent of the *Cottage Gardener* writes:—"On the sea coast, between Tyre and Sidon, is a very ancient mulberry garden, surrounded by some enormous Olive trees whose hollow trunks attest their great antiquity. By the garden side stands a cool fountain, fed by one of the mountain streams, so welcome to the traveller for his noon-tide rest when travelling through that thirsty land. After resting awhile at this pleasant spot, we rambled through the garden of mulberry trees, partly for the sake of tasting the fruit, but more with the intent of learning something about the rearing of silk-worms, which was there in full operation. Whilst admiring the size of the fine old Mulberry trees, I happened to notice the bark of a tree which appeared so vine-like in its character that I stopped to examine it, and to my surprise, found that it was really a Vine of most enormous dimensions; it rose by two main stems, and fairly rested upon six or eight of the large Mulberry trees around. I measured the two stems a few inches above the ground; the larger one was 50½ inches in circumference, the smaller 40 inches. I endeavoured to trace out the area covered by its branches, but could not obtain an exact measurement, for the branches had rambled most irregularly. It had a splendid crop of very large bunches of grapes, then but in early stage of growth, and I was told that it is a black variety. My impression is that it is one of the largest vines in the world, and it would well repay a visit to Einel-Kanterah, for that is the name of the spot, if it be sought for by any of your readers, whose rambling propensities may carry them along that sea-shore."



### An Agricultural Tour Eastward.

To the Editor of THE CANADA FARMER:

SIR,—Having gone through a considerable portion of the country during the past week, from Toronto to this place, I send you a few remarks on the state of the crops, and the intercourse which I have had with some of the leading farmers and men of business.

Taken as a whole the crops through the country I have passed, must be pronounced good, and the prospects generally, of the farmers are highly encouraging. I saw but little winter wheat till I reached Lanark and Renfrew, where that crop, in some localities, will prove remunerative; in others it has failed in consequence of the severity of the winter, and the want of a sufficient covering of snow. Here and there, marks of the attacks of the midge were observable, but the crop is getting too far advanced in the more forward situation to be seriously injured by that cause; how it will be with spring wheat, which is universally good, remains to be seen. The spring crops generally have not looked so promising for several years, and potatoes are growing fast with a luxuriant appearance. Turnips, mangels, &c. seem to have taken better than in some parts of the west; but these crops are by no means so extensively cultivated as they ought. Hay will be on the whole quite an average; on the newer and well managed meadows the crop is heavy. Pastures are green and in most places afford a good bite for sheep and cattle, which appear in a thriving condition. The number of both, as well as of horses, has been of late much reduced, in consequence of the American demand, and it is now difficult to get good beef or mutton, though prices remain high. The spring in central, as in other parts of Canada, was dry and cold at the commencement, and consequently late: but abundant rains with a warmer temperature followed, and the effects on vegetation have been almost marvellous. Indeed fine settled weather is much needed. Heavy grain in some places has been badly laid, and hay somewhat injured. It rained heavily here the whole of last night, with a prospect this morning of a continuance of broken weather.

I had the pleasure of spending a day or two with Dr. Richmond of Gananoque, President of South Leeds Agricultural Society. The doctor cultivates in excellent style, a valuable farm within the limits of the town, with a very picturesque residence, commanding a fine view of the majestic St. Lawrence, with its beautiful islands and romantic scenery. We drove round the country and had much intercourse with a number of intelligent and well-to-do farmers, Messrs. Stark, Purvis, Bone, &c., from whom I derived much information, and felt not a little gratified at witnessing the fruits of good cultivation and management. How different would our country appear if good farming was the rule, rather than the exception! Still, as a whole, we are improving, and much allowance must be made for the difficulties which are always, more or less, incidental to the settlement of new countries.

I may mention that it is 13 years since I was last in Gananoque, which was then an inconsiderable village, with little more in the manufacturing line, than a nail factory and a flour mill. It is now a busy and thriving little town, and its great water power turned to good account. It took me several hours merely to walk through its mills and workshops, in which several hundreds of artisans are profitably employed. I may just mention the names of the principal firms: Byers & Matthews have extensive works for manufacturing carriage axles, hinges, &c. J. Briggs makes carriage springs, from one and a half to two tons a day. Notwithstanding the heavy import duty, both these firms export largely to the United States. E. Abbott, extensive machine shop; Skinner & Co., snath factory; Cowan and Britton, nail factory; D. F. Jones, M.P.P., extensive works for manufacturing spades, shovels, forks, &c.; R. Brough, rake and patent wheelage works; W. Brough, flour mill with

six run of stones; Colton's woollen factory; a pin factory; Mr. Gonlettes, general turner and wooden ware; P. O'Brien's flour, stave and barrel factory; also a saw mill, tannery, sash factory, and foundry. This will give the reader some idea of the present manufacturing condition of Gananoque, which has considerable water power not yet taken up. I need hardly say that between manufactures and agriculture there is a very intimate and beneficial connection.

I may mention here that Mr. Collard of Gananoque, makes a cheap and apparently effective little implement for pulling and raking peas, which has hitherto been felt as a desideratum in harvesting that crop. Mr. Cross has commenced a small cheese factory in this vicinity. At present he has only the milk of some 50 or 60 cows, but expects soon to increase the number. He pays six and a half cents per gallon for milk, and shallow judging from the quality of cheese already made, there is reason to hope the experiment will prove successful. The dairy should attract more attention than it has hitherto, throughout Canada; while as a whole is, from its soil and pasture, well suited for cheese making on a large scale, and a copious supply of good spring water is in most places readily obtainable. There is at places portions of the surface of this extended section too shallow and rocky to admit of cultivation. The whole of this, however, is by no means sterile, but with proper management is capable of sustaining both cattle and sheep. In dry summers the scanty herbage and what crops are cultivated wither away. This has been the case in the proven parts of this district for the past two or three seasons, but the abundant rains of this summer have produced a great change in this respect. It is a pity that so much of this thin rocky land has been entirely denuded of trees, thereby increasing the heat and drought of summer, as also the exposure of winter. The planting of the larch fir and other suitable trees here and there on these thin soils and in the crevices of the rocks, would greatly improve the appearance of the country, and the climate, and also to some extent, its pastoral capabilities.

I spent a very agreeable day in the vicinity of Brookville; Mr. Sibbald, Secretary of the Electoral Division Society, kindly drove me round the country and introduced me to several farmers. Brookville is one of the cleanest and prettiest towns in Canada and the drive along the banks of the St. Lawrence to Maitland and Prescott is delightful. The crops along here are heavy. I observed on the farms of Mr. Reeland and Mr. D. Jones, clover and grass that would amount to two and a half tons of hay per acre. Drainage with tiles or stones has been extensively practiced, where needed, on these and other farms, with great advantage. I observed several grain crops so heavy that they had been much laid by the recent rains. With fine weather, however, for the future, no very serious mischief has been done.

I have to meet, this afternoon, the members of the Renfrew Agricultural Society, and after going through this new and interesting county, shall proceed through Carleton and Russell.

Yours, &c.,

GEO. BUCKLAND.

RENFREW, July 23, 1866.

### Was it Pleuro-Pneumonia?

To the Editor of THE CANADA FARMER:

SIR,—On the 16th May, 9 o'clock p.m., a farmer came riding to my place in great haste. He wanted to know if I could break a spell of witchcraft, as he had a cow that was elfin-shot. A neighbour and he had performed some ceremony on the cow, but it did not have the desired effect. I had hard work to suppress my risible nerves at such arrant nonsense. 9.30—started off at a sharp trot. 10.15—arrived: Examined the animal; found her pulse tense, firm and corded, about 85; ears cold, body hot, quick and laboured breathing, with grunt; mouth and tongue hot and sticky; muzzle hot and dry; eyes dull and watery. I administered Ol. Lini, o. j.; Chl. Sodium, ℥. s. s.; Ep. Salts, ℥. s. s.; Potass.—Nitrate, Zi; Calomel, in a quart of gruel. Gave laxative Clysters. 12.30 a.m.: lying down; muzzle secreating; ears warmer; not grunting so much; more natural breathing. Gave her Flax-seed tea, do Ene-ma. 6 o'clock a.m.: found my patient removed by the owner into a filthy, bad-ventilated horse-stable, containing two horses, and any amount of gas. She was standing with her nose to a chink. I instantly took the hint, and removed her to a cool open shed. Decidedly worse. I resorted to vena section until the pulse began to falter. Gave her Zinc Aconite, ℞. oz. s. s. Ordered doses of Nitre and Salt three or four times per day, with plenty of Flax-seed tea—positively nothing to eat, except a small Bran mash 12 noon. good symptoms. Peristaltic motion c

primæ viæ, &c. Called on to go 10 miles to extract a splinter of stick from the coronet of the hind foot of a horse. Did not see the cow again till the 20th. Improving fast. Ordered to continue the saline medicine for three or four days longer—bran mash three times per day, and to allow her to run in a paddock a couple of hours or so for a few days, and to have free access to a pail of saline water. 29th: the animal is quite well, and yielding a good supply of milk.

I am, &c., G. W. THOMAS.

Arran, Co. Bruce.

NOTE BY ED. C. F.—In our opinion, the cow was suffering from some derangement of the digestive organs. If she had been affected with Pleuro-pneumonia, it is not probable that recovery would have taken place so soon. We do not approve of such complicated drenches as you administered. Mixtures that are composed of so many medicines are generally injurious.

### Salt as a Manure, &c.

To the Editor of THE CANADA FARMER:

SIR,—In reading your synopsis of Dr. Voleker's annual report, you say in your remarks thereon, that "the effects of salt when used as a manure have not as yet been very satisfactorily determined in Canada, &c." Last spring, I thought I would try the effect of a top dressing of salt, and accordingly I bought ten bags of Liverpool salt, and sowed it on barley, wheat, and oats with very marked results. I sowed about 150 lbs. per acre; but I am convinced that I ought at least to have sowed twice that quantity. I left strips in each field unsowed, in order to test the "efficacy of salt as a fertilizer."

I have no hesitation in saying, that even so slight a dressing of salt as I supplied to my cereals added one-third to my crop. My neighbours say that the salt had a wonderful effect. I understand that a public-spirited merchant in town intends to bring into port, this fall, a vessel-load of refuse salt from Montreal. And I am confident that the land about here will get a pretty liberal dressing of salt another season.

Crops of all kinds are looking very promising in this vicinity. Fall wheat will probably be below an average, and so will hay, both clover and timothy. But spring wheat, barley, peas, oats, potatoes, &c., never looked better in the memory of the oldest inhabitant. Turnips are growing finely, and so are the weeds.

I noticed one field of hops in this neighbourhood, and they are looking finely. We are having very poor hay weather. Barley will soon be ready for the reaper.

Black warts on plum trees.—You gave, on page 206, No. 13, Vol. III., a remedy for black warts on plum trees. A neighbour of mine accidentally discovered that leached ashes was a preventative, by observing that a fine tree that stood near an old leach barrel was free from those disgusting excrescences, while all the rest of his plum trees withered before the fell destroyer. I set out several plum trees seven years ago, and as yet I have not discovered the first sign of a wart. I put a dressing of leached ashes around the roots every year. MERRIMAC.

Hope, July 23rd, 1866.

### Canadian Nettle Fibre.

To the Editor of THE CANADA FARMER:

SIR,—I send you a small sample of fibre of *Urtica Canadensis*, or Canadian nettle. You will observe it is not very strong but this arises from its exposure to the snows of last winter.

As the plant is an indigenous perennial, growing very tall, it becomes a question whether it cannot be added to the list of farm crops, thereby adding to our industrial resources.

As there are many corners on our farms where it can be profitably brought in, you might be good enough to invite attention to it.

I am, &c.,

A. KIRKWOOD.

Ottawa, 21st July, 1866.

NOTE BY ED. C. F.—The sample of nettle fibre referred to above is particularly fine and silk-like. The genus *Urtica* affords useful fibre in many countries, and our Canadian species could no doubt be profitably utilized by proper cultivation and preparation.

POULTRY KEEPING.—We are in receipt of a communication on this subject from J. P. H. Newburg; but as it neither contains any new idea on the subject, nor relates any valuable experience, we do not see that our readers would be interested or instructed by its publication.

GOOD FEEDING.—G. L. Ernestown, of Ernestown, Co. of Addington, writes as follows:—"On looking over the columns of THE CANADA FARMER of June 15, I observe an account of the weight of Mr. E. B. Perry's, of Rhode Island, Short Horn bull calf which weighed 318 pounds at 4 months old. (Mr. P. should have stated what he fed his calf on.) Mr. P. would like to know if any one else has a calf that weighs heavier and grows faster.

In justice to Canada, I can state that I am now raising a bull calf—a cross from a Galloway bull and a Canadian cow—which weighed 312 pounds at 3 months old; and at four months old weighed 434 pounds he was fed only on skimmed milk and Indian meal since he was 13 days old."

TOMATO SOUP.—A "Constant Reader" sends the following recipe:—"Make a good stock of a knuckle of veal and an old fowl, boil six hours, then take 3 large onions, 1 carrot, and small head of celery, slice and fry in  $\frac{1}{2}$  lb. fresh butter for about twenty minutes or half-an-hour, add 2 or 3 ounces of fine flour, and a dozen large tomatoes previously squeezed and the pips taken out, wet them with about a good quart of your white stock, boil for an hour and a-half. Rub all these ingredients through a tammy cloth, then put them into your soup pot with a little more of your stock, boil up, skim, and add salt and pepper to taste; but when made for invalids, for which this soup is in much repute, pepper is generally dispensed with. A pat of fresh butter can be added just previously to dishing. Fried crusts are usually served with this soup."

## The Canada Farmer.

TORONTO, UPPER CANADA, AUGUST 1, 1866.

### Harvest Prospects.

FROM the extracts of our local cotemporaries, which we publish in another place, together with the views expressed in Prof. Buckland's letter, in our present issue, we have little doubt but that the coming harvest will be a favourable one for our farmers. With the single exception of fall wheat, every other cultivated crop promises to be over an average yield. In the Niagara district the, barley harvest has already commenced. We learn that the yield of this cereal promises to be good and the sample fine. We would impress on our agriculturists the necessity of CUTTING GRAIN EARLY before it is dead ripe, and the natural sap has escaped from the straw. The sample is invariably finer and weighs heavier, while, for fodder, the straw is worth, at least, five times as much.

### Among the Apiaries.

(Concluded from page 217.)

WE must not omit mention of our visit to the apiary of Messrs Thomas of Brooklin. It consisted, July 5, of 48 hives, to which additions have doubtless been made since, both by natural and artificial swarming. Of course we expected to find everything conducted in the highest style of bee-keeping at this apiary. Nor were we disappointed. The Messrs. Thomas are perfectly at home among their bees, and manage them like a well governed family or kingdom. They handle them without veil or gloves, merely using a little smoke to quiet them. We were shown the interior of several hives, most of them containing Italian

stocks, and were much interested in the system by which queens are bred and stocks multiplied. The Messrs. Thomas have nearly discarded natural swarming, and have adopted the artificial method. When a colony is numerous enough to admit of division, they take out a couple of frames, being careful to have one upon which is the queen. These two frames are put into a new hive, and two empty frames substituted for the two full ones taken out of the old hive. The new hive is then put in the place that had been occupied by the old hive, and the old hive is removed to a new stand at some distance from the spot where it formerly stood. The consequence is that a large number of bees find their way back to the old spot rejoining the queen and portion of the colony which had been transferred with her. The bees in the old hive on finding themselves without a queen at once go to work to raise one. While this is going on, young bees are continually being hatched. These know nothing of the old home, and adhere contentedly to the new one. In this way, two colonies are made out of one, and the uncertainties of natural swarming are escaped. The Messrs. Thomas are of opinion that bees do quite as well when artificially swarmed as they do when allowed to swarm in their natural way. We had an opportunity of comparing the Italian and common bee at this apiary, and have little doubt that the Italians will prove a great acquisition to the bee-keepers of Canada. The Messrs. Thomas are so convinced of their superiority that they intend as quickly as possible to Italianize their whole apiary. We had ocular demonstration of their being more prolific and better honey-gatherers than the common bee, and the Messrs. Thomas are satisfied that they are more hardy, and that they will collect honey from sources inaccessible to the ordinary black bee. The fact that they will gather from the red clover is a very great recommendation of them. They are more docile than the common bee, in ordinary circumstances, though when made angry they are more vicious and apt to sting. Altogether they seemed to be stamped with a characteristic of great energy. They are very quick in their movements, and are busier than the "little busy bee" with which we have so long been acquainted. They are also a more beautiful insect than the common black bee. As already intimated in our advertising columns, the Messrs. Thomas are prepared to supply Italian Queens to order.

We inspected the Bee-Hive manufactory of the Messrs. Thomas, as well as their apiary. Every part of their hive is made by machinery, so that the whole thing fits exactly. Since introducing machinery for the purpose, they can not only turn out a better but a cheaper hive. Hence they have recently lowered their prices to figures that are certainly very reasonable, considering the amount of work there is in one of their hives. We were glad to find that the demand for them is brisk, so much so that they have found it difficult to keep up with orders. They expect to sell at least 400 the present season. This speaks well for the advance of apiculture in Canada.

From our intercourse with parties with whom we have met in the course of our apiarian visits and enquiries, we are satisfied that so soon as the modern improvements in the management of bees become generally known, there will be a great deal more attention paid to this most interesting branch of rural economy. The fear of being stung is the great hindrance to bee-keeping. But this fear may be dismissed, if parties will only inform themselves, and take a few simple and easy precautions. By the use of smoke, for example, a stock of bees can be at once rendered quite docile. We would counsel all beginners to furnish themselves with a veil and gloves. They may not be necessary, but they help to quiet the mind, and promote self-possession, while in case of accident they are a complete protection from being stung. We can speak from experience on this point. It was not until we found from reading on the subject, what advances had been made in bee science of late years, that we plucked up courage to undertake

the management of a stock. At first we were somewhat nervous and hesitant, but a few trials inspired confidence, and now, though our actual experience only dates back a year, there is scarcely any operation among bees that we dare not undertake, and cannot perform with perfect ease and composure. A single sting has been the whole extent of our punishment thus far.

As most beginners will probably begin with a single stock, it may not be amiss to narrate the history thus far of our own little apiary. We commenced with a late swarm last season. It was put into a Thomas' hive with observing facilities in the way of glass sides and outer doors. Last season the bees filled the body of the hive, and a box containing 20 lbs., which was appropriated to family use. The stock wintered well and had honey enough and to spare this spring, so that we robbed them of a portion of their store for the table. In addition to filling the hive, they have made 16 lbs. of surplus honey which is in course of consumption in-doors. They have cast a fine, strong swarm which we hived in a Scott hive in order to give its merits a fair trial. We also purchased a swarm this spring, which in three weeks has filled the body of a Thomas hive with honey and brood, and is now at work in the surplus box.

As an illustration of the profits of bee-keeping we may instance our oldest stock. Putting down its cost at \$10, viz.: \$5 for the bees and \$5 for the first Thomas hive and right to make for our own use. Last season, the hive yielded 20 lbs. surplus of fall honey, worth 20 cents per lb., making \$4. This season it has cast a swarm worth \$5 and the 16 pounds of surplus, being the finest quality of white-clover honey was worth 25 cents per lb. Here then is a return of \$13 in one year from an investment of \$10. This is only a case of moderate average success, such as any one of ordinary common sense may hope for in the use of an improved moveable-comb hive. For our part we do not know in what branch of rural economy or mercantile business a \$10 bill can be invested to better advantage than in the purchase of a bee-hive and swarm of bees.

As we observed at the outset of this article, every farm should have its apiary. We go farther. Every family in a village, or the outskirts of a town or city might have its little collection of bee-hives. It is possible to over-populate a region with bees, but apiculture must increase a hundred-fold in Canada before this condition of things comes about.

### Rural Economy of the Netherlands.

A VERY interesting report on the rural industry of Holland, by M. Emile de Lavelege, Professor of Political Economy at the University of Liege, has recently appeared in the *Journal d'Agriculture Pratique*, to a translation of which, by Mr. Evershed, in the last part of the Royal English Society's Journal, we are indebted for the material of the present paper.

The Kingdom of the Netherlands, exclusive of the Grand Duchy of Luxemburg, comprises 8,190,000 acres, with a population 3,500,000, or a little more than 100 to 250 acres; while in Belgium it is 160, and in France only 68. Formerly Holland was distinguished for its commerce, the principal source of its wealth and prosperity. "The country was supported, not by the plough tilling the bosom of the earth, but by her navy furrowing the waves of every sea." Commerce and agriculture are by no means antagonistic interests, but rather twin sisters—the one usually flourishing and declining with the other. Our Canadian agriculture will never reach an advanced state of improvement till our manufacturing and mining resources become more fully developed. Holland, however, near a century ago, when her commerce was visibly declining, slowly began the work of agricultural improvement, which, under the peculiar physical conditions of that country, in less than half a century, assumed very striking and gigantic proportions; and for many years past the soil has been

made to produce nearly food enough for the entire population.

The country may be divided into two almost equal parts—the low clayey districts of the sea coast, and the higher sandy districts of the interior. The former are by far the most productive, either for pasture or arable purposes. In the earliest historical times, these low lands began to be gradually reclaimed from the shallow waters of the adjacent sea by the artificial means of dykes and embankments, and in 350 years, 875,000 acres of the richest land have been won from the waters. The average value of this land is put down at £48 sterling per acre. Two-thirds of it is in grass, and has the appearance of an immense pasture.

"This is the home of those famous cows which yield 900 to 1,100 quarts of milk a year. Nowhere is farming more simple in its details, and at the same time more profitable. The Province most famous for its grass land is North Holland, a low, projecting peninsula which stretches northwards from Amsterdam, with the ocean on the west, and the Zuyder Zee on the east. It would long ago have been divided by many islets if it had not been artificially protected from the waves. Holland signifies, in the native language, *hollow land*, and hollow it is, in part, for when you look over the country, you see in all directions canals above the level of the fields, and boats sailing over the heads of cows. Under such circumstances, natural drainage is impossible. To get rid of the surface water, recourse is had to wind-mills, by means of which it is pumped into the canals. Meadows occupy seven-eighths of the land, and during the summer the cows remain day and night in the pastures. Cheese is largely made, and is called by the name of the little town of Edam, where a large cheese market is held. Hard, dry and round, they will keep for a year or more in the hottest climates, which makes them particularly useful for the navy. England is a large consumer."

We saw the other day, for the first time in Toronto, a small quantity of Dutch cheese, round and hard like cannon balls, weighing from five, to eight or nine pounds each. The thing was certainly a curiosity, for the importation of Dutch cheese into Canada, where as good or better articles can be made at a much cheaper rate, can only be regarded in that light.

M. de Lavelege gives details respecting the wealth of the Dutch farmers, which would seem incredible if they were not established by all kinds of evidence. The unit by which a fortune is reckoned in the Low Countries is a "tonne" of gold, that is about £8,540 Sterling. A farm landowner who is worth one "tonne" is not esteemed rich. It is common to meet with men who are worth two or three. Our author gives the following account of a country wedding which passed here in the street:—

"Forty carriages, filled with the guests, went along at a smart pace. These vehicles are of an antique and very pretty form. They call them 'chaises.' They are, in fact, the gigs of the eighteenth century, with the bodies in the form of a shell, hung high, and covered with gilding and ornament. They are so narrow that there is hardly room for two to sit. So the young girls, with fluttering lace and ribbons, and golden frontlets glittering in the sun, were squeezed close by the side of their jovial companions, who, with their arms stretched out, drove their strong, black nags at a great rate. In the evening, the guests came to the hotel where I was to take refreshments. I asked one of these yeomen if the bride was rich. 'O, yes,' was the answer, 'not badly off, a tonne and a-half, I dare say; but,' presenting a smart lass with black eyes, 'this is my intended, who is much more comfortably provided for, she will have two.'"

The cultivators of the soil are generally, as in Canada, its owners; and it is stated that seventy-five acres well stocked represent a tonne; and most of them make investments in the public funds.

"All have their houses furnished in luxurious style, and make a great display of handsome inlaid plate. Since the opening of the English market raised the value of their products, they are not content with having silver tea services, but the goblets and large dishes of all sorts must be of the same metal, and some people, finding even silver too common, have come out with gold plate."

The drainage of the Lake of Haarlem, covering 45,000 acres, commenced in 1839, ranks among the

greatest agricultural improvements of the world. The average cost per acre of this wondrous transformation was a little under £17; and it is stated that this land, at the present time, readily sells for £32 to £40 an acre. It would thus appear that this ancient lake, formerly worthless, now yields a gross agricultural return of £160 000.

"The gardens of Holland have long been celebrated. Their headquarters are in a belt of country stretching along the sea coast, and called Westland. Although situated in the midst of the clay district, this spot is sandy. It was formerly covered with embankments, but for more than four centuries, the work of reducing them and removing the sand elsewhere has been carried on at a cost so enormous, that the value of the land seems hardly to repay it. The proximity of populous cities, affording a ready market, has enabled Westland to acquire its extraordinary fertility. It is a perfect garden, where cultivation has almost worked miracles; for, with a soil naturally poor, and with a rigorous climate, it produces exotics which do not always thrive even under the gentle skies of Nice. Near Haarlem, are to be seen large breadths of tulips, yacynthos and jonquils, whose bulbs are exported to all parts of the world. The charming village of Bloemendale, 'the valley of flowers,' sent forth bulbs to the value of nearly £200,000 sterling in 1862. Roses are here grown on a large scale for their blossoms, which are used for perfumery, besides plants used in medicine, asparagus, figs, early beans, immense nurseries of fruit trees, and of trees for ornamental planting; and lastly, magnificent grapes fit for a royal table. The gardeners of Belgium and Paris, now so skilful, were the pupils of the gardeners of Westland."

It is very clear how this remarkable culture originated. The merchants of Holland drew their wealth from traffic; all their energy was directed to navigation. They possessed little land, and preferred to invest their spare capital in the public funds, national or foreign. This explains how it was that landed property fell almost entirely into the hands of the country people. Moreover, the grass district required only a pastoral routine of the simplest kind, and did not involve the employment of much capital. The merchants were then satisfied with a country house, or a villa and garden, built upon some sandy elevation above the high level of the waters, and not far from the city; and there the men of business came for retirement. The rich capitalists spared no expense in adorning their retreat. They prided themselves in collecting the rarest flowers, and the most exquisite fruits. This taste in time became general; and the number of small country houses, kept up with the greatest care, has become immense.

(To be Continued.)

### The Practical Entomologist.

A MONTHLY Bulletin, published by the Entomological Society of Philadelphia, for the dissemination of valuable knowledge among Agriculturists and Horticulturists. Issued monthly from the Hall of the Society, No. 518 South 13th Street, Philadelphia.

We have already shewn our appreciation of this valuable periodical by various references to it, and extracts from it that have appeared from time to time in our Entomological columns; we think, however, that it justly merits some more special notice from us. The first number was issued on the 30th October last, and consisted of eight large octavo pages wholly devoted to the consideration and elucidation of the natural history of the different species of insects injurious to vegetation. As the Entomological Society of Philadelphia, whose enterprise it is, desired no pecuniary recompense for their praiseworthy efforts in this field of science, the paper was sent to any one applying for it, at the mere price of the postage. Before six months, however, had elapsed, its circulation increased so enormously—to about 8000 copies, we are told—that the Society found themselves compelled to make the small annual charge of fifty cents, in order to cover the cost of the paper on which it is printed. At the same time its size has been increased from eight to twelve pages.

The number for June opens, we regret to find, with an article entitled "Shall this paper be continued another year?" We had hoped that there could be no question whatever of its continuance, but the editors state that owing to the present high price of paper and labour, they cannot undertake its publication for another year unless they have some reasonable assurance that it will be self-sustaining. All they require is that they should obtain at least 5000 subscribers, at fifty cents per annum,—a by no means unreasonable demand when we consider that they now distribute *gratis* nearly double that number of copies. Surely all those who have been thus receiving the paper for nothing during the current year, must feel themselves bound in honour to pay the trifling sum required to keep it up for the future. As the Editors very justly say, "If the information imparted by the paper is not worth the small sum of fifty cents a year, it is not worth anything, and it is sheer folly for any one to expect the Committee to continue its publication, which is of no benefit whatever to them, at their own expense, for the benefit of those to whom the information is valuable." They, therefore, request that all who wish to subscribe for a copy for the second year, commencing with October 1866, should forward their names and addresses as soon as possible, but they do not require the subscription to be sent till the first number is received.

We trust that many of our readers will join in subscribing to this valuable little paper; they can rest assured that they will be well repaid for doing so. The numbers that have been already published contain many articles of great usefulness, among which we would mention particularly that on "Borers" by Mr. Walsh, the Associate Editor. One great feature of many of these articles from which they derive not a little of their value, is the attempt that is made to show the absurdity, if not positive injuriousness, of a large number of the popular remedies for insects that from time to time "go the rounds" of the papers. In the last number, for instance, there is an excellent article on the folly of driving nails into fruit-trees for the purpose of warding off the attacks of insects, which appears to be a favourite application just now!

We wish the Society every success in its praiseworthy undertaking, and hope that all who suffer from noxious insects—and what farmer or gardener does not?—and all interested in the study of Natural History, will unite in rendering them every necessary encouragement.

## Toronto Electoral Division Society.

### SUMMER EXHIBITION OF HORTICULTURAL PRODUCTS.

THE Toronto Electoral Division's Summer Exhibition of horticultural products was held in a spacious tent in the grounds of the Horticultural Society, on Thursday, 19th ult. Cut flowers, fruit, and vegetables were distributed round the outer table, while the central space was occupied by two tables on which were arranged a fine display of stove and green-house plants. The productions in every class were creditable, and, in some instances, very choice. Nothing shown, however, demands any particular mention. Many of the choicer plants exhibited have been before described in our columns, and to frequenters of floral displays, in this city, many of the specimens were old acquaintances. We would mildly suggest that some of these old frequenters of the exhibition table be left in peace in their respective green-houses, on the occasion of the next show, and that some other specimens, new if possible, be taken out for an airing. More variety, and a considerably augmented list of amateur competitors, are required by this Society before its mission as an educational organization—can be satisfactorily performed. Horticulture should be more encouraged in this city, and the Society's directors and committees should work harder. Hamilton, with fewer facilities, can sustain a flourishing Society; but then this result is only attained by energetic unanimity of action among those in authority, as well as among members and competitors. We speak advisedly when we say that Hamilton is thoroughly canvassed every year for subscriptions towards this object. Why should not a similar movement be inaugurated in Toronto?

## Preparations for the coming Provincial Fair.

The Local Committee, in charge of the arrangements at the Crystal Palace for the approaching Provincial Exhibition, have now begun their duties in earnest, and though a little tardy in this respect, have made up for the delay by a business-like determination to push forward the much-needed repairs and alterations, so that the whole may be completed in ample time for the fair. The estimated expenditure is \$3,500—a sum which, although not sufficient to make all the repairs needed, has yet been judiciously appropriated to meet the most pressing wants, among which is an increase of accommodation for exhibitors. This has been met by an excellent arrangement of the northern sections of the grounds, by which the transept of the main building will be connected on this side with the long shed formerly used as a machine shop, which will now be refitted and cleaned up for the horticultural products on exhibition. The long building thus erected to connect the main building with this wing will be exclusively appropriated to the fine arts show; thus relieving the gallery by withdrawing from it one of the two chief attractions to the multitude—the pictures and ladies' work—and leaving the latter in almost undisturbed possession of this large area of the building. This consideration on the part of the gentlemen of the local committee will no doubt result in a surpassing effect on the part of those most directly interested in the change. The new building to be erected in the space proposed will be 61 by 60 feet, and will open by large doors from the palace itself. It will be lighted with lantern roofs in the ordinary manner of picture galleries, and so arranged as to give entire walls to this section of the exhibition. It will at the same time be a pleasant intermediate spot between the main building and that containing the display of fruit and flowers to which it will form the entrance. The latter will be floored and enclosed with windows and otherwise adapted to the purpose intended. To the north of this building a poultry shed, 250 feet long, is in course of erection, and a short distance from these, it is proposed to erect a temporary building for reapers and mowers, to take the place of the machine shed otherwise appropriated. Four hundred permanent sheep and one hundred pig pens are in course of erection in the eastern section of the grounds. The Committee rooms, also, which now stand in an inconvenient position in the centre of the field will be removed to the western gate where they will be in a less obtrusive locality, and the feed barn will for the future be placed in the centre of the square of stables near the Asylum wall. The other sheds are at present in excellent order, and, with little repair, will serve to answer their purpose. The Northern Railway propose to construct two platforms on their line, convenient to the ground, and run trains from their new station on the Esplanade, south of the City Hall, to the grounds, at convenient intervals. By separating the passengers "arriving" and "departing" on different platforms, it is expected that a great crush will be avoided, while, as a further convenience, it is proposed to sell admission tickets to passengers taking this route to the grounds at the railway station, thus obviating the necessity of a second crowding to obtain the tickets which might as conveniently be had in one.

## Hamilton Horticultural Society.

### SUMMER EXHIBITION.

THE Summer Exhibition of this flourishing Society was held in the Dr.'s Shed, Hamilton, on Wednesday, the 11th ult. The weather was delightfully fine; the number of competitors was moderately large; the vegetables and flowers on exhibition were very choice; and the arrangements were in the highest degree satisfactory. The display of greenhouse plants, especially fuschias, as might have been expected, was somewhat inferior to the splendid collection that we had the pleasure of inspecting at the Spring Show of the Society. This deficiency, however, was more than compensated by the excellence of the productions shown in other departments. Vegetables and fruits especially were deserving of very high commendation. The potatoes, turnips, lettuce, onions, carrots, cabbages, cauliflowers, beets, &c., &c., testified, not only by the number of entries—amateurs as well as professionals,—but by their size and quality,

to the care bestowed on their cultivation, and to the favourable conditions of soil and climate in which they had been produced.

The fruit classes were well filled, when the season is considered. Many of our more excellent exhibition fruits do not attain perfection till the autumn shows. Bearing this fact in mind, the late display could not be regarded otherwise than a great success. Strawberries, cherries, red and black currants, gooseberries and melons, together with a few dishes of last year's apples—in splendid preservation—covered a centre table some thirty yards in length. Among this collection a fine dish of the "Agriculturist" strawberry—a new variety—from the nurseries of Messrs. Bruce, Hamilton; a fine plate of raspberries grown by Thomas Bachman, gardener to Mrs. W. P. McLaren, and a magnificent melon grown by the same exhibitor, were especially deserving of notice and commendation. One of the most gratifying features in the fruit department of the Show was the number of amateur competitors, and the fine specimens of culture which they exhibited. In flowers and vegetables, too, the amateurs of Hamilton are formidable rivals of the professional horticulturists. To this encouragement of non-professional competition, much of the success of the Hamilton Horticultural Society is attributable. Before exhibitions of useful and ornamental plants become popular with the masses, the extension of garden and window plant culture must be energetically fostered and encouraged. This the Hamilton Society has done and the results of its efforts, as evidenced by the competition to-day, must have amply repaid the Directors for all the exertion they have bestowed.

In flowers the display was very creditable. A fine collection of Gloxinias, in pots, was especially fine. Cut flowers were exhibited in great variety, and some of the bouquets reflected great credit on their exhibitors. A magnificent collection of flowers graced the north-west tables; while on one of the central tables some large boxes of choice flowers bore testimony to the taste and interest that are evinced in window gardening by the Hamiltonians.

The Exhibition was extremely well patronized by visitors during the afternoon and evening. In every respect, therefore, the President, Officers, and Directors of the Society must experience a pleasing gratification in finding that their labours are appreciated by the citizens of Hamilton.

## The Cattle Plague in Ireland.

RESPECTING the report of this dreadful disease having appeared in Ireland, Professor Lowne, who was appointed by the Government to investigate the cases of disease which had taken place in the county of Down, has published his report, in which he pronounces the disease, in the cases examined by him, to have been cattle plague. He considers that the system of establishing "cordons" and slaughtering the animals which were known to have been exposed to infection, has, in all probability, prevented the extensive spread of the disease. He concludes by saying that—

"It only remains to remark that there is a disease prevalent among the cattle in different parts of Ireland even more rapidly fatal than the cattle plague. From *post-mortem* examinations which have been made of animals that have died of this affection near Dublin, and also in the north of Ireland, I have satisfied myself that it is identical with the disease which exists among cattle in the Isle of Man. I need only remark that while the *post-mortem* appearances are, in many particulars, allied in the two diseases, the symptoms exhibited by the sick animals are totally dissimilar."

An outbreak in county Meath, the heart of the cattle districts, would be a very serious matter, much more so than anything that has as yet occurred in Ireland, and we learn with regret that the result of the investigation made by Professors Ferguson and Browne is an opinion on their part, that the cases in question were cases of plague. A cordon has been established round the farm.



The following paragraph appeared in a recent issue of the *Irish Farmers' Gazette*.

"At a meeting of the Cattle Plague Committee, held at the Mansion House, on Thursday last, the Lord Mayor referred to a conversation he had had with Professor Ferguson, respecting the reported cases of *Rinderpest* in the county Down, to the effect that—'If any member of the committee doubted the next case of *Rinderpest* that appeared in the Drumra district, he would be glad the gentleman would put it to the test by placing one of his own stock beside the animal.' We (that is, the proprietors of the *Farmers' Gazette*), accept Professor Ferguson's proposal, and undertake to forward to any part of Ireland a healthy cow from our own herd, to be placed beside any animal that Professor Ferguson may select as a case of *Rinderpest*; and we shall send our own man to attend upon the cow, night and day, until the case has been fully tested. And further, in the event of the death of our cow, we shall contribute the sum of £20 towards getting over Professor Gamgee, Professor Simonds, or Dr. Smart of Edinburgh, to make the *post-mortem* examination, provided the Government sanction the same, and let the decision of any of those eminent men be final."

From more recent British files we gather that the investigations of Dr. Browne and others, places the fact that the cattle plague exists in Ireland beyond a doubt.

VERMONT FARMER.—The *Vermont Record*, an excellent weekly published by D. L. Milliken, Brattleboro, Vt., has recently been changed from a 16-page quarto to an 8-page double quarto (about the size of the *Rural*), and part of the paper is now devoted to Agriculture under the heading of *Vermont Farmer*, with this affix to the title—"Vermont is the leading Agricultural State in New England, producing the most Horses, Sheep, Cattle, Butter, Cheese, Wheat, Oats, Hay, Hops, Wool and Maple Sugar." The portion of the paper thus devoted to Agriculture is well filled, and we wish the combined *Record* and *Farmer* augmented prosperity. \$3 a year.

## Agricultural Intelligence.

### The Crops.

NORTH OXFORD.—The prospects are that the farmers will have the satisfaction of reaping an abundant harvest this season. The oldest farmers in this locality say that the crops are better this year than they have ever known them to be in Canada before.—*Woodstock Sentinel*.

EMILY.—The crops in Emily are thus far very promising. Spring wheat and barley look exceedingly well, and equally with all other spring crops promise a yield far in advance of previous seasons. The fall wheat, though much improved, will fall short of an average crop. The copious rains of the 10th have refreshed and invigorated all growth.—*Lindsay Post*.

GRANBY, C.E.—The *Gazette* of the 13th says:—The late refreshing rains have had a very beneficial effect upon all growing crops, which look exceedingly promising. A recent trip in the township convinced us that vegetation is maturing fast, and we shall soon hear the cheerful swarth of the scythe and the merry sound of the reapers gathering in the abundant crops. Some of our farmers informed us that they should commence haying next week.

CORNWALL.—Everywhere in this locality the crops of all kinds have a most luxuriant appearance. Finer wheat and barley are rarely, if ever, seen in Canada. Potatoes, for a long time backward, are now coming on finely; and, although a few of the early planted perished before growth set in, yet the appearance at present indicates an abundant crop. Other root crops, not having suffered from the cold spring, are in a very thriving condition. The hay crop, too, could not be excelled by the standard of average growth. In fact a good time generally is looked for by the farmers, and certain it is that no one grudges it to them.—*Cornwall Freeholder*.

FERGUS.—We hear of a few of our farmers in the neighbourhood who have begun to cut their hay crop. In some cases it will be light, but generally will be better than prospects in the early part of the season seemed to indicate.—*Fergus Constitution*.

CAYAGO.—It is with unfeigned pleasure that we refer to the excellent reports which we are receiving from all parts of the country concerning the crops. From present indications there seems no reason to doubt that this year's yield will be far more abundant than that of 1865. We could fill two or three columns with extracts from our contemporaries, all of which, with but very few exceptions, contain most gratifying intelligence. The only crop about which any doubt has existed is the Fall Wheat, and even that has been wonderfully improved by the genial sunshine and growing showers of the past few weeks. The prospects of Canada for the future are indeed most encouraging, and call for renewed gratitude and thankfulness on the part of its inhabitants.—*Cayago Sentinel*.

HASTINGS.—Not for six years has there been such a prospect of good spring crops as the present season. There has been a large breadth of ground sown to spring grain, and from every quarter we hear the most flattering accounts of its appearance. Fruit too, promises to be an abundant crop. The season has thus far been favourable for hay and vegetables, and altogether there is every prospect of a bountiful harvest.—*Belleville Intelligencer*.

MORRIS AND GREY.—Wheat.—The Fall Wheat has been severely injured by the winter frost, so that, on the whole, wherever farmers have gone very extensively into this crop, it is certain to be a losing concern, but as this is a spring wheat growing country, the loss will not be very much felt in general. Spring Wheat promises fair for an abundant harvest. Oats.—There is every appearance of this being a good crop, and farmers who have gone into it largely appear to be well satisfied. Barley.—This crop is not sown very extensively in this part of the country. The few specimens we have seen, however, are very encouraging. Peas.—We witnessed Peas in blossom to-day. They bid exceedingly well for a fair crop. Potatoes.—This vegetable appears to produce a plentiful crop. The late rains have favoured them very much. Turnips.—These appear to have, so far escaped the ravages of the fly, and our farmer's are beginning to hope for an abundance of winter feed for cattle. Beans.—These seem to have suffered very severely in some of our gardens, from the late spring frosts.—*Goderich Star*.

Co. SIMCOE.—The *Simcoe News* states that from all parts of this county we hear most promising accounts of the crops generally. From other counties there come rumours of the ravages of the midge and weevil but the damage is represented as but trifling. On the whole there is every indication that we shall have an average crop in fall wheat, and more than average in spring grains and roots.

NORTHUMBERLAND.—The *Brighton Dispatch* says:—In conversation with farmers, all report the crops as magnificent. Never was there a better prospect of an abundant harvest in the East Riding of Northumberland. Hay is heavy, and hay making has begun. If present prices continue—and we see no chance of a heavy decline, especially when we contemplate the new markets that are in process of being opened in the Eastern Provinces for our surplus grain—the farmers have before them golden prospects, which we hope they may fully realize; and even should the decline in prices be considerable, the surplus yield must make the remuneration very gratifying.

THE MIDGE IN DEREHAM.—We deeply regret to learn that the midge has appeared in the wheat in the township of Dereham and in other sections of the county. In some parts the crops will prove a total failure. Oats, peas, barley, &c., never looked better. The hay crop will also be a good one.—*Ingersoll Chronicle*.

THE MIDGE.—We are sorry to learn that this destructive pest has appeared in some of the earlier sown Spring wheat, and in sufficient quantities to cause serious apprehensions. The high winds and frequent rains prevent the insect working to such good advantage, but still it is doing damage. A field of Spring wheat owned by Mr. James Copeland, just outside the town limits, which is extremely early, and promises a most extraordinary yield, if left alone is affected by the midge, some heads yielding hundreds of the destructive little worms. There are a few who believe that the insect will not do much damage except to the early sown wheat.—*St. Catharines Journal*.

Red squirrels seem to be unusually plentiful and bold this year. Several have been chased in open day in the streets, and they are proving particularly destructive in fruit gardens and orchards.—*Fergus Constitution*.

BEXLEY.—An Agricultural Society has been organized for the Townships of Bexley, Laxton and Digby. A good number of members have already enrolled their names.—*Lindsay Post*.



### Protecting Cucumbers, Melons, and Squashes.

AFTER trying various modes for protecting melons and cucumbers from the striped bug and other insects we find the following superior to any other. Two small twigs of osier or other slender wood, about a foot and a half or two feet long, are bent over the hill of young plants and the ends thrust in the ground as represented by fig. 1. A newspaper is then placed



upon these curved sticks, covering the whole, and the edges are fastened down all around by a covering of earth as shown in fig. 2. This constitutes the



whole contrivance, and affords complete protection from all insects; the paper being thin and porous, admits a sufficient supply of air and light, at the same time sheltering from cold winds. Plants thus protected have grown twice as fast as those fully exposed. Another advantage of this mode is the protection it affords from night frosts, rendering it admirably adapted to plants which have been early removed from the hot-bed. Lastly and not least, is its cheapness. A gardener will apply it to a dozen hills in as many minutes, by the watch, the material costing nothing to any one who takes a political newspaper.

Unless the paper is very thin and fragile, heavy rains will not break it. Strong plants will sometimes burst through; but a better way, when they become large, it is to tear a hole in the top, as shown in fig. 3,

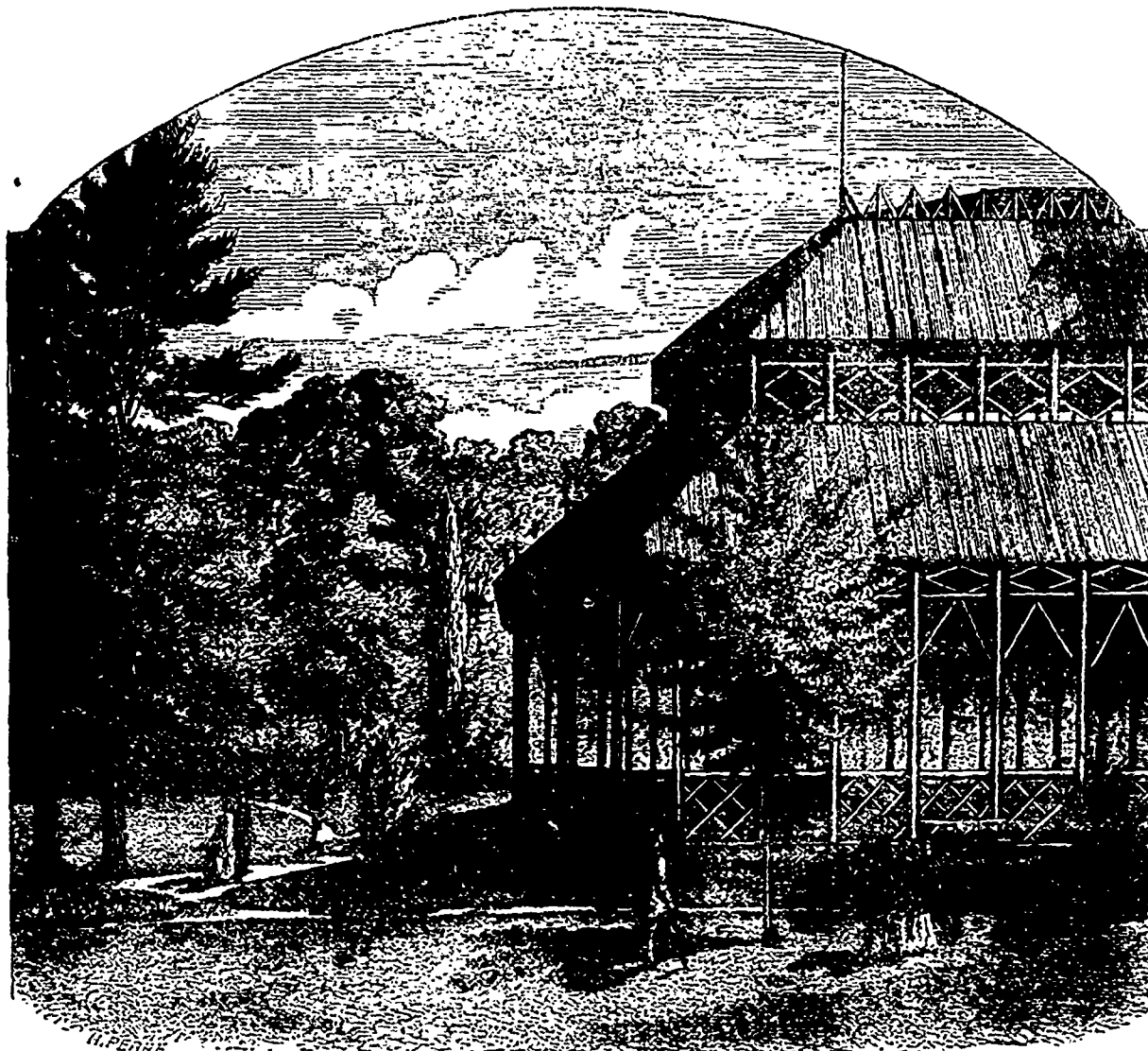


the remaining paper at the sides still affording some protection, although plants of this size are usually safe from injury.

We obtained the suggestion from some paper, but improved upon it as above described.—*Ex.*

A horticulturist advertised that he would supply all sorts of fruit trees and plants, especially pie-plants of all kinds. A gentleman thereupon sent him an order for one package of custard-pie seed, and a dozen mince-pie plants. The gentleman promptly filled the order by sending him four goose eggs and a small dog.

BEAUTIFUL PETUNIAS.—Every time within the last month which we have cast an appreciative eye upon those flower-beds by the side porch where we welcome the morning light and take leave of it again in the evening, we have turned to admire a couple of petunias in the lot sent us by Mr. Hanford of Columbus—the "Gen. Sherman" and "Phil. Sheridan," by name upon the labels. Gen. Sherman is the size of a large convolvulus, pure white splashed with crimson—or crimson splashed with white, there being about an equal division of colours regularly distributed in half leaves all around the flower. This is a very striking figure upon the flower bed. Phil. Sheridan is very double, almost like the largest double balsamine, of a very rich purple colour. These two splendid flowers do no discredit to their gallant namesakes.—*Ohio Farmer*.



HORTICULTURAL GROUNDS, TORONTO.

Grounds of the Horticultural Society, Toronto.

THE PRINCE OF WALES MAPLE.

We herewith present our readers with a splendid illustration of a portion of the fine grounds of the Horticultural Society of this city. In the foreground is a truthful representation of the Maple planted by His Royal Highness the Prince of Wales on the occasion of his visit to this city on September 12th, 1860. In the background is shown a portion of the huge rustic pavilion erected for His Royal Highness' reception. It is an oblong building, about 100 feet long by 60 wide, built entirely of cedar. Much taste and skill have been displayed in its construction, and regarded in its position—in the centre of a horticultural garden—the spectator cannot do other than pronounce it unique and appropriate.

The Prince of Wales Maple, has in popular parlance, "never looked behind it" since the day it was planted. Not only has it maintained a vigorous growth; but its habit, as will be observed in the cut, is particularly graceful. Should no unforeseen calamity occur, there is every prospect of this fine tree remaining a lasting souvenir of the Prince's visit. And,—anticipating the future some twenty years,—it may then be somewhat interesting to compare the tree as it appears now in our pages with the large development, we trust, it will then have reached.

We reprint from the files of the *Globe* the account of the ceremony of planting this fine tree by his Royal Highness. In reply to an address read to him

by the President of the Society—The Hon. G. W. Allan—The Prince replied:

"GENTLEMEN,—I shall have great pleasure in doing anything which will tend to encourage amongst you a taste for the cultivation of gardens such as may increase the comfort and enjoyment of the citizens of Toronto. I shall be content if the tree which I am about to plant, flourish as your youthful city has already done."

"While the operation was being performed, all present had a good opportunity of looking at the Prince. There was some little confusion at first owing to the perverseness of the many who, while crying loudly to others to sit down, will stand up themselves. The ladies are the worst—not that they make the noise, but they heard it so little. If a man persists in standing in the road, his hat is often summarily knocked over his eyes; and in the grinning countenances he sees upon turning round, he is left to discover the culprit as best he may. But the softer part of creation are not thus to be disposed of; they obstruct the view when they like, and leave it open when they please. Yesterday, they were obliging and sat down when called upon; though the first sentences of Mr. Allan's address were lost while the reform was being accomplished. So the view obtained of the Prince by all was good; in popular parlance, they had "a splendid look at him." Well this finished, His Royal Highness descended the steps of the pavilion, and turned to the spot where he was to plant the maple tree, but a very short distance from the pavilion. The tree was in a box, for at this season of

the year had the earth been taken from its roots, little prospect would there be of its remaining as a lasting memorial of the Prince's visit. It was suspended over a bow, and at a signal given, was lowered to the bottom. His Royal Highness then shovelled in two or three spadefuls of earth which lay near by, and the ceremony was complete."

Upper Canada Fruit Growers' Association

PROCEEDINGS AT THE RECENT MEETING AT ST. CATHARINES.

The meeting was convened at 2 o'clock in the Town Hall, St. Catharines, the chair being occupied by W. H. Mills, Esq. First Vice-President of the Society.

The Minutes of last meeting were read by the Secretary, D. W. Beadle Esq. and on motion confirmed.

The meeting then proceeded to the discussion of CHERRIES.

*Governor Wood* was the first variety under consideration. Mr. Arnold of Paris said "the tree is tender but bears well in sheltered valleys." Mr. Smith of Grimsby has not found it quite hardy in his locality. The chairman has found his trees at Hamilton quite hardy. Dr. Cross of Grantham lost his two trees in the severe winter of 1864. Mr. Murray of Hamilton has found the tree a moderately good bearer and pretty hardy.

*May Duke*, according to the experience of Mr. Arnold, has not done so well of late. "It thrives best in the valleys." Mr. Smith said his trees "ripened very irregularly this year. It is valuable as a

cooking cherry." Dr. Cross finds it a good cherry, does well, and bears well. Mr. Murray is troubled with *Curculio* very much in this and all the thin-skinned sorts. Mr. Morse of Smithville finds it a good variety, hardy and productive.

*Elton* was reported by Mr. Smith to be "a very fine cherry, and one of the hardiest of its class." Messrs. Morse and Arnolds expressed the same views.

*Black Tartarian*.—Mr. Smith thinks this the finest black cherry we have. Dr. Cross finds it a sparse bearer. Mr. Murray said "it does well about Hamilton." Mr. Morse finds it a good, but rather a shy bearer. He has "lost two or three fine trees, possibly because they find the clay bottom too soon." Mr. Beadle spoke of a disease that affects this variety seriously; the bark on the trunk becomes dead in patches and an exudation of gum ensues, sometimes causing the death of the tree. Mr. Arnold said that other varieties were subject to the same disease.

*Black Eagle*, Mr. Murray said, is a good cherry, bears pretty fairly, and the tree is hardy at Hamilton. Mr. Parnall of Grantham has not "found it a good bearer, the tree is hardy and the fruit of good quality."

*Napoleon Bigarreau*.—Mr. Parnall has found this tree hardy, and believed it to be a fine and valuable cherry. Mr. Paulding had found the fruit this year very liable to rot on the tree.

*Early Purple*.—Dr. Cross reported to be a small cherry, very early, prolific and valuable.

*Yellow Spanish*.—Mr. Paulding thinks a fine fruit, but a shy bearer.

*Empress Eugenie*.—a new variety—was exhibited by Mr. Murray. "It was imported from Vilmorin, France, and was first fruited in pots. It is one of the best for this purpose, but it stands and bears well outside. I have some trees that have been planted out six years, they come into bearing early, and are very prolific. One of the specimens—about 7 or 8 feet high yielded this year two bushels of fruit. It is of the *Duke* class." Moved by Mr. Arnold, seconded by Mr. Parnall that the *Empress Eugenie* Cherry be placed on the list for trial. Carried.

*Coe's Transparent*.—Mr. Morse reported to be a "large, juicy, pulpy fruit, sub-acid, hardy, and productive."

#### GOOSEBERRIES.

Mr. D. Murray exhibited 12 varieties of English Gooseberries with little or no mildew. They were: Whitesmith; Conquering Hero; Austin's seedling; Ploughboy; Ranger; Lancashire Lad; Roaring Lion; Golden Lion; Phoenix; Aster; Warrington; and Lake Yellow. Of these he prefers Conquering Hero and Whitesmith for bearing well, large-sized fruit, and exemption from mildew.

Mr. Goldsmith exhibited 17 varieties of Gooseberries, and said that of these he had found only the Whitesmith and Yakesby's Hero to resist mildew. Downing's Seedlings Nos. 1 and 2 were exhibited by Mr. Arnold. The former is an "immense bearer, white berry, of very good quality, and does not mildew, is not, however, so large as the English varieties. No. 2 is something larger than the Houghton seedling, is a red berry, not as valuable as No. 1." Mr. Beadle has No. 1 and esteems it highly.

#### RASPBERRIES.

Mr. Arnold exhibited a number of seedling Raspberries—a second generation of crossing the Belle de Frontenay on the White Cape. The berries were of medium size and fair flavour. The plants were said to be perfectly hardy. *White Marvel of four Seasons*, Mr. Arnold stated to be the hardiest of all the foreign raspberries. At the same time he exhibited a sample of the fruit.

The Chairman showed some particularly fine samples of Cherry Currant. He kills the currant worm by brushing it off the bush with a broom, and then employs the "stamping out" process.

Mr. Arnold exhibited a portion of the limb of an apple tree that appeared to have been neatly cut off by some insect.

Pursuant to notice of motion made by Mr. Clarke at last meeting the proposed alteration in Art. III of the Constitution so that the second clause should read thus—"Two other general meetings shall be held, at such times and places as shall be determined at the January meeting"—was regularly submitted and unanimously carried.

On motion of Mr. Arnold, the meeting was adjourned till the first Wednesday in October, and to take place at Grimsby.

## The Household.

### Homedale Farm.

#### MORE ABOUT THE BEES.

A FEW days after hiving the swarm, Mr. Perley resolved to see how they were getting on, and whether they were building their comb straight upon the frames. So providing himself with a pan of coals and a little touch-wood to raise a smoke, he put on his bee-veil and gloves, and commenced operations. Following carefully the directions given in the bee-books, he first blew a few whiffs of smoke in at the entrance to the hive, then he removed the hive a few rods away from the stand, took off the cover, lifted the honey-board a little, and blew some smoke among the bees on the top of the frames. As soon as the smoke came among the little creatures they ran down the frames, leaving the tops of the frames quite deserted. Mr. Perley then took off the honey-board and honey-box, and prepared to lift out the frames. It being his first experiment in handling bees, he was astonished to find how quiet the smoke made them. He would have felt quite nervous without the veil and gloves, yet really he did not seem to need them, for scarcely any bees buzzed about him, and those that did so made no angry noise, but were evidently good-natured. Turning down the revolving bands, he found the ends of the frames filled with propolis or bee-glue, but prying them carefully with a chisel, they were easily loosened. Commencing with the third frame from the side opposite him, he moved it out of its place towards himself as far as it would come without crushing the bees; then he moved the second frame in the same way, and thus there was room enough made to lift out the first frame. To his great surprise it was more than one-third full of comb and honey. The bees made no fuss, but kept moving about in a peaceable sort of way. Setting down the rame outside the hive, and leaning it against the hive, he took out the other frames one after the other. They were all one-third full of comb, if not more, and it was made nice and straight. So his examination was quickly over, the frames were replaced, and the hive was set on its stand again.

This little operation was gone through very early in the morning before the family were astir, Mr. Perley preferring to make his first trial with the bees by himself. At breakfast however, he told the young folks what he had been doing. They were very much interested, and asked if they might look on next time. Their papa told them that in about a fortnight he should examine the hive again, to see if it was time to let the bees into the honey-box, and then he would show them the inside of it, if they would stand very still and not come too near. Accordingly one pleasant evening, Mr. Perley told them it was about time to see if the bees were ready to work in the box, and he was going to open the hive. So Mrs. Perley and the children stood off some distance, and when the bees were smoked, Mr. Perley called them to come nearer. They did so, but timidly kept a respectful distance from the hive. Mr. Perley began to take out the frames, and behold the first outside frame was quite heavy with honey. It was pretty well filled, and looked so white and pure and tempting, that Mrs. Perley begged that they might have the contents of it. All the frames were nearly full, the inside one having a great deal of brood comb in the centre, with honey all round the brood comb. Mr. Perley showed the family the young white grubs in the cells, the capped cells containing worker brood, also those containing drone brood, which were larger than the others. He would have shown them the eggs, but they did not dare come quite close enough to the hive to see the little things. While they were looking on, a straggling bee suddenly flew into Lucy's face, and alighted near the corner of her eye. Mr. Perley had told them all not to fight the bees if any should alight on them, so Lucy kept still. But she could not help

screwing up the corner of her eye when the bee crawled towards it, and this perhaps pinched the bee a little. At any rate it stung her. But she did not cry out, or get excited. She only said very quietly, "Papa, I'm stung." Mr. Perley replied, "I was afraid you would be when I saw that bee alight on your face so near the corner of your eye. Go quickly into the kitchen and moisten the place with the blue-bag. But be sure and pull the sting out first." Lucy did as her papa told her, and soon came back with the blue-bag tied on her face, declaring that the sting hardly hurt a bit. Before closing up the hive, Mr. Perley took a card of honey off one of the outside frames. There was plenty of white clover bloom, and the colony of bees was a strong one, so that he thought they would soon build and stock another card in place of the one he took away. Having gently brushed the bees off the comb with a goose-wing, he carried the frame round to the kitchen, laid it on a large dish, and cutting the comb with a knife close to the frame, easily detached it. He half regretted taking the honey, it looked so straight and nice. He would have preferred to have left the hive full and waited until the box was filled. However, it would be quite a luxury on the tea-table, and he was rather pleased that his bee investment was yielding a return so soon.

That same evening though he feared there was hardly time enough to do it, he undertook to transfer the bees from the old stock hive into a moveable comb-hive. When his preparations were fully made, he hesitated about going through with it, because it was so near night. However, he decided to proceed. So having blown a few puffs of smoke in at the entrance of the old hive, he carried it a few rods away from the stand, to a spot where he had placed a table, the new hive, and the other things he thought he should need. When at the place, he raised up the hive, and blew more smoke into it. Then he turned it upside down, set an empty box on the top of it, and commenced rapping on the sides of the hive to make the bees go up into the empty box. While he was doing this, Charley was whittling out some little pins and fitting them into a gimlet hole. His papa had also given him four frames from the inside of the hive into which the bees were to be put, that he might bore some holes in the sides to put the pins through. The shades of evening began to gather before Mr. Perley got through hiving the bees. He remembered having read somewhere that bees grew very stupid towards dark, and were apt to crawl up one's clothes. So he hurried all he could, and would not let any one come near while he was at work. Lifting off the the box he found the bees were not all out, but he dare not wait any longer, so he set the box on one side, and proceeded to open the old hive by pressing off the side parallel with the combs. When that was off he began to remove the comb. He had a large honey-knife with a saw on the back of it to saw off the cross-bars which are put in common box hives to support the comb. This he found very useful, indeed he did not know what he should have done without it. After he had got out three or four flakes of comb, he proceeded to fasten them into the frames of the new hive. He laid the comb flat on a table, then measured the size of the inside of a frame, and cut the comb to fit. Then laying the frame on the fitted comb he pressed it down until it surrounded the comb, when he pushed in the pegs Charley had whittled, and put the frame into the new hive. He only got two full frames, and was obliged to patch the other two with bits. They were only partly filled, but it was getting so dark that Mr. Perley could not venture to stay to take out any more comb, or do his work more thoroughly. So he placed the new hive on the table, let down the bottom-board, and proceeded to shake the bees out of the box in front of the entrance. Brushing them with a goose-wing towards the entrance, he got most of them into the hive. But a number settled on his clothes and crawled sluggishly over him, appearing unable to find their way to the

hive. He winged as many as he could into the hive, then shut it up, and carried it to the same stand as had been occupied by the old hive. His job was unfinished, but there was no help for it. The rest must be left until morning. Mr. Perley was vexed at himself for attempting the thing so late, yet he hoped it would all go right. He thought the queen was in the new hive and believed that the rest would find their way to her in the morning. At any rate it was dark, and he could only leave matters as they were until daylight. The next thing was to get rid of the bees that were on his own person. He pulled off his veil and shook it, drew off his gloves, and took off his coat, laying them on the grass while he went into the house and by the help of a light picked off the bees that yet remained on him. As he went toward the house he felt one getting down his neck, but taking it gently out with his thumb and finger, escaped being stung. When he had obtained a light, he found a number of bees yet crawling about him, which he gently brushed off at the outer door, after which he picked up his gloves, veil, and coat, gave them another good shaking, and suspended operations till daylight should appear. He felt very anxious however, not liking to make a failure of anything he took in hand. When he went to bed several questions troubled him. The weather had been thundery, and quite a severe hail-storm had lately visited that neighbourhood. What if another such storm should come during the night, and the hail cut the bees to pieces that were not yet hived? Had the queen bee got into the new hive? If not might not the whole colony go off to the woods? What if the queen-bee had fallen into the grass and got crushed to death. These and like questions perplexed him. However, he resolved to be up by peep of day, and take care that the bees did not decamp at any rate. But his sleep was very broken. He had queer dreams about bees. Now they were angrily buzzy about him, now they were crawling over him, and now they were actually stinging him. It was mosquito time, and the occasional whirr and sting of one of these little blood-suckers helped to lend reality to his dreams. He was glad when at length daylight came to his relief. Happily there had been neither rain nor hail. The bees were just as he had left them. There were a number got in the old hive, and some in the box he had used to transfer them with. Providing himself with smoke, he hastened to finish the job. He soon drove the rest of the bees out of the old hive into the transfer-box. He brought the new hive from its stand to the table again, and got the remainder of the bees in without difficulty. While they were going in he examined the grass all about, but saw no dead queen. Indeed there were very few bees in the grass dead or alive. He began to think he had done better than he feared. He could not put any more honey-comb into the body of the hive, but concluded to fill the honey-box and leave the bees to carry it down-stairs to the first floor of their house if they liked. After stocking the honey-box, he had considerable old honey left, and several clean bits of comb which he thought would be useful to fasten to frames in empty hives, to make new swarms more contented. By the time the family was moving all was done, the new hive was on its stand, and the bees had apparently betaken themselves to work. At the breakfast-table they had another family chat about the bees. What with the card of new comb, and the remaining honey in the old hive, there was quite a good supply for the table. Mr. Perley amused the family with the tale of his bee-dreams, and told them his resolution was fixed never again to undertake such a piece of work so late in the evening. Early morning he felt sure was the best time to operate among bees.

To be Continued.

The best toast of the season was, we think, given by a printer, viz:—"Woman—the fairest work in all creation. The edition is large, and no man should be without a copy."

How to make an Omelet.

A GENTLEMAN of letters, who has lived considerably abroad, at a recent visit to the Community, praised the French style of cooking, and remarking that he had himself a natural taste for gastronomic art, offered to show the ladies of the Community how to compound an omelet in the French manner. This was readily acceded to, and the party adjourning to the kitchen, the gentlemen took charge of the materials and the cooking, while the ladies looked on. The result was a breakfast-dish of so much that we think we shall do our readers a favour by describing it. Those who partook of it were unanimous in saying that they had never eaten a preparation of eggs and milk so palatable and wholesome. The following was his method of making an omelet: Beat up one dozen eggs with a small cupful of new milk; salt to your taste. Have ready on the stove a large frying-pan or drifter; let it be sufficiently hot to melt a small piece of butter, just enough to grease the pan so that the egg will not stick to it; pour in enough of the egg to cover the bottom of the pan very thin; move the pan gently, first raising it on one side and then on the other, so as to expose the egg evenly to the heat. In a moment or so the egg next to the pan is jellified; then peel it up from the pan with a spoon, and roll it lightly over and over till the whole comes off, and then it is sufficiently cooked, and may be put into a nappa and kept hot (not cooked any more,) till another portion of the egg is cooked in the same way as the first.

The important thing in this process is to cook the egg evenly, and so slightly that it does not pass from the jelly stage, which is delicious and wholesome, to the spongy stage, which is tough and indigestible.

The necessity of cooking a dozen eggs in three or four different portions, arises only from the smallness of ordinary frying-pans. A drifter exposing a larger surface to the heat could cook more at one time. An omelet for one person, composed of two eggs and a tablespoonful or two of milk could be cooked at once in a common frying-pan. The one we have described above of a dozen eggs would be enough for four or five persons.

"A parisian cook," said our visitor, "will serve you up an omelet cooked in this way that will stand two or three inches high, and quiver and shake like a mass of jelly. To please an epicure he will sprinkle in some sprigs of parsley chopped fine, or thin shavings of ham, some kidneys chopped—or garnish the dish with nice apple-sauce or jelly." But minus these appetizing additions, we can truly say that the omelet we tasted this morning, cooked by our guest's own hands, was altogether the best we ever ate.—The Circular.

DYSPEPSIA A DISEASE OF THE WHOLE BODY.—Dieting is a very good thing in dyspepsia—indeed it is a necessity. But we lay too much stress upon the stomach. The stomach is all. We are constantly working with this, when it is the whole system that is prostrated by inaction, the great source of disease. The grand cure here comes in: "Remove the cause." This, of course, may be aided by other means. Employ exercise, and you stir up the whole system—not the stomach only, as is the case with medicines and dieting. In dyspepsia, then, the stomach suffers only with the rest of the members. The grand cure is, removal of the cause, which generally is a lack of exercise. Exercise is enjoined upon man as a necessity to health. If we remit it, we suffer the penalty—the stomach only with the rest of the organs—more so than some of them, because more sensitive.

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v3-15-14.

TRIAL OF IMPLEMENTS.

A GENERAL TRIAL OF MACHINES AND AGRICULTURAL IMPLEMENTS, under the direction of the Board of Agriculture for Lower Canada, will take place in MONTREAL at the end of AUGUST and SEPTEMBER. Ten days notice will be given before the day appointed. Entries in the ditto rent series to be made before the 15th of each month. All other particulars and information to be had from the Secretary of the Board of Agriculture.

G. LECLERE,

615 St. Jacques Street, Montreal.

v3-15-21.

CREDIT SALE OF FARM STOCK AND IMPLEMENTS.

MR. GEORGE MORLEY will sell by public Auction, on Saturday, the 15th of August next, all the Farm Stock and Implements on the farm occupied by William Scott, 5 1/2 miles East of New Hamburg, in the County of Waterloo, consisting of the Vista Steeple and Implements found on a well cultivated farm. The Stock are all grades, with the exception of one Yearling Short-horn Bull and Heifer, and one Cow of 4 Ram.

Sale to commence at 1 o'clock p.m.

v3-15-14

SAFER THAN OIL LANDS!

FOR SALE

LOT 1, Kerr Tract, Township of Brantford, containing 110 acres in the highest state of cultivation. This farm is about 100 miles from Paris and Brantford.

Apply (if by letter postpaid) to

ROBERT REDPATH,

Notary, P. O.

Or to

THOMAS B. McMAHON, Solicitor, Brantford.

Also for side North-west part lot 18; 11th Con., Brantford, 50 acres

Apply to

T. B. McMAHON, Solicitor,

v3-13-4t.

Brantford.

VETERINARY SURGEONS.

VETERINARY SURGEONS practising in Canada, holding Diplomas of any recognized schools, are requested to send their names and addresses, and also the Colleges in which they studied, and the date of their Diplomas, with a view to publishing a list of the members of the Profession in Canada.

Address, "TORONTO VETERINARY SCHOOL," Box 571, Toronto

v3-7-17

LANDS FOR SALE.

TWENTY THOUSAND ACRES OF LAND, both wild and improved, and at all prices, for sale in various townships throughout Upper Canada, cheap and on easy terms.

For lists and particulars, apply to the proprietor,

T. D. LEDYARD, Barrister, &c.,

South-west cor. of King and Yonge Sts., Toronto.

Toronto, Oct. 2, 1864.

v3-19-17



PROVINCIAL EXHIBITION

OF THE AGRICULTURAL ASSOCIATION

OF UPPER CANADA, TO BE HELD AT TORONTO, On the 24th to 28th September, 1865.

Persons intending to exhibit will please take notice that the Lists of Articles in the respective classes must be made with the Secretary, at Toronto, on or before the undermentioned dates, viz:

Horses, Cattle, Sheep, Swine, Poultry, on or before Saturday, August 14th.

Corn, Field Beans, and other Farm Products, Agricultural Implements, Machinery, and Manufactures generally, on or before Saturday, September 1st.

Horticultural Products, Ladies' Work, the Fine Arts, &c., on or before Saturday, September 16th.

Prize Lists and Blank Forms for making the entries upon, can be obtained of the Secretaries of all Agricultural Societies and Mechanics' Institutes throughout the Province.

HUGH C. THOMSON, Secy. of Agriculture Toronto, July 25, 1865.



BRADFORD FOUNDRY.

The undersigned having for several years been doing business in the County of Simcoe and surrounding country in selling ploughs and agricultural implements, by means of pedlars, and on long credit, and believing that a safer and more advantageous business for both parties could be done for cash, (as in settling on credit the good paying customer has invariably to pay the large profit to pedlars for losses by bad ones, and expense of peddling, collecting, &c.) takes this opportunity of informing his many friends and customers that he is now manufacturing and selling ploughs very much lower than ever he has before done, giving to the farmer what is usually given to the pedlar, collector, &c., which will be a saving of one-third, viz:

- No. 3 Plough, Steel Mould Board, \$13, formerly \$19. with steel land bar, \$14 50. Nos. 5, 6 and 13, same price.

No. 3 plough was exhibited at ten agricultural shows last year, and from the ten shows took seven first and two second prizes.

The same plough is used at four ploughing matches within the last twelve months, competing against some of the best Scotch ploughs in the country, and was always successful in taking the first prize at each match. The above plough is a soil plough, and Nos. 5, 6, and 13 are general purpose ploughs.

Persons wanting money in register of letters for any article of the undersigned's manufacture, may order for the number at his risk, or they can purchase at a slight advance from his local agents through the country.

Persons ordering ploughs are requested to be careful to give the number of the plough, and to state what kind of beam they wish metal or wood.

BRADFORD, July 20, 1866. V3-15-14.

ITALIAN QUEENS.

DETERMINED that my stock shall be unequalled by any in Canada. I have, in addition to last season's importation, imported 8 beautiful Golden Queens, from the best breeders of the Eastern and Western States. Breed where these queens obtained such secure the most perfect development. They are no black drones kept in my apiary for without the assistance of my subscribers, giving much useful information about the Italian bee, and People's Bee Hive.

Address, A. N. HENRY, Oshawa, C. W. V3-15-11.

IMPORTED SHEEP.

This Subscriber has for sale some first class specimens of

PURE LINCOLN AND LEICESTER RAMS, Imported from England, 1866. J. SEPH KIRBY, Millon, Hallon Co., C. W. V3-15-21.

THE CITY OF QUEBEC AGRICULTURAL SOCIETY will sell by Auction, at Pauls Market, Quebec, on Friday, the 2nd of August, next, at 11 o'clock a.m. their Imported thorough bred pure Lincolns, by descent, out of May Day.

These are beautiful animals, 7 years old, and has been standing for many years for the past three seasons, and has proved a good soil getter. He is half brother to two Derby winners. Further particulars will be made known by the undersigned. W. MOORE, Sec. Treas. C. Q. A. S. V3-15-11.

Quebec, July 10th, 1866.

SHEEP MARKS.

DANA'S PATENT EAR MARK supplies the only RELIABLE means yet invented of marking and (with the Register) keeping a correct record of a flock of Sheep. Agents wanted in every Township. Where I have no agents I will send 120 free by mail on receipt of \$3. All particulars with samples sent on application with stamp to pay return postage.

See CANADA FARMER, May 15, 1865, and June 15, page ARCHIBALD YOUNG, Jr., Manufacturer, Sarnia, C. W. V3-15-11-c1

Markets.

Toronto Markets.

"CANADA FARMER" Office, July 31, 1865.

Trade continues dull in all branches of business; the markets are devoid of speculative feeling, and transactions are measured by the consumptive demand. Flour remains steady. Dealers persist in neglecting the market, and but a single sale is reported to day on 'Change. Wheat is dull and heavy. A few sellers make their appearance, but there are no buyers. The bright prospects of the new crop exercises a depressing influence upon the markets, and buyers will only offer terms that no one will accept. In the wool market there is little doing, and prices are rather weaker. Provisions are inactive. The latest New York quotations report the receipts there rather more liberal, but the quality of the stock coming forward rather inferior. Butter shows the effect of the recent warm weather, and will not bring full market quotations.

The price of Hides has advanced considerably in this market in consequence of the rise in the eastern markets. Green butcher's hides are now bringing 6c per lb.; trimmed and cured hides 8c. Montreal markets are firm, green hides 7c to 7 1/2c; trimmed and cured 8 1/2c to 8 3/4c. Chicago markets are quoted, green salted 11 1/2c to 12 1/4c.

The following is the report of prices on the Corn Exchange to day:

Flour—Receipts, 200 bbls; sale, 500 bbls, F. O. B., No. 1, guaranteed Montreal inspection, at \$5. Very little offering. Fall wheat flour dull, no sales. Wheat, no receipts. 500 bushels fall offered at \$1 25, without buyers. Small lots spring offering without drawing bids. Oatsmeal, receipts 90 bbls. No sales reported. Buyers offering \$1 25, holders asking \$1 50. Peas, none offering. Oats in better demand, 4,000 bushels offered at 31c F.O.B.; buyers offering 33c. Wool selling at 31c. In bills, market without animation. Provision market extremely dull.

Montreal Markets.—July 30—Laidlaw, Middleton & Company, report—Flour—receipts, 1,107 bbls; market dull and nominal, retail sales of superfine at \$5 90 to \$6. Nothing doing in round lots. Wheat nominal. Corn sales at 55c. Oats dull. Peas—No sales. Hides—pots, \$5 45 to \$5 50; inferior at \$5 to \$5 20, peals \$6 75. Butter, dairy, at 15c to 15c.

Milwaukee Markets, July 30.—Wheat—Receipts 17,000 bushels, opened at \$1 72, declined at \$1 66, and closes firm at \$1 65 for No. 1, f.o.b. No 2 scarce at \$1 52. Flour nominal at \$3. Freight on wheat to Kingston 13c.

Chicago Markets, July 30.—Wheat—Receipts 3,600 bushels, No. 1 weak and nominal at \$1 52. Corn active at 59c; receipts 164,000 bushels.

Boston Markets.—Herrings are in moderate demand at 58 to 60c per box. Flour—The market for all kinds is dull, and prices have a downward tendency. Canada is in moderate demand. We quote superfine at \$9 25 to \$9, common extra \$9 75 to \$11; medium do \$11 25 to \$12 50, good and choice do \$13 to \$14 75 per barrel. Grain—The market for corn remains dull. Western mixed 90c to 95c per bushel. Oats are without material change. Ordinary qualities are abundant, but choice are scarce. Sales of Western at 60c to 70c; Canada 55c to 87c per bushel. Rye is lower. Sales in small lots at \$1 05 to \$1 20 per bushel. Shorts are selling at \$22 to 25; Fine Feed \$3 8 to \$30; Middlings \$23 1. \$25 per ton. Provisions—Pork is without variation with a steady demand. Sales of prime at \$27 to \$27 1/2; mess \$32 60 to \$33 60 clear \$37 to \$38 now held at \$40 per barrel, cash. Beef is scarce and the market is firm. Sales of mess at \$20 to \$21 50; extra mess, \$23 to \$24 50; family, \$25 to \$26 per barrel, cash. Lard is in moderate demand. Sales in bbls at 21c to 22c per lb., cash. Smoked hams are selling at 21 1/2c to 23c per lb., cash. Produce—Butter is without change. The demand is moderate. Sales of choice New York and Vermont at 39c to 42c; medium grades 25c to 28c; Western 20c to 26c per lb. Cheese is plenty and the demand quite moderate. Sales of farm dairies at 16c to 19c.

Albany Live Stock Market.—Beef.—The advance on cattle, noticed by us yesterday, prevailed to the close. There was a good demand for the Eastern markets, as well as for New York, and the supply being comparatively light, holders were able to maintain their views with more than ordinary firmness. Prices.—extra \$9 50 to \$10 00; first quality \$8 50 to \$9 00; second quality \$7 50 to \$8 25; third quality \$7 00 to \$7 50; inferior \$6 to \$6 50. Sheep.—The demand has been moderate throughout the week, especially for the Eastern trade, and there has been but little change in prices. The range is from 5c to 6 1/2c per lb., and from 8 1/2c to 9c for lambs.—Argus

New York Markets.—July 30.—Cotton is more firm at 26c to 27c for middling uplands. Flour—receipts, 18,000 barrels. The market is dull and declining; sales 6,000 barrels at \$5 60 to \$7 60 for superfine State, \$6 75 to \$8 25 for extra State, \$9 30 to \$9 75 for choice do, \$9 60 to \$7 10 for superfine western, \$6 65 to \$8 50 for common to medium extra western, and \$9 15 to \$9 50 for common to good shipping brands extra round hoop Ohio. Canada flour is dull and nominal at \$5 40 to \$9 50 for common, and \$9 50 to \$12 for good to choice extra. Rye flour quiet. Wheat—receipts, 1,832 bushels; the wheat market is dull, heavy, and nominal; sales, 1,600 bushels white Canada, at \$2 35. Rye—receipts, 8,000 bushels, rye market is quiet, sales, 5,000 bushels Western at 82c to 85c, and 1,600 bushels State at \$1 10. Barley—receipts, none, barley is dull. Corn—receipts, 70,579 bushels, the market is 1c to 2c lower; sales, 11,000 bushels, at 62 1/2c for un-sound, 8 1/2c for sound mixed Western, and 85c for Western yellow. Oats—receipts, 21,258 bushels, the market is heavy, and 1c lower; sales, 20,000 bushels, at 45c to 47c for Chicago, 48c to 50c for Milwaukee, 54c to 57c for Iowa, 61c for Jersey, and 62c to 63c for State.

Latent Markets.—Flour closed dull and declining; wheat closed dull and nominal, corn closed 1c to 2c lower, pork closed more firmly—new mess, \$31 60, cash, lard closed firmer, but quiet, at 18c to 20 1/2c.

Contents of this Number.

Table listing contents of the issue with page numbers. Includes sections like THE FIELD, STOCK DEPARTMENT, THE DAIRY, VETERINARY DEPARTMENT, ENTOMOLOGY, THE APIARY, BRITISH GLEANINGS, CORRESPONDENCE, EDITORIAL, AGRICULTURAL INTELLIGENCE, HORTICULTURE, and THE HOUSEHOLD.

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Communications on Agricultural subjects are invited, addressed to "The Editor of the Canada Farmer," and all orders for the paper are to be sent to GEORGE BROWN, Proprietor and Publisher.