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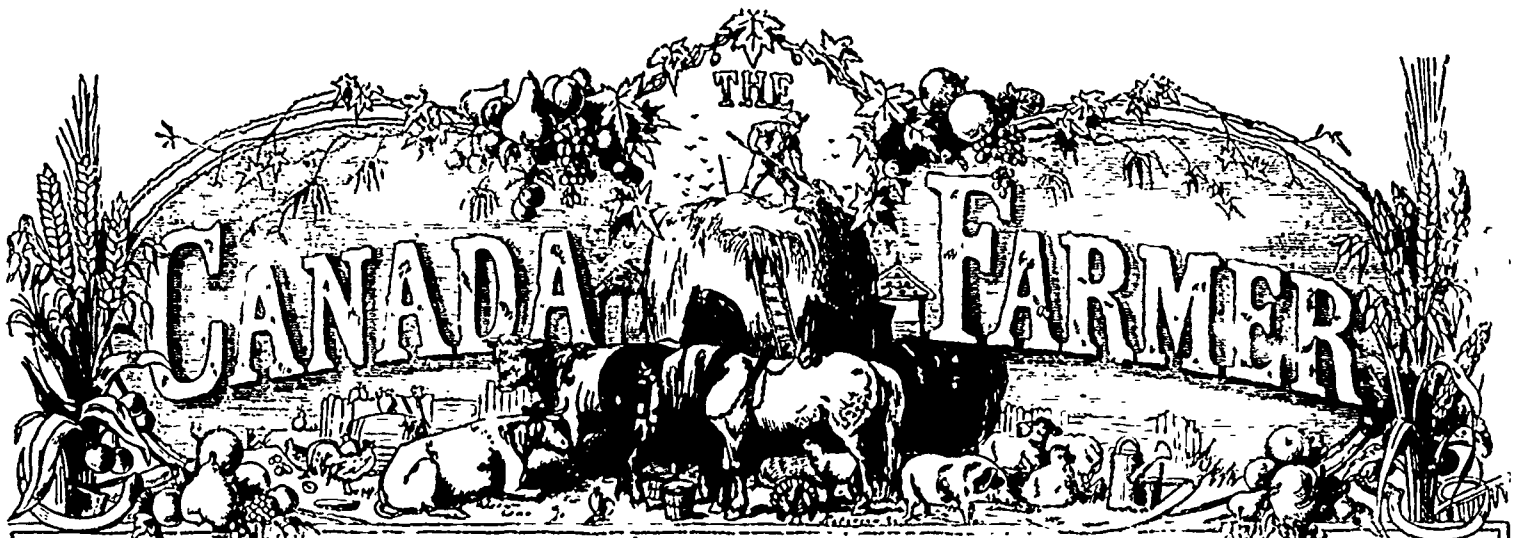
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TORONTO, UPPER CANADA, OCTOBER 15, 1866.

POSTAGE FREE.

The Field.

Value of Wood Ashes for Manure.

At this season of the year, when the increased consumption of wood for fuel has commenced, it may not be out of place to remind our farmers of the value of wood ashes as a manure. We say "remind," for scarcely any farmer needs to be informed of the fact, which has been repeatedly noticed in every agricultural publication, and which his own observation must have verified. He can hardly fail to have been struck with the remarkably luxuriant growth of grass or grain on those spots where a log-heap or brush has been burned. And in his kitchen garden, he has, no doubt, seen evidences of the value of this fertilizer in the increased productiveness of those portions of the ground on which, perhaps only for the convenience of getting rid of refuse, wood ashes have been scattered.

To retain all their virtue, it is highly important that ashes should be kept dry; for water will dissolve out a large proportion of the most valuable salts, yet even leached ashes need not be thrown away, as of no account: for, though far inferior in fertilizing qualities to unleached ashes, they are by no means useless. One very important result of the employment of this manure in the growth of cereals is the increased strength and luxuriance of straw thereby promoted—a result due to the presence of silicates on which so much of the stiffness of the straw depends. Other ingredients, essential to both straw and grain are furnished by this important fertilizer. Ashes are valuable also for promoting the growth of grass, and Professor Leibig recommends sowing them broadcast on meadows, to increase the quantity of hay.

In reference to the utility of this much-neglected aid to the farmer, a writer in the *Country Gentleman* says:—"Several salts are necessary for a full growth and maturity of a wheat crop. In using the superphosphate of lime, the farmer uses but one of the salts necessary for the perfection of a wheat crop. But in the use of ashes the farmer applies to his land, besides the several salts of potash, more or less of several other salts, no less valuable, according to the kind of timber from which the ashes were produced. Ashes from the beech contain nearly 20 per cent. of the salts of phosphoric acid. According to the analysis of De Saussure, one hundred pounds of ashes would be sufficient for the production of 3,820 pounds of straw. But, besides the other salts of potash, the ashes either furnish, ready prepared, or produce after being put upon the land, a good supply of the silicate of potash, a salt as necessary as any other salt of potash, or even as any salt of phosphoric acid. But the ashes, besides furnishing several important salts, may perform another office in the economy of agriculture, no less important. In the

preparation of compost, they may be used as a solvent, to convert into important manures many other things useless without being dissolved. And this, too, without destroying any of their efficacy as salts. They give compactness to light sandy soils, and render heavy clay soils light and friable. They serve, too, to neutralize whatever superabundance of acids there may be in any soil."

We earnestly recommend the farmer carefully to save for use in the spring all the ashes he can collect from the home consumption of fuel during the winter, and, where he has opportunity, to procure from other sources a supply, leached or unleached, of this valuable fertilizer. If people knew from experience the worth of this simple manure, there would be no ashes wasted, neither would there be any to sell, except by those who have no soils to improve, or no crops to raise.

Top-dressing Grass Lands.

It was justly considered the height of unreasonableness and exactingness in ancient days, that an oppressed people were compelled to make brick without straw. While the necessary material was withheld, the full tale of product was expected and demanded. Something not unlike this injustice is to be seen in the treatment to which meadows are frequently subjected by their owners. They are mowed year after year, and if they do not maintain the point of productiveness they reached at first, complaint is made as if some grievous wrong had been done the proprietor. Now repeated mowings are very exhausting, and unless manure is applied in the shape of top-dressing, it is unreasonable to expect that meadows will maintain their fertility. We should like to know how many Canadian farmers ever think of top-dressing their grass lands. We are persuaded their number is but small. It is the subject of wide complaint that meadows in this country are soon exhausted, and do not hold out as they do in Britain. One reason for this is the practice of repeated mowing without manuring. We know several intelligent agriculturists on this continent who maintain that there is no necessity whatever for breaking up mowed land, and declare as the result of actual trial, that if a meadow be only treated to liberal doses of manure, it will continue to yield heavy cuttings of hay year after year. The liquid droppings of horses and cattle should be carefully collected for this purpose. Liquid manure is the very best application that can be made for the purpose of keeping up the fertility of grass land. In the vicinity of Edinburgh, Scotland, meadows have been made to produce six or seven crops of grass annually by a plentiful application of liquid top-dressing, obtained from the city sewerage. The description of grass which furnishes these abundant crops of soiling is generally Italian Rye Grass,

a species which grows very tall and produces fodder very much relished by horses and cattle. Every farmer should have a liquid manure tank, into which the urine of stock should be conveyed by a drain-pipe from the stable, byre, and hog pens. This should be applied to the land with a watering cart constructed especially for the purpose of distributing it evenly over the field.

Instead of the liquid manure being distributed by means of a watering cart, it may be used first to saturate muck or compost, which is afterwards put on the land in the shape of top-dressing. Its effects are more lasting when thus applied than when it is conveyed to the land as a liquid. We have no doubt that a great deal of valuable meadow land is deteriorating for want of a more just and common-sense mode of treatment. Top-dressings of liquid or solid manure, bone dust, guano, ashes, &c., will be found of immense benefit applied to such lands. The fall of the year is a good time to make such applications. The late autumn and early spring rains wash the fertilizing material into the ground, so that the following year a very perceptible improvement may be confidently expected, as the result of the course recommended in this article.

Familiar Talks on Agricultural Principles.

ROTATION OF CROPS.

CONSIDERATIONS of profit or convenience alone often determine the question what crops are to be put into a given piece of land. Sometimes mere impulse is acted on. But there is no subject connected with practical farm-work that more needs to be settled according to fixed and well-known principles of agricultural science. There need be no difficulty in determining to what use a particular field ought to be devoted. The question what product is it most fit for, will readily settle the matter.

If every field on a farm could be treated each year to a liberal dressing of barn-yard manure; impulse, accident, profit or convenience might decide the use to which it should be put, without any very serious detriment. But only a small part of a farm at a time can be well manured. The crop that is first put in after land is dunged, takes up certain kinds of plant food. If the same or a similar crop be put in next year, more of the same kind of plant food is abstracted, and this course cannot be long pursued without rendering the land utterly incapable of yielding that particular crop. But if after the first crop that succeeds a liberal manuring, a crop of a totally different kind be cultivated, other descriptions of plant food are drawn upon, and the drain upon the soil is less severe. The fundamental fact in regard to a rotation of crops is, that no two plants of different kinds, require the same substances in equal proportion for their nourishment. A field which will not yield a second good crop of wheat, may, without another

dose of manure, give a good crop of clover, turnips or other roots. Thus it is usually regarded as an important rule in good farming that no two white or grain crops shall follow in immediate succession. This rule is not, however, considered as absolute and literal in its application, for while the Norfolk farmer takes his crops in this succession: 1. *clover*; 2. *wheat*; 3. *turnips*; 4. *barley*; the Lancashire farmer with equal success grows, 1. *grass*; 2. *green crops*; 3. *wheat*; 4. *oats* or *barley*, his two green crops following one another, and his two white crops doing the same. There is, however, in this case a balancing as it were of two grain crops by means of two green crops. It should be a settled rule that the exhaustive crops are never to be grown in succession, unless the land has become to possess a considerable degree of fertility, so as to bear without injury, such a tax upon its productive energies. The chief principles on which a rotation of crops is based are these:

1. A fertile soil contains all the food required for the nourishment of every description of cultivated plants, but while this is the case, the supply needed by a particular plant is but limited.

2. Some plants draw their nourishment from near the surface, while others obtain their food from a greater depth.

3. Some plants derive a large proportion of nourishment from the atmosphere, while others depend almost, if not entirely, upon what they extract from the soil.

4. Certain crops furnish support to particular insects.

Hence one crop should be followed by another that requires for its nourishment substances differing as much as possible from those that have just been drawn upon. A surface-feeding crop should be followed by one that goes down deeper for nourishment. A crop that derives its food principally from the soil, should be followed by one that draws largely from the atmosphere. A crop should follow its predecessor such as is best calculated to exterminate the insects that preyed upon the previous one. It may be added that by growing a variety of products, the occasional failure of one is not so keenly felt, its place being supplied by others. As an example of the practical application of the foregoing principles, we quote a rotation instanced some years ago by Mr. William Boz, of St. Laurent, and which has been largely practiced with excellent results. Of course this is but an illustration, and in practice it may be departed from, and a different plan based upon the same principles. Other plans of rotation have been suggested in previous numbers of THE CANADA FARMER, to which reference may be had for additional illustration and example.

PLAN OF ROTATION.

"Divide the arable portion of the farm, whatever may be its size, into six parts, as equal as possible, with a direct communication from the barn-yard to each field, and from one field to the other, so that the cattle may pass from one to the other when required. This division into six fields, may require on most farms new fencing, and it will be proper, beforehand, to see how this can be done with the least possible expense. I shall now suppose the farm prepared to receive the application of this system, and that is the one which I have found the best for even the poorest settler.

1st. Root crops, such as potatoes, carrots, beets, parsnips, &c. [turnips and also flax], and in cases where the land is not sufficiently open for a crop of this kind, the field must be left in fallow

- 2d. Crop of Wheat or Barley.
- 3d. Crop of Hay.
- 4th. Pasture.
- 5th. Pasture.
- 6th. Crop of Oats or Peas.

In beginning the application of this system, that field of the series which is in the best condition for a Root crop, should be called field A. The best for Wheat or Barley B That which is actually in Hay C The Pasture fields D & E That which is best for Oats or Peas F Each field for the first year ought to be appropriated to the crops above mentioned. The culture of

field A and of crop No. 1, come up together for the first year, and ought to be the object of special attention, as this is, in fact, the key to the whole system; for the good culture of this field has for its object, and ought to have for its effect, not only a good crop for the first year, but also to improve the land for the five other years of this Rotation of Crops.

In the following year, the cultivation of the different crops will be according to the following order.

Crop No. 2 in the field A			
Do.	"	3	B
Do.	"	1	"
Do.	"	5	"
Do.	"	6	"
Do.	"	1	"

and so on, changing each year until the seventh, when crop No. 1 will come back to field A, and the whole will then be in a good state of fertility, and free from weeds. The above system has been proved to be capable of restoring old land, and extirpating all weeds.

Stones on Cultivated Lands.

Is it an error to suppose that stones should be entirely removed from land which is under cultivation. The stones, which would be in the way of the scythe while mowing, of course should be removed, but all the smaller ones should remain: and if wholly or partially embedded in the soil, they preserve the moisture during the drought, and thus serve materially to increase the crop. The following article, from the *Gentleman's Magazine*, published in 1773, is in point:—

It has been long known to experienced farmers, that taking away very small stones and flints, is detrimental to ploughed lands in general, but more particularly so to thin, light lands, and all lands of a binding nature. It was, however, never imagined that the damage could be so great, as it is now found to be, since unusual quantities of flints and other stones have been repeatedly gathered for the use of turnpike and other roads. In the parish of Sterenage, in Hertfordshire, there is a field known by the name of Chalkdell field, containing about 200 acres; the land in this field was formerly equal, if not superior, to most lands in that county, but lying convenient for the surveyors of the roads, they have picked it so often, and stripped it of the flint and small stones to such a degree, that it is now inferior to lands that were formerly reckoned not much over half its value, acre for acre. Nor is it Chalkdell field alone that has materially suffered in that county by the above mentioned practice, several thousand acres bordering on the turnpike roads from Welton to Baldock, have been so much impoverished, that the loss to the inheritance forever must be computed at a great many thousand pounds. What puts it beyond a doubt that the prodigious impoverishment of the land is owing to no other cause but picking and carrying away the stones, is, that those lands have generally been most impoverished which have been most often picked, nay, I know a field, part of which was picked, and the other part ploughed up before they had time to pick it, where the part that was picked lost seven or eight parts in ten, of two succeeding crops; and though the whole field was manured and managed in all respects alike, yet the impoverishment was visible where the stones had been picked off, and extended not an inch farther; an incontestible proof of the benefit of the stones."

Subsoiling Land.

A CORRESPONDENT of the *Rural New Yorker* enquires if it will pay to subsoil land, and when is the best time to do it. Our contemporary replies by enumerating some of the good effects of subsoiling, and we clip the following from its article on the subject:

Land may be made very productive by simply pulverizing the soil to a minute degree. This operation renders the plant-food contained therein available to the growth of the crop. It adds nothing to what was previously there, but opens the way for the roots of plants to reach and appropriate the entire nutriment in the soil. For this object we plough and harrow. But the subsoil plan goes deeper and obviously opens new and rich sources of mineral food to the searching roots of our grasses and cereals. Deep ploughing, with an ordinary implement, is not always wise, for the reason that it throws on the surface a soil deficient in vegetable mould, which forms a poor seed-bed to support the first and most feeble growth

of the young plant. But sub-soiling—the loosening of the under soil without bringing it to the surface—throws open to the vigorous roots of the plant rich sources of food. Sub-soiling should follow under draining. On strong loams or clays it is of the greatest use, in pure sands of the least. Where clay underlies sand, so close to the surface that it may be reached with the sub-soil plough, it is of great benefit to use it. The best time to sub-soil is in the autumn, the frost and the air go down. The water settles early in the spring. The labour of subsoiling in the fall is much more, however, than in the spring."

"Thistle-ish."

UNDER the above heading, the *Prairie Farmer* publishes a batch of correspondence concerning the extermination of the Canada thistle. We select the following:

"Simon" writes:

A sure and effectual cure for Canada thistles in pastures, is to salt sheep on them twice a week, during one whole season. Sow salt broadcast; one hundred sheep to the quarter acre patch. Sure cure, only take care none spring up around the edge of the patch."

G. D. C. has known cutting when stalks are hollow, and salting for sheep to eat off, &c., to be ineffectual in New York. His father finally exterminated a patch in the door yard, by cutting stalks as close to the ground as possible, and covering the roots with flat stones or boards. Rather impracticable we should say, out west.

Jonathan Reade Sen., of Marshall county, Iowa, destroyed them in Ohio, by cutting them all off with a hoe, three or four times during the season.

H. M. Thompson, of Scott county, Iowa, says: "Observing considerable interest manifested at present on the best method of eradicating the Canada thistle, I think that my experience with that pest may be of some value to the readers of THE FARMER and I give it for what it is worth.

"Several years ago I purchased a small quantity of white clover seed in Davenport and sowed it on a small lot intended for a permanent pasture. In the course of a year or two after, I discovered some thistles such as I had often seen in Scotland, but never in the western States before. By applying to a neighbour who had lived in Canada I learned that it was the Canada thistle. I took a large sack, a butcher knife and a bucket of salt and went to work. I cut off all the thistles I could find, put them in the sack and covered the root with about half a teacup full of salt, and carefully turned the thistles in the stove. I kept watch on the place and had to perform the same operation every three or four weeks for the whole season. The next spring they came up as numerous as ever, and I changed my tactics and tried the plough. I ploughed the piece of ground (some five or six square rods) every month or oftener during the season till frost, and now nine or ten years have been added to my life but no more Canada thistles have annoyed me. I suppose I got a seed or two of Canada thistles thrown in when I bought the clover, but I have been very careful not to buy any eastern raised clover seed since."

PICKED FORAGE. As regards pickling fodder, we saw it done in Germany, and on this wise. Several pits were dug in the clover field, about ten feet deep, with the same width and length; these were lined with loose boards, and the clover thrown in green, as cut, and thoroughly trampled down by two men; the surface of every layer, about a foot or eighteen inches in thickness, was whitened with salt: layer was added to layer, and trampled as above and salted, until the pit was filled with a comparatively solid mass of clover. A rude covering of boards was then put over the whole, sufficient to turn rain, a slight trench, such as a soldier digs around his tent—and the operation was then complete. We were told that after fermentation, the mass was cut out through the winter with sharp spades, fed to stock of all kinds, and devoured with great relish. We were informed, moreover, that the process applied as well to pea vines, the leaves of the Jerusalem artichoke (*solanum tuberosus*) and to the leaves of certain forest trees. When we consider the difficulty of curing for winter's use, all the more succulent varieties of herbage, and the immense annual loss of that most valuable of all forage plants, clover, in the curing, it is to be hoped that some one will have the nerve to give a fair trial to this Prussian process; they will be eagerly imitated in the use of the needle gun, and in the art of destroying, why not in that of sustaining life.—*Cor. of Turf, Field, and Farm.*

Stock Department.

Vices of Horses.

Idle horses, or those not working very hard, are apt to acquire habits that are very annoying, as cribbing, weaving, pawing, dislike to go through a doorway, kicking the sides of the stall, &c. The first is considered by many unsoundness, as well as a disagreeable habit, and they would reject a horse, no matter how good, or ever so well suited to the business they wanted him to perform, if he possessed this trick. I do not look at it in this light, and apart from the annoyance of listening to the sound usually made by those addicted to the habit, I am not aware that it injures the animal. The idea that they "suck wind" enough to make them any more liable to colic or rupture of the intestines, is certainly false in all that have come under my observation. One of the finest "gentlemen's horses" I ever knew was a confirmed crib-biter. He was a large, brown gelding, nearly sixteen hands high, stylish and showy, had trotted in 2:28, could pull a waggon almost that fast, gentle and reliable in every place. If there was anything he could lay his teeth on he was sure to crib, yet always kept easy; would stand an immense amount of work, and trot long distances, never, to my knowledge, sick a day in his life. The last I knew of him, he was owned by a gentleman in Cincinnati, who valued him very highly for his many good qualities. When horses have once acquired this habit, I doubt if they ever forget it. By having a box or stall sealed up perfectly smooth they cannot get hold of anything, and few horses will crib if thus kept, though some press their teeth against the smooth side and accomplish it. There is a muzzle made, through which horses can pick up their feed without being able either to bite or get hold of anything with their teeth. It is made with two small iron bars, joined to the nose band of the halter, far enough apart to allow motion of the lips sufficient to pick up their food.

Weaving is another very perplexing habit, acquired from I know not what, and once learned I could never cure. Fretful, high-tempered horses are most prone to acquire it, and when at full work generally quit of their own accord. Some horses cannot be easy till they have pawed their bedding quite out of the way, leaving them a bare floor to lie on, soiling their clothes and hair in a manner not very agreeable to the groom, his duties thereby being much increased. Turning loose in a box will sometimes cure this evil, or by a clog fastened above the knee. When this is done there should be a pad applied to the shin, to keep the clog from injuring the very sensitive membrane covering the tendons. From having been led carelessly through a doorway, where they have been injured, horses are afterwards fearful at attempting the passage, and when urged to do so will go through with a bound that adds greatly to the danger. Compel the groom to get the horse square with the door before leading him out, holding him firmly by the halter, so that the leap cannot be made, never urging him to go faster than the slowest pace; in no case permitting a blow to be given. Rather than use force, either blindfold or back him out, until the fear is overcome by judicious usage.

Kicking the sides of the stall is a very unfortunate custom some horses possess, and no amount of punishment will cure one that has become determined in the practice. Clogs and whips are of no avail, and there seems to be almost a species of insanity compelling them to kick away till their legs are bruised and swollen from the blows. I had one very fine horse that I tried every method of cure I could hear of without effect. When he was shackled, of course he could not kick, neither could he lie down, and I have kept him standing for a week, when in less than an hour after the straps were removed he would fall to kicking as furiously as if the lost time had to be made up. I cured him by putting him in a stall about the width made in livery stables, the sides of the same length as the horse when standing with his head at the manger. A bar was dropped behind his quarters to keep him from backing. Through the sides of the stall a slot was cut large enough to admit a plank two inches thick and eighteen inches wide. This plank came within half-an-inch of his loin, and of course he could not raise himself to kick. It was amusing to watch the rage he would get in in finding his most violent efforts frustrated. I looked for him to strike with one foot, and intended, if he had done so, to let a shofl extend on each side as high as his gaskins, which would have prevented that. The plank over the loin, however, cured him, and after going from my stable into a stall that had not these appliances, I never heard of his relapsing into his former bad practice.—*Colman's Rural World.*

Age at which Bulls should be Used.

We clip the following from the *Farmers' Magazine*:—"We have seen a letter from a short-horn breeder, in which the writer considers that bulls in the present day are used at too early an age, and is of opinion that modern short-horns are less in size and not so robust as they were formerly, in consequence of the youthfulness of sires. 'Short-horn breeders,' he says 'are ruining their herds by using young bulls. Bulls should not work before they are two years old, and not come into heavy work before three.' Unfortunately, the first three volumes of the Herd Book are often so defectively supplied with dates that a reference to them for the ages at which noted sires began to work cannot be expected to impart a completely satisfactory amount of intelligence; and yet, scanty as they are in these records, there is enough to indicate that the principal short-horn breeders at the end of the eighteenth and the beginning of the nineteenth century did not act in harmony with the judgment of our friend. With regard, for instance, to Mr. Charles Colling's famous bulls Favourite, Foljambe, Cupid, and Comet, they were fathers of stock at a very early age. There was progeny from Comet when he was two years old, begotten, of course, when he was little above one, Cupid was born in 1799, and Countess, his daughter, was calved in 1801. Kate and Red Rose, by Comet, came into the world in 1806, their sire being born in 1801, and Foljambe, the sire of Bolingbroke, whose birth took place on the 12th of November, 1788, was calved in 1787. Neither did Mr. Robert Colling object to an early use of bulls. His cows, Venus, Larina, Princess, Clara, and Amelia were all calved in 1816; Lancaster, their sire, in 1814. Trinket, by Barmpton, was calved in 1812; Barmpton in 1810. The herd of Mr. Mason bears the same testimony. The bull Chilton was calved in 1803, and had many sons and daughters in 1805. Dr. Syntax, one of the most famous of the Chilton bulls, was born in 1820, and his sire Mars in 1818; and Dr. Syntax himself was the father of a goodly number of calves when two years old. So was Irishman; so was St. John; so was Falstaff; so also were Cato, Jupiter, Charles, and Henry. The Bull, Monarch (2324), calved in 1826, was the sire of several animals born in 1828, among whom was Mercury. Bonny Face (807), a splendidly bred beast, was calved in 1823; and in 1825 his celebrated son Matchem (2281)—if, indeed Matchem was his son—made his appearance; but whether Bonny Face or St. Albans got Matchem is not material to the question, since Bonny Face was certainly put to Matchem's dam (Farmer Cow) as a yearling, and was the father, at two years old, of many calves. So was Matchem. These examples, gathered from the herds of Charles Colling, Robert Colling, and Mason of Chilton, may suffice. They could be easily multiplied, and other herds, if there was cause to extend the inquiry, would support them. Mr. Hutchinson, of Grassy Nook, may be adverted to as using his bulls at a very early age, and Mr. Bates, not only in later years, but in the more distant periods of his career, invariably did so. With regard, then, to the proposition that short-horns formerly were superior of size and constitution to modern short-horns, some other reason than that advanced at the beginning of this article must be assigned for the difference."

A Western paper announces "a cow struck by lightning and instantly killed, belonging to the village physician, who had a beautiful calf four days old."

TO PREVENT SHEEP FROM BITING OUT THEIR WOOL.—Dissolve one ounce of corrosive sublimate in one pint of alcohol. To one ounce of this mixture add one and a half pints of water, and apply externally. Vermont wool growers are very generally using this mixture.

CALVES "BROUGHT UP BY HAND."—A member of the Cirencester Farmers' Club makes a speciality of rearing calves, and has read a paper before that association describing his experience. He has been in the habit of procuring the calves dropped on the farm of a neighbour, and, with only four cows of his own, raised 50 calves in 1864, 55 in 1865, and, in 1866, 55 were weaned, but three have been lost by mismanagement. He takes the calves from about the first of March, when ten days old, paying 30 shillings each for them.

"They have for the first three or four days two or three quarts of milk at a meal; then gradually some food in the shape of gruel is added, and, by degrees, water is substituted for milk. Mixing oilcake with gruel is the secret of success. I use half oilcake, the best I can buy. Take a large bucket, capable of holding six gallons; put into it two gallons of scalding water; then add 7 lbs. of linseed cake, finely ground, which is obtained by collecting the dust that falls through the screen of the crusher, and passing it through one of Turner's mills. Well stir the oilcake and water together; and add two gallons of hay tea."

The hay tea is made by pouring scalding water in the morning on good sweet hay, in a tub, the tea standing covered till night, and having 7 lbs. of meal (wheat, barley and beans mixed) stirred into a tubful before use. The same hay will bear a second infusion during the night, for next morning. Two quarts per head, with an equal amount of cold water, is enough for a feed. The old plan of letting them suck through the cowman's fingers is preferred, and, as soon as they can eat, crushed corn, sweet hay and roots are placed within reach; vetches as soon as ready, and mangolds, of which a supply should always be stored if practicable. The calves live in a cool, well-ventilated house, are kept very clean and quiet, supplied with fresh water daily, and the manure frequently removed.

SELECTING RAMS.—Hon. H. S. Randall, of the *Rural New Yorker*, writes on this subject: "Among the requisites of the dam which ought to be considered indispensable, is constitution. Observation alone shows that the sire much more than the dam gives the size, form and covering of the progeny. But it just as clearly shows that the dam generally impresses her own characteristics in a superior or equal degree on the vital organs, that is to say, on the interior mechanism of the system, on which health, strength and endurance, or to sum up all in a word, constitution depends. Many a man owns a ewe with a very superior fleece and an abundance of fancy points. Perhaps she has an excellent pedigree. She is the 'show sheep' of his flock. But he finds that she is often amiss. She requires a careful management. A heavy rain storm gives her the snuffles. She is not a good milker and her lambs must be put on foster dams. She does not take on flesh readily in autumn after her lamb is weaned. She 'curls up' under the frosts and cold of approaching winter. She must be carefully housed. Her feed in winter must be carefully watched, for over-feeding very readily affects her condition and health. Whatever the pedigree of such a sheep, whatever her fancy points, however great her yield of wool when everything happens to go right with her, she is not fit to breed a stock ram from."

WEANING AND FALL-FEEDING LAMBS.—The true secret of making sheep-raising profitable is to keep lambs growing steadily from the day of their birth until they reach full maturity. The crisis of most importance in the life of the lambs is weaning them. They should be taken from the ewes when about four or four and a half months old, and there should always be provided for them a piece of new, fresh feed, and they should not be allowed to want for the best forage ground during the entire autumn. If not always convenient to provide a desirable lot for them, make up for the deficiency in fresh grain, by a small daily allowance of meal, made from equal parts of corn and oats ground together. Much advantage may be derived from feeding the leaves from cabbages and turnips. They should, if possible, be sheltered from all the heavy rains. It will take a flock of lambs much longer to recover from the effects of a drenching rain, than it will a flock of ewes. Their tender bodies have not a sufficient amount of stamina and vitality to keep up the degree of heat requisite to counteract the effects of rain, which weighs down their fleece. If lambs are cared for in the autumn, so that they come to the barn in good condition, the question of wintering well is more than half settled. *Fresh feed, a little meal daily, and careful sheltering, will pay better now than at any other time in the life of these animals.*—*Mirror and Farmer.*

THE USE OF SALT CONDEMNED.—A correspondent of the *Rural New Yorker* writes that paper from Michigan, and inveighs most earnestly against the use of salt whether for man or beast. He supposes the love of this condiment a depraved and acquired taste, and asserts in support that young stock will not eat it except in cases where the taste, like that for rum in some people, is inherited. Among other things he says:—"All creation appears to indicate a wise designer and an adaptation of means to ends. Now, would it not be unwise and even cruel to place animals on this earth with their food before them containing an insufficiency of some of the elements necessary to their health and comfort. Numerous species of animals never taste of salt, and millions of the human race have lived healthfully and died at a good old age without using it at all, and millions more live in perfect health who do not taste it either as food or condiment. In over doses it is repulsive, and even a poison to the human system, and it is said not to afford any nutriment but to pass out in the secretions without change, and when by reason of low vitality the system is unable to expel all, scrofula, ulcers and cancers may be produced."

Canadian Natural History.

The Belted Kingfisher.

(Ceryle Alcyon)

THE Kingfisher family of birds is a large and interesting one. Members of it are found in all parts of the world. They are all remarkable for the length of their bills, and the comparative shortness of their bodies. As may be inferred from the name by which they are popularly known, they feed chiefly on fish, which they capture most adroitly, darting down upon the surface of the water, and seizing with extraordinary celerity any incautious member of the finny tribes that may be sporting itself within reach of the quick eye, and long beak of the expert feathered fisherman.

All the American species of the Kingfisher group belong to the genus *Ceryle*. One of them, the Belted Kingfisher forms the subject of the accompanying illustration, and may be taken as a representative of the American branch of the family. This bird is found in most parts of the North American continent, from Hudson's Bay to Mexico. It is in the habit of migrating northward or southward, according to the season of the year, and the state of the temperature. According to Wilson, "mill-dams are periodically visited by the feathered fisher, and the sound of his pipe is as well known to the miller as the sound of his own hopper."

The Rev. J. G. Wood says of this bird in his "Natural History." "The sight of the Belted Kingfisher is singularly keen, and even when passing with its meteor-like flight over the country, it will suddenly check itself in mid career, hovering over the spot for a short time, watching the finny inhabitants of the brook as they swim to and fro, and then with a curious spiral kind of a plunge will dart into the water, driving up the spray in every direction, and after a brief struggle will emerge with a small fish in its mouth, which it bears to some convenient resting-place, and after battering

it, prey with a few hearty thumps against a stump or a stone, swallows it, and returns for another victim. Waterfalls, rapids, or "lashers," are the favoured haunts of the Belted Kingfisher, whose piercing eye is able to discern the prey even through the turmoil of dirty water, and whose unerring aim fails not to seize and secure the unsuspecting victims, in spite of their active fins and slippery scale-covered bodies."

Rapid streams, says Wilson, with high perpendicular banks, particularly if they be of a hard, clayey,

those steep and dry banks are the chosen situation of his nest.

"In these banks the Belted Kingfisher digs a tunnel, which often extends to the length of four or five feet, employing both beak and claws in the work. The nest is of a very simple nature, being composed of a few small twigs and feathers, on which are laid the four or five pure white eggs. The birds seem to be much attached to their homes, and the same pair will frequent the same hole for many successive years, and rear many broods within the same habits.

The extremity of the burrow where the eggs are placed is always rather larger than the tunnel itself, and is expanded into a globular chamber for the purpose of affording a sufficiency of space for the parents and their young. It is said that when a supposed enemy approaches the nest, the parent birds employ various artifices to draw his attention away from the sacred spot, and by fluttering about as if wounded or disabled, will often succeed in their endeavours. When the young are hatched, the parents are remarkably attentive to them, as might be supposed from the reckless manner in which they expose themselves to danger for the sake of their offspring.

"The colouring of this spirited little bird is rather complicated and not very easy of description. The head is furnished with a crest of long pointed feathers, which can be raised or depressed at will, and the whole upper surface of the body is light-blue, marked with a great number of narrow dark streaks caused by the black-blue shaft of each feather. The wings are blackish-brown, bound with white upon the primaries, and diversified with blue upon the exterior web of the secondaries. The sides are covered with blue mottlings, a belt of the same bright hue crosses the chest, and a broad white band encircles the neck, throat and chin. The tail is black-brown barred with white, with the exception of the two central feathers, which

are blue. The length of this bird is about one foot." The voice of the Belted Kingfisher is loud, dissonant, and startling, like the sound of a watchman's rattle.



Entomology.

Usefulness of Toads.

At a recent meeting of the N. Y. Farmers' Club, Dr. J. V. C. SMITH read a most interesting and valuable paper for farmers, if they will heed its precepts, about the usefulness of toads, and an urgent plea for protection. He made a beautiful allusion to an illustration of the designs of Providence, in forming the complete chain of animals, all of which have their purposes and usefulness. "It is idle to talk about useless animals. All are useful, and many we despise, are necessary to man. Even the common house flies should be ranked among the best friends of man. All dead and decayed matter, which is most abundant in the hottest weather, is detrimental to human health and life. Swarms of flies rapidly convert this matter into living, healthy substance, and thus purify the atmosphere, and make our dwellings habitable. These ever busy workers are actually essential, particularly in the dirtiest portions of cities. They destroy immense quantities of pestilence breed-

ing impurities. Their busy motions pertain to life. With death come foul odors, which flies consume and convert to life and motion. They are underestimated, and so are all reptiles.

The despised toad is one of our most useful domestic animals one of the farmer's and gardener's best friends. We should all learn lessons of useful instructions of the toad, and teach our children and servants never to injure them. They delight in well cultivated grounds, and live long in the same locality, occupying the same nests for many years. Their natural food is bugs and flies, which are injurious to the garden. They catch their prey with wonderful facility, by the power they have of shooting out their tongues, to the length of six or eight inches, striking with lightning quickness whatever comes within the focus of their two prominent eyes. If one eye is destroyed, they lose the power of striking their prey. The tongue is covered with a glutinous substance, which holds every insect it strikes.

Night is the toad's time to work. We have accounts of monster toads in Surinam, with mouths like a hog. All toads and frogs are insect eaters, and the number they destroy can hardly be over-estimated.

They seem to have been predestined for the great work of destroying bugs and insects generally, and as the natural habitation of toads is with man in his cultivated grounds, they are there his most useful co-workers. If not already in the garden, man should collect and carry them there. A few toads in a vine patch soon rid it of its worst enemies, the bugs. The young of frogs, while in the tadpole age, breathe by gills, under water. After they lose their tails, and become perfect frogs, they are air-breathing animals, and not amphibious. If they dive, it is only suspended inspiration. They must come to the surface to breathe. In spite of all Shakspeare has said to sustain the prejudice against toads, they are not poisonous or hateful. Our antipathy all comes from faulty education. We should teach our children not to hate, but to protect toads."

The paper of Dr. Smith, of which the above is only a brief sketch, was listened to with that kind of attention that proves its lessons were received with satisfaction, and several members related anecdotes and commendations of the toad. Prof. Nash recommended making toad houses in the garden, by placing four bricks together, and covering so as to form little caves. Solon Robinson related an anecdote of one that the children learned to re- "father's old toad."

The Cicada.

"Happy the Cicadas' lives,
Since they all have voiceless wives!"

Such was the ungallant declaration of the hen-pecked poet of Rhodes who, like many; others of the ancient writers, celebrated in verse the charms of the Cicadas' song. So highly, indeed, was its note esteemed by the Greeks in olden time, that to sing like a Cicada was considered to be the highest attainment of the human voice, and the eloquence of Plato was thought to receive its due meed of praise when placed in comparison with it. Anacreon made it the subject of one of his charming odes, in the course of which he thus describes it:—

"Thou quite innocent of harm,
Lovest the farmer and the farm,
Singing sweet when summer's near,
Thou to all mankind art dear;
Dear to Phoebus, god of day,
He inspired thy sprightly lay,
And with voice melodious he's L
And in vivid colours dress'd.
To the best I equal thee;
Thou'rt a dear deity."

The Athenians, in order to show that they believed themselves of divine origin, claimed affinity with the Cicada and made golden figures of it to wear in their hair. But in Italy and other countries their note was not so highly esteemed. Virgil execrates them as bursting the very shrubs with their noise, and other writers loudly accuse them of making the air hideous with their ear-piercing din. Whether the difference of species in different countries occasions a variation in their song, or whether the Greeks possessed an ear for music more like that of the Chinese than we usually give them credit for, are questions that present themselves to us in endeavouring to account for this disparity of opinion; but for want of fuller information on the subject, we think that complete reliance must be placed on the exquisite taste of the Athenians in all that related to luxury and art, and that the Greek Cicadas fully deserved the praises that were so lavishly bestowed upon them. The note of our Canadian species, though shrill, clear, and by no means very musical, is not at all unpleasant when heard, as it usually is, in the full burning heat of a bright summer's day. When the songs of the birds are hushed, and all nature droops beneath the glaring rays of the sun, it is cheering to have the monotony broken even by this buzzing, hissing, screaming song.

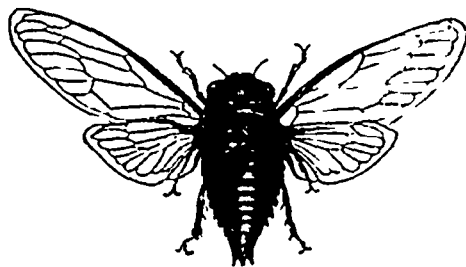
The insect to which we have been referring,—the *Cicada tibicen*, Linn., called by some the Dog-day harvest-fly,—is, no doubt, familiar to all our readers, at least as far as its song is concerned, the insect itself being uncommonly hard to capture.

We are indebted to Mr. De Courtenay, of the Clair House Vineyards at Cooksville, for a handsome specimen of the insect. He states that the *Cigale*, as it is termed in France, "appears to follow the vine as far as the centre of the wine region, but is not found in the Northern portion of the territory suited for grape culture. Here, as in Europe, it appears in vast numbers about the time that the vine commences to colour, that is, towards the middle of August, and makes the vineyard resound to an almost deafening extent with its song. In Italy the superstitious peasantry call the *Cigales* 'painters,' believing that they occasion the change of colour in the grape; they also used to imagine that their shrill and monotonous piping is in honour of Bacchus, the ancient tutelary god of the vine."

Mr. De Courtenay considers that the abundance of these insects to be found in Canada, is an argument in itself for the capabilities of the country in a wine-producing point of view; and believes that wherever they are numerous the grape may be successfully grown. So far as the question of climate is concerned we believe him to be substantially correct in his opinion; for the Cicada is never heard except during the hottest days of summer, and could not complete its transformations without the quickening power of a high degree of temperature. And, with regard to soil, the same conclusion may be deduced from their

appearance; for their larvæ live by sucking the juices (often to an injurious extent) from the roots of elm, maple, cherry, and many other fruit trees. Land, therefore, capable of producing and sustaining trees of this kind, cannot fail to be rich enough for the successful growth of the grape.

Our illustration will, we trust, enable those of our readers who are unacquainted with the appearance of this insect to recognise it when it falls in their way; our description, then, need but be brief. The perfect insect; that is, in its winged form, measures about three inches across the expanded wings, and an inch and a half from the head to the tip of the wings when closed. The body is thick, measuring about half an inch across, and tapers to a point behind. Above it is black, varied with stripes and lines of olive-green, while beneath it is hoary with a flour-like substance, which is generally more or less rubbed off in old specimens. The wings are clear and opalescent, with green or brown veins, and a dusky shade near the tips of the front pair. The eyes are large, round and very prominent; there are also three little eyes placed in a triangle on the top of the head, so that the insect is able to see in every direction at once. Like all the other species of the great order of bugs, properly so called, (*Hemiptera*), it is furnished with a long, stiff sucker, which, when not in use, lies against the under-side of the body, passing



between the front pair of legs. The musical apparatus, with which the males alone are furnished, as alluded to in the lines at the head of this article, consists of a pair of drum-like instruments, situated one on each side of the abdomen, just behind the last pair of legs; they can be plainly seen with the naked eye. These round, convex, parchment-like membranes are played upon internally by a set of muscles and chords, in a most curious and wonderful manner, and display most remarkably the consummate art and skill of the great Creator of all. A detailed and intelligible description of the whole mechanism would be quite out of place here; those who desire it can find full and accurate accounts in the works of various scientific entomologists, such as Kirby, and Spence, Westwood, and others.

The celebrated Seventeen-year Locust, (*Cicada septendecim*), belongs to the same genus as the insect before us, but has not as yet made its appearance in this country. It was expected to show itself this year in Western New York, Western Pennsylvania, and Eastern Ohio; we have not, however, heard whether these calculations proved correct or not.

How to Destroy the Hop Aphid.

THE hop crop of this country has been greatly damaged in many sections—almost destroyed, for years past by the hop-louse or Aphid.

These little insects multiply so as to be particularly observable during the month of July, and soon cover the entire vine with mildew-like green masses of life, sucking its juices, and destroying the crop. Some patents have been issued for preventing this destruction, but we are not familiar with the means employed. There are a number of substances, which, if they can be applied, will kill Aphides and not harm the plants upon which they live. Tobacco smoke, and tobacco water are both used in greenhouses upon tender plants with success.

Mr. F. W. Collins of Rochester, the inventor of the horizontal hop yard plan, which has been described in this Journal, and in our hop book, spent last summer abroad looking into the modes of hop culture. He writes us, that the English hop growers use almost universally one or the other of the following washes:

1. A mixture of strong soap suds, to which salt and saltpetre are added, so that a brine is made about half as strong as common beef pickle, and to this one pound of copperas to five gallons of liquor is added, dissolved in warm water.

2. Tobacco water made about as strong as for sheep dipping: that is, a strong decoction made by boiling a pound of tobacco in a gallon of water. The stems and refuse parts of the leaf are usually employed.

Mr. Collins says: "They raise hops in England on a much larger scale than we do in this country. Gardens of 50 to 100 acres are quite common, and 200 to 300 in one plantation are occasionally seen. They are strictly watched, and as soon as the vermin begin to appear on the vines (or bines as they are called there), they go through between the rows with a machine, like a little fire engine, carrying a tank containing the liquid and a force pump. There is a hose with a sprinkling nozzle attached, by which the liquid is thrown in fine but strong jets to the tops of the highest poles, in such a way as to strike the leaves upon the under sides where the lice for the most part collect. We can easily apply the preparation to our smaller yards with the green-house syringe or the garden engine, especially, if the economical system of training on short stakes and twine be employed. This brings all the vines within 7 feet of the ground, and so within reach. This is an advantage of the horizontal system perhaps not heretofore appreciated and it will be still more valued should the mildew or mildew appear here. In England this disease causes a thickening of the parts affected, the stems and leaves and attacking the buds or immature hops, stops their development. To prevent this, they dust or sulphur with a machine for the purpose.

The hop crop is the most paying crop, both in Europe and America, taking any ten years together for 40 years past. In this country its culture is rapidly increasing. We have now about 16,000 acres devoted to hops; England has 50,000, Austria 150,000. Our hops are nearly 30 per cent. stronger than those grown in England, and fully equal to the Belgian hops.—*American Agriculturist*.

THE PRIVET SPHINX CATERPILLAR.—We have several times lately had our attention directed by admiring as well as terror-stricken spectators to this handsome caterpillar, which, at this season of the year, wanders away from its food-plant in search of a fitting place for its underground winter quarters. A specimen has also been sent us from the Clair House Vineyards, at Cooksville, where it was found on a Privet hedge; it feeds as well upon the leaves of the Lilac, and, according to Mr. Edwards, on the white ash. When fully grown the caterpillar is about three inches long, of a delicate pale green colour, with seven oblique pale yellow stripes on each side; on the hindmost segment, as is usual in this genus, there is a stiff pointed horn, of a pinkish colour, tipped with blue. This projecting horn, coupled with the apparently threatening attitude assumed by the insect when at rest (whence it derives its name of Sphinx), inspires with horror those beholders who 'always shudder at any creeping thing, however harmless, or useful, or even beautiful it may be; but like almost every other kind of caterpillar, it may be handled with perfect impunity. The chrysalis remains in the earth all winter, the perfect insect emerging from it usually when the lilacs are in flower, around which it may often be captured at twilight as it hovers like a humming-bird, sipping honey from the fragrant blossoms with its long fleshy tongue. The Moth (*Sphinx cinerea*, Hubner) is almost entirely ash-colour, with a few black and white bands on the body. Its expanded wings measure as much as five inches in some specimens.

Borer and Apple Worm.

J. B. Callender, of Northfield, in his report to the Franklin Harvest Club, after urging the importance of cultivation and careful attention to young trees, made the following remarks:—For 6 years at least, encourage the growth of wood by open culture in the orchard, obtaining from the land, by the usual manuring, such hoed crops as desired. Avoid the application of too much manure of a strong and forcing character to the roots of trees; a sweet, natural soil of good quality, kept open to the influence of the air and sun, with a light manuring, is best. Ashes as a manure, I think excellent, heaping up close around the trunk early in spring, and the latter part of May spreading upon the surface. Prepare to wage "eternal warfare" against the insect host that unceasingly and in every form attacks trees, flowers and fruits. One great cause, if not the greatest, of the unproductiveness of our orchards, I conceive to be these insect enemies, whose voracity and insidious approach cannot be too much dreaded or too carefully guarded against. I think I came very near the loss of a large portion of a fine young orchard through these means. I found to my dismay, on close examination of this orchard shortly after purchasing, that Satan had stealthily crept into the garden in the form of the relentless borer, and had already tasted of the "forbidden fruit," and was mercilessly engaged in sapping the life of the trees. I perceived there was no time to be lost, and like good Christian of old, I buckled on my armor, and valiantly made at Apollyon. With bent wires, sharp pointed knives, gimlets, and what not as weapons, I succeeded after a week or more of hard fighting, in bagging from about 100 trees, more than 600 of these "boring" imps, and thereby saved many valuable trees from destruction. I gloried considerably over this achievement, and fancied that the small community of borers which had escaped must have voted me a "bore." The only way to rid our trees of the borer I conceive is to dig him out. The little worm whose progenitor is the Codling moth, which lays her eggs in the blossom end of the apple may be destroyed in a great measure by feeding the windfalls to the hogs as fast as they fall. The other insects, too numerous to be counted, that infest our fruit trees, to a considerable extent, may be destroyed by scraping the trees and washing with some alkaline solution. I use good soft soap for a wash, (from two to three quarts to a pail of water,) and wash the trees twice during the season, first the latter part of May and first of June, when the young insects, under the influence of the sun, are just waking into life, and before they are old enough to resist the influence of a little "soft soap," and again the latter part of the season.—*Boston Cultivator.*

PROTECTION OF TREES FROM INSECTS.—The following simple method of preserving fruit from the ravages of insects is recommended by the Imperial Society of Practical Horticulture of the Rhone, and by the director of the School of Arboriculture of the Parc de la Fete D'or at Lyons. The quantity of fruit destroyed by insects that deposit their eggs in the blossoms is enormous. These creatures are said to have a great antipathy to vinegar, the mere odour of which is enough to drive them away, and, in some cases, to destroy them, and nothing more is required than to sprinkle the branches with a mixture of vinegar and water at the moment the blossoms begin to appear. The mixture recommended consists of one part of vinegar to nine parts of water, but as French vinegar is very strong, perhaps the amount of water should be less when English vinegar is used. When the liquids are well mixed, the solution is to be sprinkled over the flower-buds by means of a garden engine or syringe, or even with a watering-pot with a fine rose. M. Denis, the director of the school referred to, tried the experiment last year, and reports that fruit trees so treated were covered with fruit, while those to which the acidulated water was not applied bore scarcely any. The other remedy proposed is against ants and insects which mount the stems of trees. Take common lamp-oil, and expose it in the sun for three or four days, or until it acquires a gummy consistency and very disagreeable smell, then with a small paint brush paint around the tree at about 2 feet from the ground a band of the oil 2 inches wide, repeating the operation for three or four successive days. It is said that this method will protect the tree for four years at least. Perhaps coal tar might be found to answer the same purpose.

THE CANKER WORM.—Ira Phillips, Corresponding Secretary of the State Agricultural Society, Iowa, speaking of the means proposed for destroying the canker worm, says they have been so numerous and many of them so absurd as not to be worth mentioning. He adds:—The most effective means have been a strip of cotton batting tied around the tree and the edges well fringed out.

The Dairy.

Prince Albert's Model Farm.

THE ROYAL DAIRY.

In a recent letter to the *Utica Herald*, Mr. Willard mentions a visit paid to Prince Albert's Model Farm, in the vicinity of London. From his remarks concerning this farm we extract that portion descriptive of the dairy buildings, and process of milking and butter making.

"The dairy buildings stand apart, and are at some distance from the farm buildings. The dairy house is a beautiful structure, with cupola and pointed roof, its outward appearance having a pleasing effect. The interior, however, is beyond all question a model of beauty and perfect cleanliness. The floor, the walls and the ceiling are of china, fashioned in the most graceful designs. The pans for holding the milk are of china, white, with a line of bronze round the edge. They are elliptical in shape, with a nose or scallop at one end for emptying the milk: they stand upon broad, white marble slabs, highly polished. The windows are of stained glass, and on each side of the room are fountains, all of china, and arranged with unique figures and graceful devices. Tiny jets of water spin up from these and fall into the china basins with a musical ripple. The ceiling has open spaces arranged so as to have the appearance of Mosaic work, and there are three roofs, with compartments between, so as to secure a perfect ventilation. All about the sides of the room are medallion heads of the Royal family, and the whole reminds one of the charming descriptions of fairy life which we read in childhood.

"It was 3 o'clock, and the milkers were bringing in the milk, which is strained in an adjoining room. The cream is taken off when the milk has stood twenty-four hours, and twelve hours after it is skimmed again. The cream is churned when forty-eight hours old, the churning being performed in an adjoining room. The churn is of tin, barrel-shaped, and revolving. It has compartments at each end for hot or cold water, so that temperature can be regulated without mingling the water with the cream. The butter is washed in an oval tub, unpainted, and after being washed is worked upon two thin wooden paddles. In the dairy there were a number of rolls of butter upon a large china trencher, the rolls being about eight inches long and three inches in diameter. The cream and milk for the Royal tables are put in small tin cans with covers, and these again are placed in a larger tin receptacle with cover, when they are sent away to the palace, either to London or the Castle, as the case may be, where the Queen is staying. We tasted of the butter and took a glass of milk, and can vouch for its purity and sweetness.

"The dairy stables contained about sixty cows, mostly Short-horn of the Booth strain of blood. The stables were models of neatness. A glass roof in the centre was well arranged for ventilating purposes. The cows were ranged in stalls or divisions containing two animals each: floors of stone inclining towards a gutter, and well bedded with straw. The animals were of the best type, but the flow of milk did not appear to be in excess of that obtained in many dairy districts in this country. Across a paved court from the dairy buildings and opposite to them, was a piggery, well stocked with animals known as the Prince Albert breed."

The Dairy Business.

The following judicious remarks are extracted from the address delivered at the Oneida Co. Fair, the first week of last month, by Hon. S. F. MILLER. They well deserve the attentive consideration of all who are engaged in dairying.

Let us now turn to the dairy—the leading business in a large section of our State. (and here let me say that in these illustrations I shall name prices as they existed before the war, when prices were regulated by the cost of production and not by the fluctuations of the gold market). I hold that a cow that in good hands makes but 100 pounds of butter, worth 20 cents per lb., barely pays for her year's keeping. Such a cow should never be bought, is really worth nothing for the dairy, and the quicker her carcass goes to the butcher, the better. Assuming that 100 lbs., of butter at 20 cents is the cost of keeping a cow, it is plain that one that makes 125 lbs., yields \$5 profit, while one that makes 150 lbs., only one-fifth more, yields \$10, or twice as large a profit; and for dairy purposes, saying nothing of the beef, this one is worth just twice as much as the other. Do

farmers remember this when they are buying stock for their dairies? But skill in the butter maker is a very important element in successful dairying. Of two dairymaids making a hundred pounds per cow, the first gets 22 cents, and the second, by superior skill, gets 24 cents; the second has added but one-eleventh to the price, but she has doubled the profits. I will not say that butter-making is the highest qualification for a good wife, but it is quite certain that of the two dairymaids, the last would at least be the better help-mate. Here, let me say, that no dairyman shall be allowed to charge his want of success to his better-half, and generally the hardest working-half, until he has fitted up his dairy-house after the most approved models, until he has brought the best spring of water within his reach to the most convenient spot, until he has procured the best and hand-somest utensils, and until he has furnished sufficient help, so that his wife can make her work one of skill and taste, and not of mere drudgery. For the lady who, with practical skill, carefully following the rules that experience has taught, makes a package of butter that commands your highest premium, has an accomplishment of which the noblest matrons of a golden age would have been proud. But I am told that the cheese factories have completely revolutionized the dairying business in this section of the State; that the farmer's family is thus relieved from the severe labor of the business, thereby having time for mental cultivation and social enjoyment, while his profits are not diminished. It is to be hoped that a similar system may be found to work equally well in the manufacture of butter. But there can be no doubt that the same rule of disproportionately large profits for extra skill will be found to apply to the factories as to the home manufacture. I will venture the opinion, that even at the present high price of your cheese, you cannot safely count more than 4 cents per pound as clear profit. Now, of two factories in the same neighborhood, if one by closer attention and superior skill makes an article that commands one penny per pound more than the other (but one-twentieth of the price), it will give to its customers a quarter larger profits, and it will be seen very soon, if it has not been already, that only the best managed factories retain their customers.

When we remember that the last few pounds of product, and the last few pennies of price, have such a disproportionate effect upon profit, and when we see that as a general rule, the farmers who make the most also make the best, is there any mystery that some are so prosperous, easily throwing off a load of debt, handsomely educating their children, wisely surrounding and filling their homes with the comforts and elegancies of life, while others, equally industrious, merely keep want from the door? The secret is here; three-quarters of the crop and of the price always goes to pay the cost, and the poor farmer never gets beyond this. Now, is not this the road to improvement, to continually strive after the best models, and to raise the average of to-morrow to the maximum of to-day? I presume that your best dairymen make 200 pounds of butter per cow, while the average for the county is not above 120 pounds. Now, if all next year, by improvement in stock and improvement in skill, could do as well as the best do this year, and all might, you would more than double the annual income of your farms, and, if held, they would soon double their cash value, for steady income will always determine the value of the property producing it.

STOPPAGES IN THE COW'S TEAT.—A correspondent wishes to know what will cure a certain stoppage in the teats of his cows, by which one of his cows has entirely lost the use of one teat. Another farmer in the same town has had several afflicted in the same way. It commences by a scab on the end of the teat and extends up the orifice, which it makes quite hard and completely closes. There is not much swelling, and no indication of garget. Such cases are not uncommon. What causes them we do not know, but have heard that they can be cured by making an incision up the teat. It may be done by taking the pointed half of a pair of scissors grind it to an edge on both sides and whet it until it is as keen as a razor: It will probably be necessary to insert this a quarter to half an inch. Gauge the distance by placing the thumb of the right hand on the spot. Then take the teat in the left hand, holding it firmly and push the instrument gently, but quickly up. The teat must then be pressed several times each day until the milk passes. We have been told that tubes are sometimes inserted at each milking, and answer a good purpose.—*N. E. Farmer,*

Veterinary Department.

Interesting to Veterinary Surgeons.

To the Editor of THE CANADA FARMER.

Sir,—As I am not aware of any periodical on Veterinary Surgery I send you the following which may prove interesting and profitable to some of your readers. On the 16th of last month a colt of mine was cut by a cradle scythe on the stifle: opening that joint from side to side on a plane with the ends of the bones, to the extent of an inch and a half. Of course the joint oil flowed profusely. As it was impossible to maintain the necessary conditions of healing, such as rest, &c., I considered the case almost hopeless, but the animal being a very fine one, I was unwilling to knock it on the head. During the inflammatory period the feet swelled much, and of course the leg was then stiff. Six days after the injury, when inflammation had passed and the swelling had subsided, the lips of the wound showed "proud flesh." I scraped this gently with a sharp knife so as to produce a fresh (an adhesive) surface, with a view to adhesion, or healing by the first intention, and brought the edges of the wound together by what we call in human surgery the "quilled suture." Thus: the stitches of double thread, and a stick say the size of a goose quill through each end, the pressure of drawing and holding the wound together is then on the stick, and the stitches are not so apt to cut out. The "joint oil" still continued to ooze out. The part seemed to become very itchy and the colt tore out the stitches five days after they were put in. Meantime, however, adhesion had taken place to a considerable extent, and now Sept. 16, one month after injury, the colt is scampering about the fields with the wound perfectly healed, and has perfect use of the joint as though nothing had happened, and apparently in twelve months there will not be even a scar. Such are the facts. Now your readers will naturally be curious to learn what was locally applied to bring this (generally serious) wound to so favourable an issue. If you allow me space, for the sake of horse flesh, I will be a little particular in my explanations. I applied nothing, and did nothing further than what is stated. If I were to suggest any improvement in the management of the like wound, it would be to leave a small space in the stitching for the "joint oil" to escape. While swelling will cause stitches to break out, no good can come by putting them in. It may be contended however that if we wait till swelling subsides, the adhesive period will have passed, and then stitching cannot be of much service, as nature most likely, will have set up her second best plan of healing, namely, "proud flesh." The usual plan, to follow it on, is then to apply caustic more or less mild "to cut off the proud flesh." This forces nature to her third resort of healing, namely, by growth. Now if swelling is allowed to subside, and the "proud flesh" if there be any, if not, the edges of the wound be scraped as in the case above referred to, and managed as above, nature will heal kindly by her first and best process. I am quite satisfied that if any of the thousand remedies urged on the "public" by the "trade" had been applied in the case set forth, nature could not have healed. Common sense tells us that any application whatever must be thrown off the edges of a wound before it can adhere, and by throwing off again and again what is readily and unscientifically applied, nature is forced to exhaust her forces, and often hopelessly fails; when if those forces were left to themselves, a wound would heal with vigour and satisfaction.

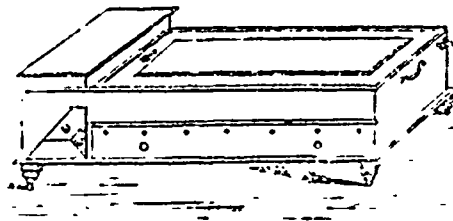
Now let me add a little about *doctoring horses* generally, and I am done. The dosing business in my opinion is carried on with a cruelty warranting legislative interference. Almost anybody can dose a horse you know,—can bleed, give balls, apply oils and ointments, give something for the water, and can administer the drench! I have noticed too that unless the beast shows a broken leg or the like, it is generally the *kidneys* that are affected; also that the rural horse doctor generally exhibits an outline quite becoming such innocent cruelties as being harsh with animals. Such is the way too often horses are doctor'd. Observe I am not speaking of *how to doctor them*. This much may be said, however: better by all odds to leave the case entirely to nature than to be meddling with random remedies; and if interference should be considered needful, in the absence of a trained Veterinary Surgeon, to whom of course the above remarks do not apply, it would be wise to have the advice of a medical gentleman, which I am quite sure would not be withheld through mere "etiquette," when and where humane interference is so much needed.

JAS. KENNEDY, Surgeon.

SULLIVAN, Co. Grey, Sept 16th, 1866.

CURE FOR HEAVEY HORSES—A correspondent of *The Massachusetts Ploughman* having had a large experience with animals afflicted with the disease in question, always with success, with a small amount of labour, submits the following: First, procure (if you have not one already) a head halter, and tie the horse so that he cannot eat the bedding: give for a few days but little food, and that wet, not more than half the usual quantity, which will relieve the breathing; after which nutritious food is fed liberally with grain, and less hay, and so long as you do so, your horses will not have the heaves. If the owner wishes to hurry recovery, a dose of physic (an ounce of powdered aloes), will unload the bowels quicker. I have owned several heavey horses, and after treating them as stated above, I have doubted whether they ever had the disease, but after (by accident) a large amount of hay had been devoured, the distressed breathing and double action of the flanks re-asserted the facts.

Poultry Yard.



Brindley's Incubator.

Some time ago in answer to enquiries made by correspondents, we gave an illustration and description of a contrivance for hatching eggs by artificial means, which originally appeared in *The Field* newspaper. We now give a cut and account of another contrivance of the kind taken from a late number of the *Journal of Horticulture*.

This incubator is an oblong wooden case resting on four feet; the apparatus for thirty-six eggs being 2 feet long, 1 foot wide, and 7 inches deep. At the left-hand side, enclosed in wood, is a metal boiler, attached to which is metal tubing, which goes round inside the incubator, between, but not touching, glass. This space between the two glasses forms a chamber for the hot air. In a drawer at the bottom of the incubator, the eggs are placed on a tray fitted with spiral springs covered with flannel, one for each egg, and by means of thumb-screws they are pressed so as to lightly touch the lower glass, which glasses is to be kept at the heat of a hen's body. The heat is greatest at the top of the eggs. The necessary moisture for the eggs is drawn by the heat above, from water placed in the bottom of the drawer, which is metal. The thermometer is placed between the two glasses, and may be seen, as also may the eggs, without opening the drawer. The lamp is neatly enclosed directly under the boiler, and is easily removed for trimming, which is required twice a-day, and if the best colza oil is used there is little or no smell from it. There is not the slightest danger of any part of the wood-work taking fire.

The incubator has been constructed from taking the natural means as closely as possible for a guide; There is no loss of room, as little loss of heat as possible, and, if attended to, it will not fail to give satisfaction.

Instructions for Working.—Fill the boiler with boiling water half an inch from the top, and supply the waste every morning. Turn on the brass tap for a moment every morning to let out the air. Trim the lamps and replenish the oil morning and night, and look at them two or three times in the day to see that they are burning right; if too high, and the flame touches the bottom of the boiler, soot will be formed, which wastes much heat and oil. Colza oil should be used, and the end of the wick be well soaked in it before lighting; the wick will burn better if soaked in vinegar and dried before using it. When putting in the lamp-case, or removing it from under the boiler, do so quickly, otherwise the wood-work may scorch.

The loose flannel cover is for the glass outside, it keeps in much heat. Cover the bottom of the drawer with cold water, say half an inch deep, place the eggs, one on each spring, on the tray over this water, and, when the drawer is shut, set it up so that the top of the eggs shall lightly touch the lower glass. The eggs do not require sprinkling, the necessary moisture for them is drawn by the heat above from

the water below; as this water wastes it should be replenished. Keep the thermometer up to 110°; no harm will be done should it rise or fall a few degrees from this, but a temperature of from 105° to 110° should be maintained as far as possible. If too high, the ventilator opened and the loose flannel cover removed will soon lower it.

The eggs should not be put into the incubator until it has been working several hours, has acquired a proper heat, and is in working order. Turn them once a-day. In four or five days it may be ascertained whether or not the eggs are birded by their being held before a candle in the dark; if alive, the veins may be seen moving. If it appears certain that they are not birded, they should be replaced by others. Eggs may be added any time. The date of putting in should be pencilled on each egg. When the chicks burst the eggs, the thumb-screws must be loosed to give them plenty of room, and they should be kept in the incubator a few hours; they require nothing but the requisite warmth for the first twenty-four hours after hatching.

Should the temperature of the incubator by accident fall very low or rise too high, it may not follow that the vitality of the eggs is thereby destroyed; get the heat right again as quickly as possible, and keep the incubator working on. The top may be screwed off when it is required to clean between the glasses.

TO PREVENT CATS KILLING CHICKENS.—When a cat is seen to catch a chicken, tie it round her neck, and make her wear it for two or three days. Fasten it securely, for she will make great efforts to get rid of it. Be firm for the time, and the cat will be cured. She will never again desire to touch a bird. This is what we used to do with our favorite cats, and what we recommended to our neighbours, and what we now recommend to our readers, and when they try the experiment, they and these pets are secure from reproach and danger henceforth. Wild, homeless, hungry, savage cats, were more difficult to catch; but they are outlaws, and may be shot, with the certainty that all good neighbours will be thankful.—*Country Gentleman*.

The Apiary.

Liquid Honey.

The following receipt for a beautiful liquid honey is taken from Mr. Langstroth, which he says "the best juices have pronounced one of the most delicious articles they ever tasted."

"Put two pounds of the purest white sugar in as much hot water as will dissolve it; take one pound of strained white clover honey—any honey of good flavour will answer—and add it warm to the syrup, thoroughly stirring together. As refined loaf sugar is a pure and inodorous sweet, one pound of honey will give its flavour to two pounds of sugar, and the compound will be free from that smarting taste that pure honey often has, and will usually agree with those who cannot eat the latter with impunity. Any desired flavour can be added to it. Although no profit can be realized from inducing bees to store this mixture in boxes or glasses, the amateur may choose, in bad seasons, or in districts where honey is pure, to secure in this way choice specimens for the table."

ANGRY BEES AT A FUNERAL.—An extraordinary scene lately occurred at a graveyard at Edwardsville, Ill. During the funeral ceremonies over the body of a child, the mourners and attendants were attacked by a swarm of bumblebees. The irate insects lit upon the uncovered heads and faces of those present, who were stung in a terrible manner. The ladies screamed, and a retreat was beaten before the ceremony concluded.

TO PREVENT BEES ROBBING.—Perhaps some of your readers would be glad to know of a remedy for bees robbing, which has proved successful, in almost every instance, for some years past. When you find the bees clustering around the entrance of the hive, close the entrance so that only one or two bees can pass at a time (if this has not been done before). Then split one end of a couple of sticks or narrow bits of shingle; insert in the end of each stick a bunch of cotton batting as large as a butternut; dip these in alcohol or spirits of turpentine, and place these saturated parts so near the entrance that no bee can pass without getting a strong scent of the alcohol or turpentine. In a few minutes every intruder will leave, and the colony will resume their labors as if nothing had happened. It is sometimes necessary to rub some of the alcohol or turpentine on the hive when the bees cluster, and, if necessary, renew the application occasionally.—*Cor. Country Gentleman*.



A Week in Halton.

To the Editor of THE CANADA FARMER :

Sir,—Before entering Halton I spent two or three very agreeable days in the southern portion of the adjoining county of Peel. Mr. Emerson Taylor, President of the Agricultural Society of the latter county, met me at the Credit station on Sept. 4th, and kindly conducted me to places of interest in that neighborhood.

In company with Rev. Mr. Hodge and Dr. Dixie of Springfield, we drove to Streetsville, and inspected the manufactories of that place. The flax mill of Messrs. Gooderham & Worts although not yet in full operation, having been commenced scarcely a year ago, presents several features of interest, and is already producing from native grown flax a large supply of twine, cordage, and seamless bags of very superior quality. The large stacks of flax straw, surrounding the premises pleasingly indicate the recent rapid growth of the culture and manufacture of flax in this vicinity. The woollen manufactory of Barber & Bros. is an extensive and very complete establishment; producing a great variety of goods of a superior description: some of their tweeds, for instance, rivalling in point of quality and price similar productions of the old world. The hundreds of people to whom the two establishments just noticed give employment at liberal wages, constitute the life of the village, and materially affect the wealth and general condition of the neighbourhood. It is worthy of remark that Mr. Trauer has here a number of looms, both hand and power, for weaving woollen stockings, socks and shirts; turning out articles of good quality, and excellently adapted to our home market. The soil in this vicinity is a pretty strong clay, and with good culture yields heavy crops. Flax, which is extensively grown in this section, has been an excellent and remunerating crop this season, and its cultivation is yearly increasing.

The vineyard at Cooksville is well worth a visit. We were very courteously received by Mr. De Courtenay, who is evidently at home on the subject of grape-culture and the manufacture of wine. This may be said to be the beginning of a new enterprise in Canada, conducted on systematic principles; and there remains no doubt that the soil and climate of this country are well suited to many of the more useful varieties of the grape. As this extensive vineyard was fully described and illustrated in a recent number of THE CANADA FARMER, the above passing notice must suffice. The Rev. Mr. Hodge has some of the best grapes under glass that I have seen this season. He gives a little artificial heat early in the spring and also late in the fall, for bringing forward the fruit and ripening the wood. He also takes great interest in bee-keeping, and considers the Italians to possess decided advantages. Both grape-growing and bee culture are making steady progress in many parts of the Province. Dr. Dixie has one of the best managed gardens that I have seen for a long time, abounding in many of the most approved varieties of fruit and vegetables, indicating an intimate acquaintance on the part of the proprietor with the best modern principles of horticulture.

I inspected near the village of Springfield two hop plantations, one of about 14 acres belonging to Mr. Magrath, the other consisting of only 3 acres, owned by Mr. Conover. In both picking was proceeding, and the crop was a fair one. The aphid had recently attacked the plants, and here and there a pole or hill was severely blighted. If the attack had come earlier, the crop would have been in all probability wholly destroyed, as was extensively the case last year. Mr.

Conover's hops are cultivated upon what is designated the trellis principle, each hill having only one pole about 7 or 8 feet high, and the vines running on strings, or thongs made of slippery elm bark from thick overhanging festoons, of great beauty and richness. The trellis hops did not seem so badly affected by the aphid, as those attached to poles in these two instances; but whether the difference was owing to the different styles of growth, I would not, from a single observation, positively affirm. For thorough and clean culture, Mr. Conover's beautiful little hop garden would not unfavourably compare with the best managed English plantations.

I spent what would have been an exceedingly pleasant day, if the weather had been propitious, with the Rev. G. Evans, near Oakville. Mr. Evans farms about 30J acres, and both grain and root crops, with the exception of turnips, were heavy. The Southdown seems to be the favourite sheep on his farm and I observed some good specimens of Leicesters, and also of grade cattle and pigs; but the wetness of the weather prevented any extensive observation in this vicinity.

Mr. W. C. Beatty, the indefatigable Secretary of the Halton Agricultural Society conducted me through a large portion of the townships of Nelson and Trafalgar, where there is much to interest the eye of a practical agriculturist. Mr. Beatty farms pretty extensively at Omagh; he has already some good animals, and is laying the foundation of a shorthorn herd. The soil is rich, but flat and stiff, and is much benefited by draining. Mr. Switzer, Secretary of the Trafalgar Society, of Palermo, has quite a collection of open-air grapes, of most of the approved varieties; the fruit larger and more advanced than might be expected considering the coldness and wetness of the season. The gooseberry and plum do exceedingly well in this soil, a rich calcareous clay, and when wet, wonderfully benefited by draining. In Nelson we spent an agreeable hour or two with Mr. Campbell, who has a large and well managed private dairy, supplied with milk from upwards of 100 cows, producing excellent cheese for which there is a ready demand from the home market. Mr. Campbell calculates that his cows will each produce between fifty and sixty dollars worth of cheese the present year.

I enjoyed a pleasant day's ride with John White, Esq. M.P.E., over a fine tract of country. I had the pleasure of inspecting the recent importation of young rams of the Leicester and Lincoln breeds, by Mr. Kirby, who manages a splendid farm of Mr. White's near the county town of Milton. These sheep are certainly highly creditable to Mr. Kirby's taste and judgment, for a finer lot of animals I never saw. The Leicesters are large yet finely bred, having the characteristic points of that famous breed fully and harmoniously developed. The Lincolns are splendid animals, possessing a large symmetrical frame and heavy fleece; a wonderful improvement as all will acknowledge who were acquainted with the Lincoln sheep thirty years ago. Pity Mr. Kirby did not bring out a few Lincoln ewes, to ensure the pure breed from the most approved modern types. There is ground for hoping that this desideratum will ere long be supplied. "Butterfly Second," is a fine young shorthorn bull, of the best blood, got by "Oxford Lad" out of "Miss Butterfly." I observed on this farm a number of excellent Durham cows and young stock, together with grades of superior breeding. Mr. White purchased the greater part of the herd of the late Hon. Adam Ferguson.

I was struck with the luxuriant appearance of four acres of hops belonging to Mr. John McNaughton, Esq. near Milton; the plant was only a year old from cuttings, yet it covered with a thick mass of foliage and fruit poles from 14 to 16 feet high, and would apparently yield from 12 to 14 cwt. per acre. This luxuriant growth of the first year's planting far exceeds anything one is accustomed to see in England. Mr. Contes, near Milton, has an extensive orchard of choice apples and pears. The soil under the limestone ridge is of excellent quality, well adapted to fruit culture, and indeed to all farm crops. A few winters since several of Mr. Contes's apple trees—some of considerable size—were badly girdled by mice; but by inserting in the spring grafts into the bark above and below the wound, the growth of the tree was sustained, and the naked portion of the stem gradually covered by new wood and bark. Mr. Wilmot, near Milton has recently got a cheese factory in operation, with a small steam engine for pumping, warming, &c. He keeps 50 cows, and purchases the milk of 150 more. The curd is cooked sufficiently high to render the cheese dry enough for transatlantic exportation. Cheese readily sells at the factories

for 12½ cents per lb, and the usual practice is to give two cents less than the value of a pound of cheese for a gallon of milk. We had a very good meeting in the Court House in Milton, Mr. Miller, Reeve of Trafalgar, in the chair. After the address, several persons spoke on various practical subjects having a particular local application.

I had a very wet ride through Dequessing, from Milton to Georgetown, and held a meeting at the latter place in the evening, which, considering the unfavourable state of the weather, was well attended. Next day Mr. Joseph Barber took me over the extensive paper mill owned by himself and brother, which is fitted up with the most approved machinery for manufacturing various qualities of paper from straw as well as rags. Mr. White has a manufactory for making envelopes of various sizes of a strong and useful quality; also wall paper, printed by blocks or cylinder—a species of manufacturing industry but recently introduced into the country. Mr. Moore has a plantation of hops, consisting of 30 acres, in this vicinity. Picking was in full force, and notwithstanding the attack of the aphid, which came too late to do very serious mischief, the plantation will probably average 12 to 14 cwt. an acre. Mr. Goodwillie has a small field of hops in the immediate neighbourhood almost destroyed by these insects; and I observed traces of what is called "mould" on the leaves of several plants; a condition of growth induced no doubt by the late unprecedented cold, damp weather, and the absence of sunshine. A very useful press for packing hops is in use here, made by Jacob Bricken of Waterloo, C.W. It has the double lever action, and is readily worked by two men.

After looking around this vicinity, I took a hasty trip to Guelph, to be present at Mr. Stone's sale of live stock, September 13th. The sale was well attended, and the prices obtained for Cotswold, Leicester and Southdown sheep, and likewise pigs, may be described as moderately good, but what little business was done among the fine young Hereford bulls was at rates very much below their proper value. Had Mr. Stone offered some of his splendid females of this breed, which were universally applauded both for size and beauty, the young bulls would doubtless have gone off readily.

GEO. BUCKLAND.

Toronto, Sept. 24, 1866.

Crop Reports.

"M. OLIVER COLE," of Orwell, East Elgin, writes us at some length on the above subject, setting forth the importance of some provision being made for diffusing throughout the country a trustworthy account of the yield of products, and the state of the markets. He states that he lost \$200 on the single article of clover seed last winter, for want of such information—and adds that he could cite other instances of the kind. We do not doubt it, and yet we are not prepared to suggest an effectual remedy. It is not easy to devise a plan by which, not cursory impressions merely, but carefully collected facts, shall be put in a succinct form before the public mind, from time to time, as a guide in buying and selling. Our correspondent suggests a mode of doing this, to which we cheerfully give publicity, and, so far as this paper is concerned, we can only say that its columns will at all times be open for the insertion of information which all feel to be so desirable.

Mr. Cole makes the following suggestions:

1st. That every Municipal Council in Upper Canada meet to transact their business at stated times, uniformly throughout the country.

2nd. Previous to each such meeting, the representative of each ward in the township to ascertain (which he can do without loss of time or money by keeping his eyes and ears open) near-about the quantity of each staple sown—under or over average, &c., and at the meeting of the Council a synopsis be made of the whole township, and handed to the reeve; the reeves to hold their meetings immediately following, and there a synopsis to be made of the whole county, and handed to the leading county paper for publication; and at each subsequent meeting, a report in like manner of the condition of the crops as they progress.

3rd. That THE CANADA FARMER give us the substance of all these, with whatever remarks, advice and suggestions might be considered of interest to us.

You may say we are asking a great deal; such a systematic arrangement as this may even require legislation—very good, if so, the object is well worthy of it; such an arrangement, even so comprehensive and perfect, can be carried out with but little exertion, and without cost.

PORTABLE GRIST MILL.—Robinson of Kitley, asks:—"Can you or some of your numerous readers tell me where the portable grist mill with burr stone is manufactured?"

"APATITE."—"A FARMER" asks:—"Would you or any of your correspondents through your valuable journal inform me by what process 'Apatite' can be made into Super-Phosphate of Lime? Small quantities can be procured in several parts of Canada, and if farmers could manufacture it themselves, it might prove of great benefit."

LORD RADNOR'S BREED OF PIGS.—"An English Farmer," writing from Adolphustown, says:—"Your illustration and description of Lord Radnor's pigs is very correct: I have frequently seen them at Colerhill. I imported a boar of the breed to this country some years ago, when I was rather extensively engaged in farming, and found them a very profitable breed of pigs."

KIDNEY DISEASE IN HOGS.—A. M. Ross, of Douglas, says:—"That one of his hogs became lame, lost its appetite, and was very weak in his hind legs.—He at first attributed it to the stoppage of the issue of the feet, but could find no trace of any disease of the sort. He therefore treated the animal for the kidney disease, by feeding it on green couch-grass roots, or as some call it, switch-grass roots. This completely cured the animal in about three weeks."

ONE WAY OF GETTING OUT PINE STUMPS.—A nameless correspondent writes:—"Get first a bolt made from 15 to 18 inches long, 1 1/2 or 2 1/2 inches thick—a small hole beginning in the centre at one end and coming out near the shoulder. At the other or top, a ring like a neck yoke that will take a handspike. The bolt to have a screw thread from end to end, except one or two inches at the bottom to be tapered. Get an augur a size less than the bolt, bore, put in powder, enter the screw, put in a handspike, turn round, fill the hole in the screw with powder, lay your match and clear out. Pretty soon the stump will clear out also. This plan will also split logs for rails."

FLAX PULLING MACHINE.—We published in our last a brief communication on this subject. Another correspondent who signs himself "A Flax Grower," writes in reference to it as follows from Woodstock:—"I beg to inform you that such a machine has been invented in the United States, that one has been introduced in this neighbourhood lately, almost at the end of the flax crop,—that I understand it has worked well, and that Mr. H. Brown, the proprietor of one of the foundries in this town, informs me it is a simple machine, and that he intends to have some manufactured before the next crop, and that he thinks the cost will be under \$100."

PROVINCIAL AGRICULTURAL ASSOCIATION.—John Foote of Port Hope writes:—"In your report of the annual meeting of the Provincial Agricultural Association, I am made to say that people had gone all the way to Belleville without seeing Mr. Christie's cattle. What I said was that a person had come all the way from Belleville with horses for exhibition, but had returned without exhibiting them, because there was no accommodation for them, the horse stalls having been taken up by cattle owned by Mr. Christie and others. Mr. Denison in his remarks says:—"The stalls for horses were used for bedrooms and parlours by parties attending the Exhibition. Who is to be blamed for this mismanagement?"

ERRORS IN THE PRIZE LIST.—Joseph Sharmon, of Stratford, writes:—"Would you be kind enough to see in making out your Prize List for the late Exhibition, that my name appears as getting the first prize of \$20, and Diploma for Combined Reaper and Mower? In the *Globe* an error has occurred in giving a Mr. Potts credit for getting the above prizes, whereas he never exhibited a machine. I have the diploma in my possession."

"George Murray," of York Township, writes:—"There has been an error in the Prize List of the late Provincial Exhibition. The second prize for Road and Carriage Stallions, of four years old and upwards, was won by my four year old horse, 'Coachboy.' It has been credited to Samuel Elliott of Campbell's Cross. By making this correction in THE CANADA FARMER you will be doing an act of justice."

CROP REPORTS.—A correspondent sends a clipping from the *Agricultural Gazette* in which a brief summary of the crops in the County of Essex (Eng.) is given, and asks, "would it not be a good plan to get such returns for THE CANADA FARMER from every county in Canada?"

ANS.—Undoubtedly it would, and we shall be thankful if our correspondent or anybody else will put us in a feasible way of doing it.

ALDERNEY CATTLE.—"A Subscriber" writes from Brampton, as follows:—"I am pleased with your remarks respecting the 'Alderney' breed of cattle, in your issue of the 1st inst. Would you, or some of your correspondents, give some information as to where and how the pure breed of these, or the Jersey cattle, can most easily be obtained?"

ANS.—John Giles, South Woodstock, Connecticut, has Alderneys of as fine a quality as can be obtained anywhere. He can probably supply you.

SHEEP WANTED.—George H. Rausch of Tavistock asks:—"Will you have the kindness to let me know where any thorough bred Leicester or Cotswold breeding ewes are for sale, not very old, and what the price of first rate ewes may be. A friend of mine wants to buy about 50 or 100 good thorough bred Leicester or Cotswold breeding ewes—he wants to cross them with Merinoes."

ANS.—Our correspondent should address some of the parties whose names appear as exhibitors of the the above named sheep. Those having sheep to dispose of would do well to advertise them. We do not much admire the proposed cross, but "every one to his liking," is a proverb that applies to sheep breeding as well as other matters.

PRESERVING GRAPE VINES DURING WINTER.—"Inquirer" asks:—"Can you suggest a method by which I can preserve my grape vines during winter? They are, I believe, the Delaware and Isabella varieties. They grow well during summer, but die in winter. We covered the vines over with earth last fall but they were dead this spring. They have, however, grown up again, and I am anxious to preserve them during the coming winter."

ANS.—We are surprised to learn that covering the vines with earth has not succeeded in the case of our correspondent. It is recommended by many experienced grape-growers. We have found no difficulty in preserving the Delaware by means of a light covering of litter, and some contend it is hardy enough to do without any protection. The Isabella is more tender, yet we cannot but believe that well ripened wood of either of the varieties named may be preserved by a slight earth or litter covering. It is, however, necessary in order to success that the soil be well drained. Excessive or stagnant moisture would be fatal.

The Canada Farmer.

TORONTO, UPPER CANADA, OCT. 15, 1866.

Grand Trunk Crop Reports.

We have received and carefully perused the reports of the harvest of 1866, furnished by the Station-masters, in reference to the sections of country through which the Grand Trunk Railway passes. They fill a large six-column sheet, and but for the extent of space they would occupy, we should cheerfully insert them entire. This, however, would require fully four pages, and valuable as the reports are, we could not spare so much room as that for them. A brief general notice is all we can bestow upon them, and we preface it by expressing our sense of the service rendered by the collection of so much information on a subject in regard to which there is so much difficulty in getting trustworthy information on an extensive scale. A correspondent in another column gives the outline of a scheme for obtaining crop reports, and it occurs to us to suggest that if it were made the duty of every Post-master throughout the province to transmit to the Bureau of Statistics, at stated intervals, items of information concerning the crops, in a similar manner to that in which the Station-masters are annually required to do, we might get considerable light on what is now a very dark subject. The Grand Trunk Reports confirm the accounts of the harvest which have already been given in these columns. Their testimony is that a bounteous yield of produce has marked the season, but much difficulty and loss have attended the ingathering. Fall wheat has turned out but poorly, except in the newest townships where it has been a fine crop. In the older sec-

tions of the country, it has been sown but sparingly, and the return is light, owing to winter-kill, mildew and other causes. Spring wheat has yielded well, but both grain and straw have suffered severely from excessive wet. Barley, oats, and peas are similarly reported. Heavy crops of all these have been raised, but they have been harvested with much trouble, and in a more or less damaged condition. Flax where grown has done well. Root crops have turned out better than was expected, but potatoes in many places are badly affected with rot. Hay, with but few exceptions, is more than an average yield, and in some cases has proved very heavy. Notwithstanding the bad weather toward the close of the season, the harvest has been such as to constitute this one of the years of plenty, and if present market prospects are verified, the farmers in general will have no cause to complain. Of course there are exceptional cases, in which the toil of the year has been labour in vain, but we are glad to believe that these are few in comparison with the whole, and that, taking the country at large, the reports are highly favourable, and the results of the season in a good degree satisfactory.

The Flax and Linen Trade.

AMONG the products of Canadian manufacture exhibited at the late Provincial Exhibition, the specimens of manufactured flax and linen attracted much attention. As a branch of industry, the manufacture of flax is rapidly rising in importance in Canada; and although the trade is still in its infancy here, its importance is every day becoming better appreciated, and more extended efforts are being made to develop both its culture and manufacture. One great advantage of flax over most other crops is, apart from the profit of its culture, the amount of labour it affords to the working classes. Flax costing one thousand dollars to raise, becomes, before it enters the wholesale warehouse in its manufactured state, worth fully five thousand dollars—the difference being, in good part, the price of the labour expended upon it. When the immense quantities of flax which a single mill will yearly manufacture are taken into consideration, an idea may be had of the large sums of money which such enterprises must place in the hands of the community in whose midst they are situated, and the large share which they therefore contribute to the general prosperity of the Province. To the farmer, the flax crop is a most profitable one, the seed alone paying almost as much as wheat, to say nothing of the fibre. There are now three linen manufactories in the Province; one at Preston, one at Streetsville, and one at Doon. In each of these upwards of two hundred hands find employment during the whole year. At these establishments there are manufactured bagging, bleached and unbleached linen, Canada logging cloth, plain and twilled sheeting, plain and figured towelling, rope, cordage, twine, &c.—and to such perfection has the manufacture of these articles now been brought in this country, that the goods turned out of these establishments are pronounced equal to anything of the kind manufactured in Dundee or Arbroath, and find as ready sale at equal prices in the wholesale warehouses of Montreal and Toronto. The specimens of cordage, twine, &c. seamless grain bags, linen thread, and six varieties of linen, to which were awarded the first prize at the Provincial Exhibition, and which were manufactured by Messrs. Elliot, Hunt & Co., of Preston Linen Mills, are worthy of special notice, as showing the rapid strides which this branch of industry has lately made in Canada. The articles exhibited by them, we are informed by judges, cannot be surpassed by imported goods of the same class. The manufacture of linen is not the only field for remunerative labour which is opened up by the cultivation of flax. Already there are three linseed oil mills in operation: one at Preston, one at Woodstock, and one at Toronto—all giving employment to a great number of hands, and turning out yearly large quantities of oil cake, so

useful in the feeding of stock. The oil-cake is, for the most part, exported to England, our farmers being apparently to a great extent, unwilling to avail themselves of its fattening qualities for cattle. We confess that this is matter of surprise to us, as there must be a large number of farmers in this country who are familiar with the valuable properties of this article, from having witnessed its effects in the old country. There are also now upwards of a hundred scutching mills located in the different parts of the Province, and several others are going up, giving employment to a great many mechanics and labourers.

Markham and East Riding of York Agricultural Show.

THE Fall Show of the Markham and East York Societies took place in the village of Markham on Wednesday and Thursday, the 3rd and 4th October.

There was a large display of horses—many of them superior specimens of the various breeds. We would particularly refer to the four competing agricultural stallions as deserving prominent mention. Most of these animals were imported, and they cannot fail in a few years to effect a marked improvement in the stock of the neighbourhood. Several other animals, in the same section, exhibited excellent points, as did also those in the blood and roadster classes. A few Shorthorns were shown in the cattle classes, but none reached a high standard of merit. On the other hand we noticed three Devon bulls and a single cow of the same breed, that would have made a most respectable figure in any show. On this occasion, as at the Provincial Show, there was an entire absence of the means of identification. The name of the owner was in no instance attached to the animals. Grade and native cattle comprised by far the largest and most interesting feature of the cattle department. Many of these were really handsome animals, and felt kindly to the touch. There were over 230 sheep of all classes on the ground. The Leicester and Cotswold sections comprised some highly creditable animals. Still, in a district possessing such breeders as Mr. George Miller, Mr. Thompson, and others scarcely inferior, visitors naturally expect to see a splendid show of sheep—and we confess our anticipations were hardly realized. There were several pens of South-downs also exhibited, to which the same remarks are applicable. Pigs were but poorly represented numerically, but there were some fine animals among the Berkshires and the large Yorkshires. Poultry made a respectable, but not a large display. There were some twenty-seven coops in all, containing varieties of geese, turkeys, ducks, and fowls. The implement department was highly creditable to the district. The machines all seemed well calculated to perform the work for which they were designed. They comprised winnowing and grain-dressing machines shown by R. & R. S. Patterson, Belleville; Brown & Paterson, Whitby; and T. Wilson, Richmond Hill. Ploughs, harrows, turnip-sowing machines, drills for sowing grain and plaster, feed cutting do., rollers, drill harrows, horse hay rakes and pitch forks, two and one-horse cultivators, and cultivator and drill combined were shown in great variety, and in various degrees of excellence. Indeed the implement department at Markham excels that of any local show that we have attended. Several buggies and farmer's waggons were also exhibited on the ground. Improved gates, churns, washing machines, and Venetian blinds were also among the articles displayed in other parts of the grounds. Roots, grain, fruit, manufactures, ladies' work, fine arts, &c., were shown in a large and permanent shed, specially erected for the purpose. Vegetables, generally, and grain sustained the reputation of the district. There was not a large display of fruit; but most of the specimens reached the average standard. Dairy produce was moderate in quantity, but the larger proportion of it—especially cheese—was of excellent quality. Manufactures, ladies' work, and fine arts, each comprised a long list of articles.

UPPER CANADA FRUIT GROWER'S ASSOCIATION.—A very interesting and full synopsis of the proceedings at the Fall meeting of this Association, including much important practical information on open-air varieties of grapes, is unavoidably postponed until our next issue.

The Rinderpest in Britain.

FOR some time past, successive items of news have reached us to the effect that this terrible scourge was fast disappearing. Recently, however, intelligence of a different character has come to hand. The London Times, of the 19th ult., reports that "the plague has again made its appearance in the Garstang district, between Lancaster and Preston. The disease has manifested itself at Churchtown, at Kirkland, and in Upper Rawcliffe. The very same animals which some time since recovered, along with the thousands of others, from what Mr. Breakell (the late inspector) pronounced to be the plague, and which circumstances created considerable excitement among the farmers of North and West Lancashire, and necessitated the visit of Professor Simonds to the Garstang district, have been taken ill within the last few days, and some of them have died, or have had to be slaughtered." The Times further states, that "nearly all the farmers of Garstang backed the theory of Mr. Breakell at the time, and held meetings for the purpose of asserting the correctness of his plans. The present outbreak proves either that the 'thousands' of animals referred to, never had the disease, or that cattle can have the plague the second time."

There is as yet no positive proof as to the liability of recovered animals to be attacked with the rinderpest a second time. In the cases referred to above, there is apparently room for doubt whether the original attack was actually of that disease, or some other affection, so that they decide nothing in reference to a recurrence of the malady. In reference to the proportion of loss to the number of cattle in Britain during the prevalence of this fell disease, the London Times furnishes the following statistics:—

"At the close of June, 1865, this proportion was 0.501 per cent.; at the close of July, 0.642 per cent.; at the close of August, 0.129 per cent.; at the close of September, 0.231 per cent.; at the close of October, 0.352 per cent.; at the close of November, 0.601 per cent.; at the close of December, 1.171 per cent.; at the close of January, 1866, 1.921 per cent.; at the close of February, 2.827 per cent.; at the close of March, 3.669 per cent.; at the close of April, 3.968 per cent.; at the close of May, 4.138 per cent.; at the close of June, 4.203 per cent.; and at the close of July, 4.225 per cent.; at the present date, the proportion is thus, as nearly as possible, 4½ per cent."

Veterinary School.

WE call the attention of our readers to an advertisement which appears in our present issue, relative to the opening of the Veterinary Class in this city. In addition to a well organized system of instruction in Veterinary science and practice, for professional purposes, provision is made to meet the peculiar wants of young men actually engaged in farming. Professor Buckland, who is assisted by several of his colleagues in University College, gives familiar instruction in the science and practice of Agriculture, including the history, breeding and management of farm animals. This course, which continues for about six weeks, and is entirely free to agricultural students, includes a certain amount of veterinary instruction, comprising the symptoms and treatment of ordinary diseases, suited to the capacity and wants of young farmers. To professional students the course is necessarily more extended, but the fees are very moderate. Mr. Smith will be ably assisted in this department by gentlemen of unquestionably high attainments. Last year three students passed very creditably the terminal examination, and obtained the Diploma of the Board of Agriculture, who are now successful, we believe, practicing the veterinary art in different parts of the Province. In this way competent practitioners will, by degrees, be sent out, able to treat the various types of disease among farm stock, in accordance with the advanced state of veterinary science and practice. We hope that many young men, too, will avail themselves of the short and popular course on the principles of agriculture, in connection with this commendable undertaking.

The Harvest in Europe.

WE learn from English papers that the long continued wet weather has very much retarded harvest operations, and seriously injured the crops. Notwithstanding the unfavourable season, however, an average crop on the whole has been secured. Mr. Sanderson, writing in the Times sums up as follows: "The crops in England are superior to those in Scotland, from the unusual circumstances of there having been a greater and more regular rain fall in England than in the north. Indeed, with the exception of wheat, all the crops in England are average or above average; while in Scotland, with the exception of barley and potatoes, all crops are under average. Taking both together, I estimate the wheat crop at 7 per cent. below average; barley, above average; oats, average; beans, do.; peas, 20 per cent. above average; turnips, fully average; and potatoes above average. With regard to the harvest generally in Europe, a French agricultural journal makes the following statement:—"In France there is neither the ordinary quantity nor quality of wheat, and but for free importation a scarcity would succeed the abundance of the past three years. England is also beginning to complain, not of quantity, but of quality. Russia has had an excellent wheat harvest, as well as Spain. Italy does not seem to be much more fortunate than France. The locusts have ravaged Algeria. Northern Germany appears to be divided. The southern provinces of Hungary have suffered much."

WESTERN FRESHETS.—Much damage has been done to late corn and other crops at the far west by the unusual floods that have prevailed. Much of the richest corn land in Ohio consists of what are called "river bottoms," and these have been, almost without exception, totally submerged. The crops that have thus suffered will be almost entirely worthless. Crops similarly situated in Ind., Ky., and Ill., have suffered in like manner. Fortunately the crop was so enormously large that heavy losses may be experienced and yet leave full supplies for home use and export, but still the prospect is not encouraging, as compared with that presented a few weeks ago.

SHORT HORN CATTLE IN ILLINOIS.—We were surprised when at the recent Michigan State Fair to find so many and such excellent specimens of Durham cattle owned in that State. The Prairie Farmer in a notice of the seventh volume of the American Herd Book, recently issued, mentions that Illinois figures most respectably in that publication. Of 1086 pedigreed bulls bred or owned in the United States and Canada, Illinois lays claim to 140, or about one eighth. Of 2,400 cows, Illinois claims 228 or nearly one tenth. This is certainly a creditable showing for so young a State, and augurs well for its future distinction as to prime stock.

MONTREAL VETERINARY SCHOOL.—An institution of the above character, under the patronage of the Board of Agriculture of Canada East, will be opened on Wednesday, 14th November, in the Lecture Rooms of the Medical Faculty of McGill College, Cote Street, Montreal. It will be continued till January 31st, and embrace the following subjects, viz:—Anatomy, including dissections, Physiology and Histology, Chemistry and Materia Medica, Pathology and Chemical Instructions. Students intending to study the Veterinary Art as a profession will be required to attend for three sessions, and, on passing the examination prescribed by the Board of Agriculture, will receive a diploma. Besides the students of regular course, tickets will be granted to gentlemen wishing to attend the Veterinary Lectures only. As an encouragement to young men wishing to study the profession, the Board of Agriculture will grant six burseries, or tickets for attendance on all the lectures. These may be obtained by applying to the Secretary of the Board of Agriculture. The Veterinary department will be conducted by D. McEachran, M. R. C. V. S. Arrangements have been made with the Medical Faculty of McGill College whereby Veterinary Students will be admitted to the lectures of the Institutes of Medicine and Chemistry. Those who desire it, will also have the privilege of attending Professor Dawson's lectures on Agriculture at the University.

CATTLE AND SHEEP FOR NOVA SCOTIA.—At the recent Provincial Fair, Professor Lawson made extensive purchases of prize cattle and sheep for the Nova Scotian Government, and he is now visiting some of the principal breeders in the country for the purpose of seeing their stock. His purchases include many full bred animals: Hereford bulls from Mr. Stone's celebrated herd; Durhams from Mr. Arkell, of Guelph, Mr. Beattie, of Markham, and Mr. Douglas, of Lobo; Ayrshires from Mr. Lawries, Scarborough, and Mr. Fawcett; and Devons from Mr. Perdue. The sheep purchased are principally Cotswolds and Leicesters, long-woolled sheep being in demand in the Lower Provinces. These are chiefly from the fine flock of Mr. G. Miller, of Markham, with a few Southdowns from Mr. Bethel and others. It is the practice of the Nova Scotian Government to sell the animals bought in this way at auction.

FLOWERS.—James Vick, of Rochester whose advertisement appeared in our last issue, had a splendid exhibition of it were at the *New York State Fair*, that attracted much attention from visitors and took several prizes, viz: the first on Cut flowers, the same on Pansies, Ten Weeks' stocks, collection of Dahlias, and also for twenty-four dissimilar blooms of Dahlias, German Asters, and American Seedling Verbenas. All these were in the professional list, as Mr. Vick is one of the largest dealers in flower seeds in the country, both native and imported. The *Country Gentleman* says: "The most brilliant display in the tent was the collection of James Vick of Rochester, and included asters, sweet peas, dahlias, double zinnias, Japan lilies, double hollyhocks, and an unusually gorgeous display of the gladiolus."

Having tested Mr. Vick's seeds repeatedly and found them choice, we can cordially recommend him to any of our readers having occasion to deal with an American Seedsman.

EARLY FROST ON THE PRAIRIES.—Let those who are fond of drawing comparisons between the far west and Canada, unfavourable to the latter, look at the following record of the frost of Sept. 21st, as it affected various parts of the prairie region. In Peru, ice formed $\frac{1}{2}$ inch in thickness; late corn damaged. In Peoria, hard frost; corn not much damaged. At Dixon, slight frost; corn not hurt; same at Amboy. At Bloomington, damage to corn slight. At Rockford, frost severe; the damage cannot be estimated, but extensive, as feared. At Henry, diminishes the crop 1-4th. Galena, little damage. At Belvidere, ice 1-4 inch in thickness; half the corn crop was ruined. At Mendota it was considerably injured. At Galesburgh, as at Princeton, frost light.—In Ind., Iowa, and Wis., generally reported light. It was most severe along the line of the Dixon Air-line, and the Chicago, Burlington, and Quincy railways. In consequence of the frost, corn advanced in Chicago to 63c on Friday week, says the *Chicago Republican*, of the 22nd ult.

Agricultural Intelligence.

A new Hampshire farmer recently sold four years' clips of wool for sixty cents per pound. Two years ago he was offered \$1 05 for what he then had, but held it for a rise. The whole amount was about 2,600 pounds.

A little girl, near Milton, Pa., was sent to the fields a few days since, to carry lunch to the field hands. Remaining away longer than was necessary, search was made for her, when she was found strangled to death by a black snake. The reptile had coiled itself several times about her neck, and had to be cut in two before he would release his hold.

DEATH FROM HYDROPHOBIA.—An interesting child, son of Noah Bullock, Esq., reeve of Minto, was bitten a short time ago by a cat. The wound was not thought to be dangerous, but a few days ago hydrophobia set in, and the poor little sufferer died in great agony.—*Guelph Advertiser*.

AN ACCIDENT.—A correspondent says, a son of Mr. Sherman, of Cathcart village, Burford, eleven years of age, while playing with a younger brother in turning a fanning mill, had his left hand caught by the cogs of two of the wheels, crushing two of the fingers to such an extent as to compel Dr. Clarke, of Princeton, to amputate them.

A FLAX MILL.—We record with pleasure the fact that Mr. Henry Calcutt, of Peterboro, intends next year to erect a scutching mill in this town. He is already negotiating for a suitable piece of ground, and will proceed with the work as soon as the necessary arrangements can be completed. A good and convenient market will thus be offered farmers who may wish, on a large or small scale, to enter upon the cultivation of flax, and we have before, in these columns, from information derived from various sources, shown that the crop will pay well.—*Coboury World*.

SHEEP KILLING BY DOGS.—Within the past few days quite a number of valuable sheep have been worried to death by dogs in this neighbourhood. On Wednesday night of last week, Mr. H. D. Hutton, had six very valuable sheep worried, including a most valuable ram of improved breed. Five of the animals were killed outright, but one is yet alive. On Friday night the flock of M. P. R. Wright, embracing some of the highest bred animals in the country, was attacked, and twenty of them killed. Mr. Bray, Mr. McEvers, and Mr. May, have each suffered more or less from these sheep-killing dogs, and in no instance has any person been able to trace the guilt to the proper quarter.—*Coboury Sentinel*.

THE BARLEY TRADE. The crop of barley was this year heavy throughout the Province, and the acreage unusually large. It is now pouring into the markets in immense quantities, making a heavy draught on the Bank circulation. The Banks, however, continue to supply the necessary funds for the removal of the immense product at the usual rate of seven per cent. One hundred and twenty thousand bushels were disposed of in the Toronto market during three days, including Saturday, Monday, and Tuesday; and one hundred and fifty-one thousand bushels were shipped during the week, leaving seventy-eight thousand bushels in store.—*Hamilton Times*.

THE POTATO BLIGHT.—Our obliging correspondent at Gaspé, Mr. Joseph Eden, writing under date of the 15th instant, informs us that the potato rot has committed great havoc in that section of the country. Some of the fields, he says, have been almost entirely destroyed. The farmers in the district of Quebec also complain of the immense amount of damage done to the potato crop by the same fell disease, during the last two weeks, owing, probably, to the great quantity of rain that has fallen. It is not generally known, perhaps, in this connection, that by simply cutting off the stalks before they are withered, the disease is prevented from communicating itself to the potato. The remedy is said to be really efficacious, and is quite simple; and by its adoption, hundreds of thousands of bushels of this very important article of consumption might probably be saved annually. Why not try it, if only by way of an experiment?—*Quebec Gazette*.

WHEAT CROP OF MINNESOTA.—Contrary to general expectation, the crop of wheat in Minnesota bids fair to be greatly below the average yield. The *St. Paul Press* says:—The cold wet weather of June, followed by the hot, dry season in July, has effected an unsuspected damage to the staple which the threshing machine is but just beginning to develop. So far from realizing the promise of an abundant yield, our farmers are discovering that their prolific growths of straw turn out but a shrunken berry, that has little the appearance, weight or quality of the grain hitherto known as Minnesota wheat. Comparatively but a small amount of No. 1 wheat will be sent from this State this year, and the average yield, instead of being up to the usual figure of 25 bushels to the acre, will we fear fall below 15. If the total product, allowing for a largely additional breadth sown, equals three-fourths of the crop of last year, farmers may congratulate themselves.

THE CORN CROP OF THE UNITED STATES.—An Ohio correspondent of the *Cincinnati Gazette* gives some interesting statements of the corn crop of the United States, and by some tabular statistics, shows that the average increase of this crop is about 5 per cent, per annum. In 1840, the crop was 377,531,875 bushels; in 1850, 592,671,104; in 1860, 830,451,707; and the estimated crop for 1866 is 1,039,000,000. The differ-

ent portions of the United States, where this crop is the staple, are as follows:—New England, N. Y., and N. J., 38,918,890 bushels.—Pa., Md., Del., Va., N. C., and S. C., 128,998,249 bushels.—Ga., Fla., Ala., Miss., La., Ark., and Texas, 147,433,726 bushels.—O., Ind., Ill., Ky., Ten., Mo., Mich., Wis., Minn., Iowa, and Kansas, 550,627,943 bushels. It will be seen that the main dependence of the nation for this crop is in the valleys of the Missouri, Ohio, and upper Missouri rivers; and of these States above mentioned Illinois is the one in which it is produced in the greatest quantity. In Ohio the average yield per acre for the last 20 years has been 53 bushels, although 180 bushels have been grown on a single acre. There are also many counties in the State where the average product is over 10 bushels.

BEAR SHOT.—For some time past the farmers in the upper part of the township of West Flamboro, have been complaining of considerable injury being done to their crops of corn and oats, and from numerous footmarks it was supposed to be bears that were committing the damage, and almost nightly for some time the young men of the neighbourhood have sallied forth, armed to the teeth, to meet the enemy, but his braunship always kept himself scarce when needed; and, until last night, successfully evaded all the attempts that were made for his capture. Mr. Isaac Monkhouse, however, had satisfied himself that he had found brum's trail in the swamp, on his lot (lot No. 2, 19th. con. W. T.) He conceived the idea of fixing his double barrel gun, loaded with ball, in such a manner that by placing a wire across the track and connecting it with the trigger, so that in the event of his lordship taking a stroll that way and touching the wire it would discharge the gun, and might, without exaggeration, be said to have committed suicide, which was really the case. Mr. M. last night set his gun as he had done for several evenings previous, and about eight o'clock he heard the report, but waited until this morning to see the result, when he found his lordship the bear lying quite dead, about twenty yards from where he received his mortal wounds. It being found, on examination, that both balls had passed right through his body, he appears to have vented his wrath upon the gun for the injury he had received, as it was found displaced, and the appearance of the moss around seemed to indicate that, had a living foe been there quite a fight would have been the result. This morning he was taken to the weigh-scales on the Brock road, and weighed 320 pounds.—*Hamilton Spectator*, Oct. 2.

CROPS IN THE LOWER PROVINCES.—Harvest prospects throughout the Province are very gloomy. Two or three weeks of dry weather at this time would materially help the farmer, but as wet continues we fear that the crops generally will be very far below an average. The hay on the intervals is almost totally destroyed. Along the Stubenacadie river, for miles, large quantities of grass are submerged, with no prospect of the water subsiding sufficiently to allow of its being cut. It is of course useless, but, if not removed, it will seriously injure the next year's crop; and from present appearances there seems little prospect that its removal will be accomplished. Along this river several hundred tons of hay have been swept away by the freshets of the past two weeks; while much that has been secured is of a very inferior description—badly made and full of sand and mud. The grain crops are little better. The sowing in the spring was delayed by heavy rains, consequently the grain is in a very backward state; so much so, in fact, that there is little prospect of its ripening before the frost sets in. Many farmers, for the purpose of clearing the land, contemplate rolling the straw into the ground to rot. The uplands have produced a fair crop of grass, but the want of sunshine has made hay-making a difficult task; and, as may naturally be supposed, much of it has been put into the barn only half saved. The disease has made sad havoc with the potatoes. Throughout the country in every direction, the blackened and decaying tops of this esculent meet the eye. A few weeks ago it was hoped that a continuance of dry weather might save the later sorts; but now all alike are affected. It is wonderful to witness the rapidity with which the disease spreads. A patch of potatoes that at noon presents all the appearance of perfect health, before night have their tops shrivelled up and blackened, emitting a very disagreeable odour. In portions of Hants and Halifax counties—and we suppose it is the same throughout the Province, where planted in low land—whole fields of the potatoe are submerged in water, and have been so, more or less, throughout the season. The fruit crop is not very promising. In New Brunswick a similar state of things exists.—*Halifax Colonist*.

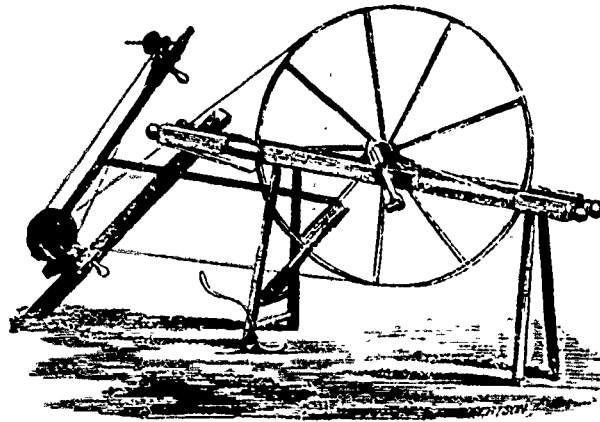
The Household.

Homedale Farm.

THE PERLEYS AT THE PROVINCIAL SHOW.

An intelligent progressive farmer, such as Mr. Perley, would of course regard it as both a duty and a pleasure to attend the Provincial Exhibition, and take his family there with him. It being his first year on the farm, and hence one during which he had laboured under some drawbacks and disadvantages, it was hardly to be expected that he would have anything to exhibit, or be in a position to compete to advantage. But he deemed the occasion a legitimate one for enjoying a pleasant holiday, and likewise as affording a fine opportunity for picking up much valuable information. By a careful survey of the cattle, implements, field and garden products, domestic and fine-art objects, many lessons and hints might be obtained for future use, and thus pleasure and profit be mingled. The Exhibition being held that year at Hamilton, was an additional inducement, since they could see how the city looked after a sojourn in the country, as well as report progress in farming to many interested and curiously-inquisitive friends. Of course, the little Perleys were quite ready for the trip, and with many keen anticipations of delight, such as only children are capable of indulging. They set out when the time came, upon the excursion. They found the train as usual on such occasions, greatly crowded, but the trip was not a long one, and the inconvenience was, therefore, but temporary. Arrived at the Show-ground, they found it no easy task to work their way through the buildings, though there was room enough on the outside. They patiently inspected every part of the Exhibition, and again and again were half tempted to regret that they had not sent some articles to compete. Charles and Lucy were quite sure there were vegetables, fruits and flowers rewarded with prizes, that were no better than some they had raised at Homedale, and they felt quite determined to try next year to produce fine specimens in order to show them. It would be such a triumph to have something they had grown declared to be the best in the Province.

The turn-out of people was nearly as interesting as any other sight beheld at the Exhibition. To see so many persons dressed in holiday attire, and apparently enjoying themselves, was very pleasant, and Mr. and Mrs. Perley could not help again and again expressing the satisfaction they derived from this source. "It must," remarked Mr. Perley, "be a great refreshment and treat for hard-working farmers and their families to visit such a scene. It breaks in upon the monotony of every-day plodding. It gives a new set of thoughts, images, and subjects of enquiry and reflection. Acquaintances meet and exchange friendly greetings. Matters of interest are discussed,—old memories are revived,—information is imparted, and enjoyment obtained." Mrs. Perley remarked that some of their Burford neighbours thought they could not afford the time and money required to visit the Exhibition. "They are penny-wise and pound-foolish," said Mr. Perley. "The stimulus to fresh diligence they would get,—the stock of new ideas they would lay in,—the flow of cheerfulness and health they would secure, are worth far more than they cost. What trouble some people give themselves to save a little expenditure of money, when in effect, they expend what is far more valuable than money. A hoard in a stocking will not secure happiness, nor give health, nor sharpen thought, nor cultivate sociality, taste, and love of knowledge, nor lengthen out one's days. The true use of money is to turn it to valuable account, and it is a poor satisfaction to reflect that you have saved a little outlay, at the expense of downright loss and self-privation." The young folks returned each with a budget full of interesting particulars about the Show, and their recollections formed the subject of many an animated and useful fireside talk. Mr. and Mrs. Perley gathered many useful hints about which they at leisure had much agreeable talk, and it was the settled conviction of all that going to see the Provincial Exhibition was well worth all its cost in time, trouble, and outlay.



Dell's Lever Spinning-Wheel.

We give herewith a cut of a spinning-wheel invented, patented and manufactured by Solomon Dell, Strathroy, C. W., and to which a first prize was awarded at the recent Provincial Exhibition. Mr. Dell says of it, "The demand for the Lever Spinning-Wheel has been astonishing, and is equalled only by the entire satisfaction it has always been found to give wherever it has been used. You sit at work very comfortably, and spin from ten to twelve knots in an hour, or from 100 to 125 knots in a day, and consider it mere play. The Lever Spinning-Wheel can perform twice as much work as the 'old-fashioned wheel,' with greater ease to the operator. The chief point of difference between the Lever Spinning-Wheel and all other similar wheels, is in the construction of the 'foot lever,' or treadle, for the feet of the operator to rest on (see the curved lever, one end of which appears resting on the floor, near the centre of the above cut). This lever gives the operator the most complete control over the movements and position of the spindle. A gentle pressure of the left foot causes the spindle to advance in 'drawing out the thread,' while a similar pressure applied to the opposite end of the foot lever with the right foot, brings the spindle back to the operator's hand in 'winding on the thread.'" The price of this wheel is \$7.00.

Curiosities of Eating.

An old bean, formerly well known in Washington city, was accustomed to eat but one meal in twenty-four hours; if after this he had to go to a party and take a second dinner, he ate nothing all the next day. He died at the age of seventy. A lady of culture, refinement, and unusual powers of observation and comparison, became a widow. Reduced from affluence to poverty, with a large family of small children dependent on her manual labour for daily food, she made a variety of experiments to ascertain what articles could be purchased for the least money, and would at the same time "go the farthest," by keeping her children longest from crying for something to eat. She soon discovered that when they ate buckwheat cakes and molasses, they were quiet for a longer time than after eating any other kind of food. A distinguished Judge of the United States court observed that when he took buckwheat cakes for breakfast, he could sit on the bench the whole day without being uncomfortably hungry; if the cakes were omitted, he felt obliged to take a lunch about noon. Buckwheat cakes are a universal favourite at the winter breakfast table, and scientific investigation and analysis have shown that they abound in the heat-forming principle, hence nature takes away our appetite for them in summer. During the Irish famine, when many died of hunger, the poor were often found spending their last shilling for tea, tobacco and spirits. It has also been often observed in New

York, by those connected with charitable institutions, that when money was paid to the poor, they often laid out every cent in tea or coffee, instead of procuring more substantial food, such as meal, flour and potatoes. On being reproved for their apparent extravagance, and improvidence, the cry universally was, in both cases, identical; their own observation had shown them that a penny's worth of tea, tobacco, or liquor, would keep off the sense of hunger longer than a penny's worth of anything else. Scientific men express the idea by saying: "Tea, like alcohol, retards the metamorphosis of the tissues; in other words, it gives fuel to the flame, and thus prevents it from consuming the fat and flesh of the body." If a person gets into the

habit of taking a lunch between breakfast and dinner, he will soon find himself getting faint about the regular luncheon time, but let him be so pressed with important engagements for several days in succession as to take nothing between meals, it will not be long before he can dispense with his lunch altogether. These things seem to show that to a certain extent, eating is a mere habit. Whole tribes of Indian hunters and trappers have been known to eat but once in twenty-four hours and that at night.—*Hall's Journal of Health.*

☞ Lime Spots on woollen clothes may be completely removed by strong vinegar.

☞ Candles may be made to burn their own wicks, by saturating them with a strong solution of nitre and then thoroughly drying them. The cause of the wicks of candles refusing to burn, is that the air cannot get access to them. The nitre, however, at a high temperature will supply oxygen enough for this purpose.—*Ex.*

☞ To MAKE BOOTS AND SHOES SOFT AND NICE AND WATER PROOF.—Apply quickly a very small quantity of castor oil. If too much be used it will strike through and soil the sock, and an excess is of no advantage whatever. Boots and shoes remain soft and pleasant longer after being slightly rubbed over with castor oil than any preparation I have tried. It is best for it not to get to the pegs or sewing.—*Rural World.*

☞ EXCELLENT SOFT SOAP.—Take 16 quarts of lye of sufficient strength to float an egg; 8 pounds of clean grease; 1½ lbs. of rosin; put the whole into a five-pail kettle and boil it. At first it is apt to rise, in which case add a little strong lye, and so continue to do until the materials are incorporated. Then remove it from the fire and add, by degrees, weak lye, stirring it at every addition, till the kettle is full. By trying this method you will find you have an excellent soft soap.—*Rural New Yorker.*

☞ CHILDREN'S SLEEPING ROOMS.—We clip the following judicious observations from the *Family Herald*:—"Most parents, before retiring to rest, make it a duty to visit the sleeping-rooms of their children. They do so in order to be satisfied that the lights are extinguished, and that no danger is threatening their little ones. But if they leave the room with closed windows and doors, they shut in as great an enemy as fire, although his ravages may not be so readily detected. Poison is there, slow but deadly. Morning after morning do many little children wake weary, fretful and oppressed. 'What can it mean?' 'What can it be?' the mother cries.—In despair she has recourse to medicine. The constitution becomes enfeebled, and the child gets worse. The cause, perhaps, is never traced to over-crowded sleeping-rooms, without proper air; but is, nevertheless, the right one. An intelligent mother, having acquainted herself with the principles of ventilation, will not retire to her own room for the night without having provided sufficiency of air for her children, in the same manner that she provides and regulates their night-covering, or any other requisite for refreshing slumber. Sometimes, by judiciously lowering a window, and at other times by leaving a door wide open, this end may be attained. In many houses the day and night nurseries communicate. When this is the case, the window of the farther room should be left open, and the doors between the rooms likewise open. Even in severe weather, young children can bear this arrangement, if they are not exposed to a direct draught."

Horticulture.

Harvesting and Storing Apples.

The present month is the time for securing the winter supply of apples, a large proportion of which, in this country, is grown by farmers. The professional grower knows well the great importance of careful gathering and careful handling of this valuable fruit, but among farmers, too many of whom are short of hands, and always hurried over their work, sufficient care is seldom bestowed in harvesting their orchard crop. So long as the apples are gathered, and taken to market in the readiest way—either loose in the waggon bed, or in bags or barrels, being inevitably well shaken and bruised on the road—yet provided he gets rid of his load at a moderate price, the seller feels no further concern in the matter. He would, however, establish a higher reputation, and be able to secure a better price for his produce, if he bestowed a little more pains in harvesting and marketing his fruit.

The proper time for gathering winter apples is just before any decided frosts set in. Exposure to sharp frost injures the flavour of the fruit, and renders it more liable to decay. They should neither be gathered nor put away wet. Cool, dry weather is the most suitable for this pleasant part of the husbandman's labour. It is almost needless to condemn the rough and ready practice of shaking from the tree such apples as are intended to be kept over winter. Every apple must by this method be considerably bruised. Even if the ground underneath were densely covered with a soft carpeting of grass, or otherwise artificially prepared for the reception of the fruit thus violently dislodged, the blows received by striking against branches and each other in their fall would damage a great number. Every bruise thus received, if it do not break the skin of the apple, breaks up the delicate internal cells filled with juice, which thus escapes and comes in contact with the air. A chemical change is thereby effected, and a process of decay set up, which will before long extend over the whole of the fruit. When stored away in this state, it is not surprising that the apples will not keep; for one decaying apple very quickly infects even a sound one adjacent. The

greatest care is therefore necessary to avoid bruising the fruit in gathering, marketing, or storing it away for winter use. Gathering by hand, into baskets, though a tedious process, is, after all, the best. When the apples are gathered, some farmers are in the habit of leaving them exposed in the orchard, in large heaps, to sweat, as it is called, before taking them into the cellar. This is a bad practice, unless the heaps are small, raised above the ground, on a layer of straw, and protected by a covering from the rain and sunshine, to neither of which should the apples be exposed after being gathered. When they are intended for the market, they should at once be put into barrels, which should, during the process of filling, be gently shaken occasionally, in order to pack the fruit as closely as possible, and prevent the jolting and friction which would happen in transporting them if the apples were loose in the barrel. When this receptacle is well filled, the head should be pressed down with force enough to prevent the apples from moving when the barrel is transported, but not with force sufficient to break the skin, or bruise the flesh of any of the fruit. For storing away,

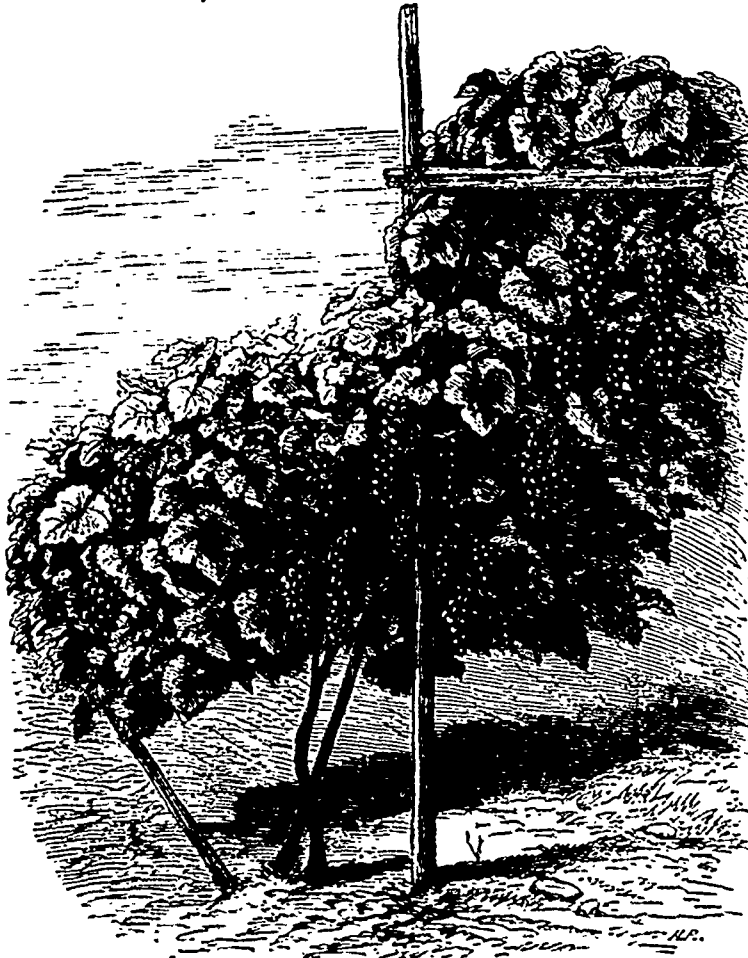
the apples should be put into barrels, boxes, or bins—the greatest care being taken in every part of the process to handle gently and avoid bruising—and should be kept in a cool, dry cellar, secured from frost, and not exposed to light. When there is room and convenience, choice varieties may be placed on shelves, and covered over with a cloth. In packing in barrels some use sawdust; interposing a thin bed between each layer of apples, and filling up all the interstices with the same material. This is a good plan for excluding the air, but is apt to impart a woody and unpleasant flavour to the fruit. A better protection from air is secured by packing in the same way with dry sand, when it can be procured. But, if carefully gathered, and carefully handled subsequently, apples will keep well in barrels placed in a proper situation—dry, cool and dark.

The apple crop is by far the most important fruit product of this country: and both for private con-

This is its fourth year of bearing. Our artist has departed a little from the actual appearance of things beneath the vine, the ground being full of layers. As many as possible of these have been struck with a view to the multiplication of the sort. This is of course a disadvantage as it respects a large crop of fruit, but the prolific habit of the vine will at once be seen from the engraving. Mr. Arnold has other promising hybrids, but this one has advanced to a stage which leaves little or no doubt as to its being a triumph of horticultural skill, and a welcome addition to our list of hardy out-door grapes.

Encouragement to Plant Vines.

"Let us plant Vines," says Horace Greeley, and to enforce his advice he offers two very liberal prizes to encourage farmers and working men to supply themselves with grapes. We should be glad to see some encouragement offered in a similar manner, by individuals of capital or by the Provincial Association to promote grape culture in Canada. Mr. G., says:—"The grape, under skilful culture, is a surer crop to-day than almost any other delicate fruit, the strawberry only excepted. Experienced growers say that grapes may be grown, wherever they thrive at all, for the price of wheat, pound for pound; yet, while wheat scarcely averages four cents per pound to growers, grapes can almost always be sold at double that price. We can start the vine and enjoy its fruits within three years; whereas at least thrice that time is required to bring an orchard from infancy to maturity. Our farmers and mechanics, their wives and children, but especially our farm-laborers and day-laborers generally ought to eat far more good fruit and far less salt meat; and they cannot until fruit becomes far cheaper and more abundant. I would suggest to our Agricultural Societies, State and local, the expediency of concerted systematic efforts to extend the cultivation of the vine. Let us organize county and town societies which shall have the diffusion of vine culture for one of its prominent objects. It would be easy to have a few vines planted on every farm, and then theft—a sad discouragement to fruit growers—would be obviated. Only let us make grapes as abundant as potatoes, and they will no more be stolen,



sumption and for marketing, the extra time and attention required in careful harvesting will be well bestowed, and be more satisfactory to both producer and consumer than the hasty and careless methods too often practised.

Mr. Arnold's New Grape.

In our issue of Nov. 1st, 1865, we gave an engraving life-size, of an average bunch of grapes borne by a new hybrid vine, which, after patient and long-continued experiments, Mr. Chas. Arnold, of Paris, has succeeded in producing. After another season's trial, this new grape continues to give excellent promise. It has been subjected to the inspection of some of the most experienced pomologists on this continent, among them the Hon. Marshall P. Wilder, of Boston, and pronounced by them a most gratifying success. The production of so valuable a seedling grape is a matter of public interest, and most encouraging to Canadian fruit-growers. We present herewith an engraving of the parent vine as it appeared a few days ago, with the clusters of fruit upon it.

A little well-directed effort by a few public spirited men and women will secure to their township an abundance of grapes. If the vine is planted on every farm therein, it will be seldom that the crop will utterly fail. There will at first be many diverse species or varieties, and experience will show which is best adapted to the climate and soil of that locality. Time will teach many valuable lessons, and a few years will give us thousands of skilful vine dressers. We shall live longer and better, have more comfort and less disease, when every dwelling shall be surrounded by its vines. I hope our Agricultural Societies and Farmers' Clubs will devise and adopt fit measures to stimulate the planting of the vine; meantime, I, as a mere beginner, will pay a premium of \$200 to the first, and \$100 to the second township of not less than 100 houses, whose three principal officers shall certify to me that every dwelling in that township has not less than two well planted, thrifty vines."

An exchange paper contains the following imploring advertisement:—"Will the gentleman who stole my melons on Sunday night last, return me a few of the seeds, as they are a rare variety?"

Miscellaneous.

South Riding of Waterloo Fall Show.

THE Annual Fair came off Oct. 3rd, at Preston. The cattle were rather late in coming on the ground, but when they did come a sight of them well rewarded a person for the annoyance of having to wait a little. The Durhams and grades were very fine, and of these beautiful beasts, Mr. Lowell, of Galt, was no mean exhibitor, and indeed so far as our observation extended, it was from the direction of Galt that the greater part of the articles made their way to the exhibition. Devon cattle also appear to stand more in favour in that section than they do about here, or indeed than in most other places. In the sheep department we noticed a few merinos, but not very many, nor did they appear to be first-rate of the class. They were lean, dirty, and presented an appearance even more forlorn than common. The Waterloo people are not by any means behind in the rearing of other species of sheep. In Southdowns they seem to take a pride, as we saw a very large number of these compact and beautiful animals. The show of Leicesters was also very large, for when we would have imagined that there were already enough to make the show a good one in this class, waggon after waggon came crowded with these long-woolled, bleating competitors for ribbons. The show of pigs was pretty large, and there were some superior specimens of both the Yorkshire and the Berkshire breeds. Early in the morning some rather indifferent colts made their appearance, and we asked ourselves the question, as we looked at these rather mean looking specimens of the equine species, what had become of all the fine horses of Waterloo. The exercise of a little patience provided an answer, for in an hour or two the steeds came in prancing and champing their bits, or with loose rein darting away like the wind. There is an opinion which forces itself upon us (but which may nevertheless be erroneous) that the county of Waterloo produces more good horses than most of the counties of the same size, or of a size approaching it, in the Western section. Some splendid heavy draught horses were shown at Preston, and we noticed one team of square built bays, the most serviceable looking team for farm purposes that we have seen in a very long time. There was an excellent show of grain, as might be expected. The wheat and barley were of a superior quality, and most of the oats would weigh well, although there were some light, and considerably the worse from having been exposed to the heavy rains. Better vegetables than were here shown we do not recollect to have seen, monster pumpkins, large cabbages, cauliflowers and beets, all bore testimony to the art that had been bestowed upon their culture. The fruits consisted chiefly of apples, pears, plums, and grapes. The apples were such as are seldom equalled, more particularly winter apples, which were as large as ordinary table turnips.

Besides all these things were many beautiful articles shown, giving evidence of brilliant mechanical genius, such as the threshing machine exhibited by Lutz & Co., Galt, the ploughs by the same firm, straw cutters by Mr. Whan, a threshing machine mounted on two wheels, as if it were the box of a cart, by the same gentleman, a beautiful, highly-finished open buggy by Mr. Shultz, Preston, and some very neat hubs, and efficient cutter stuff by McMillen & Co., Galt. There were also some good specimens of home-made cloth.—*Guelph Advertiser.*

Fall Exhibitions.

BURGESS FAIR.—The Fall Fair in Burgess was held at Stanleyville, on Monday last, and was well attended by the farmers and others in the vicinity. Cattle met with ready sale, and brought good prices.—*Perth Courier.*

THE PITTSBURGH SHOW.—The annual fair and cattle show of the township of Pittsburgh came off on Monday in the hamlet of Barriefield. The show of cattle and sheep was exceedingly good. There was not much grain, and very little butter, but what there was was good. The display of roots, especially potatoes, was excellent, never better, and the cabbages were splendid. On the whole the show was the best for several years past.—*Kingston Whig.*

CROWLAND.—Crowland township fair, held yesterday at the Town-hall, was a very successful exhibition. The attendance was large and the articles exhibited of good quality, and fair samples of the producing power of the township. The show of roots, grains, and in the ladies' department, was especially praiseworthy.—*Welland Tribune, 4th.*

EAST NISSOURI.—The annual show came off on Monday last, and for a township show the display of stock, grain and roots, was excellent. The number of farmers and their wives and daughters present on the ground was greater than on any former occasion. The dairy produce, butter, cheese, &c., were highly creditable to the farmers of East Nissouri.—*Woodstock Sentinel.*

SOUTH OXFORD SHOW.—The annual exhibition of the South Riding and North Norwich Agricultural Societies, was held at Norwichville, on Tuesday and Wednesday last. The show was fully equal, and in many instances far superior, to any previous county show, a fact which speaks volumes for the enterprise of our farmers and manufacturers. The Hon. Mr. Brown, member for South Oxford, Hon. Oliver Blake member for Thames Division, the Mayors of Ingersoll and Woodstock, together with most of the prominent residents of the county were present.—*Ingersoll Chronicle.*

PERTH FALL FAIR.—The regular Fall Fair was held on Tuesday, a large number of persons attending. Not many cattle were brought in, but the few which changed hands were sold at a high figure, cows bringing from \$30 to \$40, and other animals in proportion. The usual crowd of apple, cider and honey sellers, were present, and drove a thriving business, being patronized by all the urchins about town, as well as children of a larger growth. In reference to the market we may report that apples were firm; cider brisk; and honey, but particularly bees, very lively.—*Perth Courier.*

SOUTH HASTINGS FAIR.—The annual exhibition of the South Hastings Agricultural Society, was held in Belleville, on Thursday, the 4th of October. Compared with previous shows, in some respects the show was considerably in advance of last year, and in others there was a decided falling off. The number of entries was larger than last year, although then the exhibition was open to both North Hastings and Prince Edward. But, taking the exhibition as a whole, while in some respects we can favourably compare it with our former County Shows, it is not at all what an old and populous and wealthy section of the County like South Hastings should produce.—*Belleville Intelligencer.*

BLENHENIM.—This is the banner township of the county for agricultural shows, and on Tuesday last, the vast concourse of people, men and women, together with the large number of stock of all kinds on the ground, were equal to if not surpassing the county show. The show of horses both for carriage and farming purposes was excellent, and the display of horned cattle, sheep and swine was creditable to the farmers of Blenheim. The grain was of excellent quality and the number of entries was great. The display in the dairy and ladies' department was magnificent. Potatoes, cabbage, and roots were of immense size, ample evidence of the fertility of the soil of this township.—*Woodstock Sentinel.*

ELORA FAIR.—The Fair in Elora, on Tuesday last was well attended, and at an early hour of the day the ground was covered with cattle. Buyers were in attendance in full force, and good beef was at once bought up. Working cattle were bought in largely, and commanded liberal figures—\$120 per yoke being asked and given. Sheep were freely offered, and more were on the ground than at any previous fair. The want of the pens, so foolishly removed to the south side of the river last year was much felt, and loudly grumbled at by the farmers. Horses were as usual, better in quantity than quality.—*Elora Observer.*

MINTO AGRICULTURAL SHOW.—The Minto Township Show, which took place at Harrison, on the 2nd instant, was very well attended, but the number of articles exhibited was not quite so large as on some former occasions. This is no doubt attributable to the late unpropitious harvest weather which exercised peoples energies sufficiently in saving their crops, without leaving them much time for the preparation of articles for exhibition, but, upon the whole, it was a very respectable show for a new township. The cattle and horses were not equal to what we are accustomed to see in Guelph. The grain and roots were very good in quality, but not in such abundance as on former occasions. The samples of butter and cheese were numerous, and appeared to be of excellent quality. There was also a very good display of ladies' work. Some very good waggons were on exhibition, but very few agricultural implements.—*Guelph Advertiser.*

GRANTHAM AND ST. CATHARINES ANNUAL FAIR.—This show, although probably a very respectable affair as contrasted with some of the neighbouring municipalities, was, for such a rich locality as this, meagre and indifferent. For instance, in the horse department only four horses were shown under saddle, not one of which could really be said to be a good saddle beast; while in the horticultural productions and in manufactures the exhibition was almost an entire failure. The people, we imagine have become tired of these little one-horse shows and will not bring out articles for exhibition where the taking of a premium does not amount to much either in a pecuniary or honorary sense.

NASSAGAWEYA SHOW.—On the 2nd instant we had the privilege of attending the exhibition of agricultural products of this enterprising little township. The day was all that could be desired, and consequently there was a large influx of people from every quarter of the township. The general opinion was that, in roots especially, Nassagaweya was at least equal to the Provincial Show, not merely in size, but in quality. The floral hall was well filled, but the fine arts were but poorly represented. There was a good show of horses and cattle, and also of pigs and sheep. There was a great display of butter. We are sorry to observe that the proceedings were marred by heavy drinking and consequent rowdiness and fighting.—*Canadian Champion.*

THE COUNTY SHOW.—This annual exhibition was really an extraordinary success. The beauty of the weather attracted great crowds to the crystal palace, and the large number of entries gave the visitors something to look at. It is impossible to do justice to the merits of the show, and therefore we shall not attempt to particularize. Suffice it, that the show of horses, cattle, sheep, hogs and poultry, was both large and good. The display of grain was also excellent, and that of vegetables was positively superb, far better, we are assured, than that of Toronto. The mechanical arts were partially done justice to, particularly in the show of agricultural implements and carriages of all kinds. The attendance of both county and city people was great.—*Kingston Whig.*

MITCHELL SHOW.—The Annual Fall Fair of the Fullarton, Logan and Hibbert Agricultural Society, was held in Mitchell on the 3rd. The weather was far more propitious than people had been led to look for, and the consequence was that a larger number of people thronged our streets and show grounds than on any previous occasion. Scarcely a single instance of intemperance was observable. Compared with previous exhibitions the accommodation for sheep and swine was greatly improved. Although the number of entries made were slightly ahead of last year, there were not so many cattle on exhibition. The show of horses was exceedingly good. The agricultural horses were a numerous class, and according to the *Mitchell Advocate*, from which we quote, other things were equally numerous and excellent, so that on the whole the show was a great success, and has given general satisfaction.

EAST GWILLIMBURY AGRICULTURAL SOCIETY.—The Annual Fall Show of the above society took place at Queensville, on the 2nd instant. The day proved remarkably fine, enabling exhibitors and spectators to attend in large numbers. It was decidedly the best show ever held by the society, clearly indicating marked progress in the science of farming. In horses, there was a fine display, especially in the classes of draught and general purpose teams in harness; also, single horse in saddle, and single horse in harness. In general purpose yearlings, too, there was no less than seven entries, including many fine animals. In cattle, sheep and swine, the show was well sustained—the animals being superior to those exhibited on former occasions, and more numerous. In grain, there was a better show than we expected to see, considering the very unfavourable harvest. At the close of the day's proceedings, the members and friends of the society sat down to an excellent dinner, provided at the Queensville hotel, by Mr. Fuller.

MATILDA FAIR.—The annual exhibition of the township of Matilda Agricultural Society was held at Dixon's Corners on Wednesday last. The day was fine but chilly, and the attendance was larger than we have yet seen it. In fine cattle the display was superior to last year; and indeed we think it would be difficult to find a better collection of stock in these parts. In native cattle the display was larger than usual. The display of horses was rather meagre, yet there were two or three very fine animals on the ground. In implements the show was almost an entire blank. Vegetables were good but scarce. The same may be said of root crops and grain. The sheep were far better than we have ever seen in this township before. The ladies' department was hardly up to last year in the number of articles on exhibition, although we think it was superior in point of excellence.—*Morristown Courier.*

ALBION FALL SHOW.—The Fall Show of the Albion Agricultural Society, was held at the village of Bolton, on Thursday, Oct. 4th. The day was all that could be desired, and was taken advantage of by crowds of people from the neighbourhood and adjoining townships, who swarmed into the village from early morning till afternoon. The entries in all classes were more than double those of any previous year, and in consequence the officers had considerable difficulty in providing the necessary accommodation. In horses, the principal exhibitors were Andrew McDougall, Wm. Rodgers, Esq., Wyatt Jaffray, John Jaffray, John Colley, and Charles Elliot, of Albion, John Gill of Toronto township, and Rich'd. Thomas and John Ackrow, of Vaughan. In sheep, the docks of John Colley and John Jaffray, of Albion, Samuel Ireland, George Ireland, and John Brooks, of King, and Alfred Jaffray and John Ackrow, of Vaughan, were represented. In cattle, John Gill, John Colley, George Vernor, and Wyatt Jaffray, were the largest exhibitors. And in swine, William Hanna, Esq., Henry Cæsar, Jas. Newlove, and William Caldwell, Esq.

HORSE EXHIBITION.—The exhibition is perhaps in some respects, superior to previous ones. The display of vegetables is highly creditable, and favourable comparisons, as regards quality, are instituted between this department of the exhibition and the same department of the Provincial Exhibition, and that too by parties who have witnessed both and are competent to judge in the matter. Potatoes, turnips, carrots, squashes, beets, mangel wurzels, cabbages, cauliflowers, onions, &c., were in nearly every case well represented. Of grain and flour, there are but few entries, but the quality is very superior. In fruit there are but very few samples. Some of these are excellent—especially the prize grapes and the prize apples, as well as some that have not taken prizes. In the ladies' and Fine Arts' department were many excellent specimens of skill and workmanship. As for the live stock, the entries are not very numerous—nor are the animals, generally speaking, of the best class, though there are a number of marked exceptions to this latter ruling. A number of fine sheep and large hogs are on the ground, as well as some few very good cattle and horses, but a great many are very ordinary in appearance. —*Port Hope Guide.*

WESTMINSTER AGRICULTURAL FALL SHOW.—The Agricultural Society of the Township of Westminster held their annual fall show on Thursday, 4th instant, at the Wharnccliffe Inn, three miles from London. The show was in every respect fully up to former ones, and in some departments the best that has yet been held in the township. Mr. Pincombe's Devon cattle deserve special mention; he exhibited some of the finest specimens of Devon heifers and calves that we have seen, indeed, they are said to be the best in the county. In Durham cattle, Geo. Axford exhibited some very fine animals and took two prizes. Mr. Alex. Kerr exhibited some choice Galloway milch cows, heifers and calves. The display of sheep was excellent. In roots the collection presented for competition was astonishing, the turnips, mangold wuzzel and carrots shown by Messrs. George Murray, sen., W. Walker, and others, composed some of the best samples to be seen in the Province. In proof of this we may mention the fact that some samples of Swedo turnips which took a prize at the Provincial Exhibition were not considered worth mention here, and did not even secure a third prize. This is gratifying, especially as it was thought the crop this year was a failure. —*London Advertiser.*

WELLESLEY AGRICULTURAL SHOW.—The annual agricultural show of the township of Wellesley took place at Crosshill on the 3rd instant, and taking it on the whole, was highly successful. The day being fine the turn-out of both sexes was very large, and the Waterloo brass band did much to enliven the proceedings by contributing their excellent music. The show of horses, although good, was scarcely equal to that of last year, except in carriage and draught horses, which in the opinion of some, would not compare unfavourably with those exhibited at the Provincial Fair. The show of cattle was not very large, although we noticed some fine animals. There was a marked improvement in the two year olds over last year. The display of sheep, as regards quality, far excelled any former shows, and would compare most favourably with those of many older townships. The appearance of the floral booth was considerably behind that of last year, yet there was much to admire. There were thirteen entries in spring Scotch wheat, seven in fall, and two in spring club wheat. The display of butter was certainly very creditable. There were no less than twenty-one entries in roll and twelve in firkin butter. The competition in ladies' work was pretty good, especially so in home made woollen socks. We think we are fully warranted in saying that the Wellesley show was as successful as its supporters could wish. —*Berlin Telegraph.*

BRANT AGRICULTURAL EXHIBITION.—The annual exhibition of the Agricultural Association for the West Riding of the county of Brant, was held on the Society's grounds, West Brantford, on Tuesday and Wednesday last. The display of horses, sheep and cattle, was very fair. Notwithstanding that this year was an advantageous one for dairy produce, there were remarkably few entries in butter, and the cheese exhibited was so poor as to be declared unworthy of a prize. The bees have had such a rainy season of it that very little honey has been manufactured, and of so poor quality was the solitary box on exhibition that the judges found it impossible to give any prize. There were few entries of bread and domestic manufactures compared with former years. The show of fruit was very good, though not so large as on former occasions. The roots were well worthy of the reputation of our good county; and the display of home manufactures, both in the building and out of it, including carriages and stove-ware of all sorts and patterns; harness, trunks and upholstery, very creditable indeed. The specimens of the woolly tribe, Leicesters, Southdowns and Merinos, were universally admired, and the sheepfolds were inspected with as much interest as any other department. —*Brantford Expositor.*

PERTH SHOW.—This show opened on the 4th. We cannot assert that the hall had that look of "fatness" which it has had for a year or two back. There was not, however, any falling off in the "quality;" but in most things an improvement. The tables usually filled with fruit were very bare, though what there was on them was excellent. The root crops were first class, and cabbages, cauliflowers, &c., (especially from the Albion garden), would be hard to beat. Squashes ran over 100lbs., and a cabbage was marked 22½ lbs. Field roots were very good. We were glad to see the evidences of attention paid to an important branch of agricultural and manufacturing industry in the growth of flax, one of the samples on view being pronounced the best ever seen in the Province. Domestic manufactures, particularly a pair of blankets, which took the first prize, evinced an improvement over preceding years. Butter, cheese, and bread, go well together and the display was a gratifying proof of what Perth can do in these important requisites. The furniture exhibited by Mr. Inman would do no discredit to Messrs Jacques & Hay; and as for photographs—why, one envied those whose "carries" appeared in the artistic groups of Mr. Hall and Mr. McWinnie, the distinguished honour done them. As to ladies' work, suffice it to say that the fair daughters of Perth combine the charming with the useful in a very high degree. There is a case of bonnets on view which if not entered as of the manufacture of the town, we would have declared to be an importation from Paris. —*Stratford Beacon.*

NICHOL AND PILEINGTON UNION SHOW.—The Union Show in connection with the Agricultural Societies of these townships was held in Elora, on Friday the 5th Oct. The stock, horses, &c., were shown on the ground attached to the Drill Shed, and that large and commodious building furnished ample and excellent accommodation for the grain, roots, dairy produce, &c. The united townships always make up a good show, but this year they eclipsed all their former efforts. Some of the stock exhibited have attained Provincial fame, so it is no wonder that the show in that class was superior. Messrs. J. & R. Hunter, Alex. Watt, John Bonnalie and Alex. McQueen, Pilkington, were leading exhibitors in this class. The sheep, too, were superior and very numerous—there being twice the number of entries compared with any previous show. The horses made a very creditable display. There was not a large show of pigs, but some fine animals were shown, especially those owned by Messrs R. Cromar, George Hirst and H. Larier. There was a much better show of grain than we expected. The white and midge proof samples of fall wheat were excellent, and the barley in color and size was scarcely behind the best samples of previous years. The potatoes made a fine show, there being 33 lots in all. The turnips were also good, considering the season, and the competition was keen, there being 17 lots of Swedes, and 7 of yellow Aberdeen. Other vegetables, particularly carrots and beets, were better than the average shown in the North Riding. But the butter was the great feature of the show. A finer display of fresh or salted butter we never saw before. The cheese was very good, but not many samples were shown. —*Guelp Mercury.*

GARAFRAXA AGRICULTURAL SHOW.—The Fifth Annual Exhibition of the Garafraxa Agricultural Society, was held in the village of Douglas, on the 3rd inst. The show was equal in most respects and superior in some to that of last year. This year, however, its partial failure is to be accounted for by the late harvest and not as on a former occasion by the mutual jealousies and local ill feeling of some mem-

bers of the Society. Owing to the almost incessant rains which prevailed during the month of September, many of the Garafraxa farmers had not been able to get their crops harvested, heaps of oats, peas, wheat and even barley being lying in the swath or standing in the shock the morning of the Show. The day being favourable for drawing in, numbers remained at home, no doubt, very unwillingly, to complete these harvest operations. Not one farmer in ten had thrashed, and consequently very little grain was presented for inspection. If it had not been for these and similar causes, there is no doubt but the show would have been a great success. As it was, however, hundreds of visitors from all parts of the country appeared upon the ground. There was a decided improvement in young horses, but the show of pigs and cattle was scarcely equal to last year. Some very good sheep, however, were presented for inspection.

There was an abundance of butter of a very good quality but the show of cheese was very meagre. Some socks and mittens of excellent material attracted general attention. A quilt belonging to Miss B. Roy, and a piece of embroidery worked by Miss Mary Ann May, deserve particular notice. There were no entries of implements. —*Cor. Guelp Advertiser.*

PUSLINCH INDEPENDENT FALL SHOW.—The first Exhibition of the Puslinch Independent Agricultural Society was held in the village of Aberfoyle, Oct. 5th. The Show so far as the people and entries are concerned was a complete success—there being no less than 577 entries. Puslinch boasts of having the best horses in the County, and the turn out in this department was ahead of former years, there being no less than 80 entries in horses.

The cattle shown were good. In this department, there is a noticeable improvement at each Show. A magnificent yoke of oxen, the property of James McCaug, which carried off the first prize at Preston, were the best we have ever seen. Mr. McCaug told us that he had refused \$300 for them in the spring. They are perfect beauties.

In sheep the show was large, and a good deal of interest appeared to be taken in the decisions of the judges in this class.—Mr. Kerby's imported stock were on the ground, as well as Mr. Cameron's (Flamboro'), Mr. Easton's, (Nassaga, eye), besides those of Messrs. McKenzie, Clark and Evans. There were no less than 52 entries in sheep. The pigs were of superior quality and breed. In implements the show was better this year than on former occasions. As usual for Puslinch the roots and vegetables were remarkably good. The potatoes were prodigiously large. The entries in this class attest the keen competition that existed. The wheat and peas were beautiful samples. There was an immense lot of butter both salt and fresh entered. In apples, pears and plums there were many entries. In coverlets, quilts, blankets, flannels, mitts, socks, &c., there were beautiful samples shown of the handwork of the thrifty wives and daughters of Puslinch. —*Guelp Mercury.*

A man in New Hampshire had the misfortune to lose his wife. Over the grave he caused a stone to be raised on which in the depth of his grief, he had ordered to be inscribed: "Tears cannot restore her, therefore I weep."

Mrs. Partington says she can't understand these market reports. She can understand how cheese can be lively, and pork can be active, and feathers drooping—that is, if it's raining; but, for her life, she has no notion how whiskey can be steady, or hops quiet, or spirits dull, nor how lard can be firm in warm weather, nor iron unsettled, nor potatoes depressed, nor flour rising—unless there had been yeast in it, and sometimes it would not rise then. —*Boston Cultivator.*

LUCK AND LABOUR.—Luck is ever waiting for something to turn up.

Labour, with keen eyes and strong will, is sure to turn up something.

Luck lies in bed, and wishes the postman would bring him news of a legacy.

Labour turns out at six o'clock, and with busy pen or ringing hammer, lays the foundation of a competence.

Luck whines—Labour whistles.

Luck relies on chances—Labour on characters.

Luck slips downward to indigence.

Labour strides upward, and to independence.

Advertisements.

VETERINARY SCHOOL, U. C.

PROFESSORS:

A. SMITH, V.S., Edinburgh Anatomy and Diseases of Farm Animals. J. MEYRICK, M.R.C.V.S., Veterinary Surgeon Royal Artillery: Veterinary Materia Medica. JAMES BOVEY, M.D.: Animal Physiology. GEO. BUCKLAND, Professor of Agriculture, University College: The History, Breeding and Management of the Domesticated Animals.

MR. SMITH'S classes for Anatomical demonstrations, including dissection, for second and third year students will commence on November 12, 1866.

That for first year's Veterinary Students and Agricultural Students will begin JANUARY 9, 1867.

For particulars apply to Professor Buckland, University College, The History, Breeding and Management of the Domesticated Animals, or A. Smith, V.S., Toronto.

HUGH C. THOMPSON, Secretary Board of Agriculture.

Board of Agriculture, Toronto, Oct. 5, 1866.

MONEY TO LOAN.

THE TRUST AND LOAN COMPANY OF UPPER CANADA have funds for investment on the security of first class town and farm property, and are also prepared to purchase real mortgages.

The rate of interest on loans is 8 per cent. No commission charged, and expenses reduced. The loans are usually for five years, but can be made payable in yearly or half yearly instalments if desired by borrowers.

A deposit of \$10 required with each application. For further information apply at the Company's Office in Kingston, or to the Valuator's Office in each District. Kingston, 8th October, 1866.

Vaughan Agricultural Society.

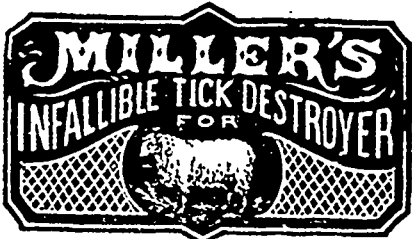
THE ANNUAL FAIR

Of this Society will be held

On Wednesday, the 24th October.

THOMAS GRAHAM, Secretary.

Vaughan, 11th October, 1866.



A CERTAIN cure for Tick, and all skin affections in Sheep. No flock master should be without it. Prepared only by

HUGH MILLER & CO., Chemists, Toronto.

Toronto, Jan. 1.

IMPORTANT TO STOCK BREEDERS.

FOR SALE.

SEVEN DURHAM BULL CALVES, a few Durham heifers, the S bull calves by Marston Duke Aldred; 30 Cotswold, Leicester and Shropshire down Rams, a few Ewes, also Ram and Ewe Lambs.

GEORGE MILLER, Markham, P. O.

Markham, September 8, 1866.

BONES! BONES! BONES!

A Half Peck for any quantity of Bones, delivered in Boston or at our Bone Flour Manufactory, in N. Y. Address, C. H. GARDNER, AGENT,

Of the Boston Milling and Manufacturing Co., 16 Cortland St., N. Y.

Seeds Direct from the Growers.

CHAS. SHARPE & CO.,

SEED GROWERS AND SEED MERCHANTS, LEAFORD, ENGLAND.

Will be glad to send, on application special quotations of FARM AND GARDEN SEEDS, of their own growth, from choice transplanted Stocks.

Markets.

Toronto Markets.

"CANADA FARMER" Office, Oct. 15, 1866.

THERE is no new feature of interest to notice in business circles. Barley continues to come in freely, although reduced prices are still paid. The receipts of apples were very large on the street market. They sold at from \$1 to \$1.60 per barrel; the latter price being only paid for choice samples.

There is just now a good demand here for live hogs, fat and of good quality. Messrs. Wm. Davies, of the Toronto pork packing ing house, have commenced operations for the season and are extensive buyers.

Recent English newspapers report anxiety in regard to the crops. The weather has been stormy and wet, and altogether unfavourable for the harvest. The London Times says the prospect is at least matter for apprehension. The Mark Lane Express says the crop it seems likely to be more below the average than was expected, and seems very probable that wheat, which has so long been a neglected article, may again attract the attention of speculators. It is thought that Russia would be the greatest gainer by the short crops in Western Europe. The harvest in that country had been abundant, and heavy orders for grain had already been sent to Europe.

REVIEW OF THE PRODUCE MARKET.

Flour—Receipts during the week, 2,956 bbls. The market has declined 50c. since last report. Sales were made in the early part of the week at from \$7.25 to \$7.30 for No. 1 super, and \$7.60 for extra. Towards the close of the week, however, No. 1 would not bring more than \$7.75, and extra \$7.25. Superior sold at \$8.

Wheat—Receipts during the week, have been 30,393 bushels. Fall wheat has been selling at from \$1.65 to \$1.65 during the week. Spring sold at \$1.45. Towards the close of the week the market was weaker for all grades, and sales were effected at slightly lower rates.

Oats—Receipts during the week 700 bushels. A sale of 900 bushels is reported on p. t. The city wagon loads offering on the street market were bought at from 25c to 30c for city use.

Barley.—The receipts during the week have been 305,201 bush. Cargo lots sold at 60c f. o. b. in the early part of the week, but gradually declined in sympathy with the Oswego market to 63 1/2c. The shipments to that market have been very large, amounting for the week to 210,130 bushels. On the street as high as 65c was paid; the market, however, gradually fell, and now the best samples only bring 63c.

Peas.—No receipts by cars during the week. The sudden advance noted last week has not been maintained. Shipping lots were offered at 75c; street price from 65c to 70c.

Provisions.—Prices remain without material change from last week. Mess Pork is scarce, and primo mess little offering. Butcher sold at from 14c to 15c for shipping lots. Eggs in good demand at from 12c. to 13c. Hams, canvassed, scarce, at 15c; new cured, 17c to 18c. Bacon scarce; selling in small lots at from 12 1/2c to 13c.

LATEST CORN EXCHANGE REPORT

Flour—Receipts, 975 barrels. Market dull and lower, buyers offering \$8.50 to \$8.75 for No. 1 superfine, holders asking \$7.75 in transactions, extra lower; sale of 100 barrels inspected at \$7.03 f. o. b., 100 barrels No. 2 flour at \$6.

Wheat—Receipts 9,400 bushels. Market weaker under large receipts, sales 2 cars of fall at \$1.62. Large quantity of Spring wheat offering; sale, 1 car local primo at \$1.38; 3 cars ordinary sample offered for which only \$1.20 was bid. Oats—No receipts by cars; street price, 30c to 32c. Barley—Receipts by cars, 8,857 bushels, sales 6 cars at 54c; 4,000 bushels at 57c. f. o. b.; 1 car bushels, sales 6 cars at 54c; 4,000 bushels at 57c. f. o. b.; 1 car bushels, sales 6 cars at 54c; 4,000 bushels at 57c. f. o. b.; prices ranged from 50c to 55c; exceptional loads 56c. Peas—Selling at from 65c to 74c. Provisions—Butter moving more freely without advance. The range may be quoted at from 13 1/2 to 15 1/2c for store packed; selected dairy would bring 16c. Eggs improved; shippers are buying as high as 13c. Cheese quiet at from 13c to 14c for Canadian factory. Mess Pork, very little in market; prime mess, none in market. Bacon scarce at 11c to 12c. Lard, none offering. Hams, smoked at from \$15 to \$16.

Montreal Markets, Oct. 12.—Laidlaw, Middleton & Co., report—Flour—It sells at 4,000 lbs sales 6,000 lbs, mostly welland Canal at \$7. Market generally quiet, only a few very choice Canada superiors sold at \$7; other grades neglected and entirely nominal; market closes weak; pressing sellers; no buyers. Wheat, corn, oats and barley, nominal. Peas, latest sales at 92 1/2c per 60 lbs; market quiet. No transactions in pork or butter. Ashes—First lots \$6.90 to \$7; inferior \$6, first pearls \$7.25.

Hamilton Markets.—Grain—Spring wheat, \$1.25 to \$1.40; white winter none; red, \$1.20 to \$1.40, amber \$1.25 to \$1.42. Barley—No. 1, 50c to 60c; No. 2, 40c to 45c. Peas—common, 60c to 70c. Oats—23c to 27c. Timothy Seed—\$2.50.

London Markets.—Fall Wheat \$1.50 to \$1.75 extra \$1.82. Spring Wheat \$1.37 to \$1.42; inferior, \$1.15 to \$1.20. Barley, 50c to 55c, inferior 35c to 40c. Peas, 70c to 75c. Oats, 23c to 30c. Corn, 56c to 60c. Butter, per prime dairy packed 17c to 14c per lb, fresh, in rolls, by the lb, 4c to 1c. Eggs, 14c to 15c per doz. Wool, 30c to 32c per lb.

Guelph Markets.—Fall Wheat, per bushel, \$1.45 to \$1.60. Spring Wheat, do, \$1.15 to \$1.25. Oats, 25c to 29c. Peas, 50 to 60c. Barley, 45c to 51c.

Galt Markets.—F. W. flour per 100 lbs, \$4.00. Spring Wheat flour do \$3.50. Fall Wheat, per bushel \$1.45 to \$1.67. Amber Wheat per bush \$1.10 to \$1.25. Spring do per bush \$1.40 to \$1.60. Barley do 45c to 55c. Oats, per bushel, 25c to 30c. Butter, per lb, 13c to 14c. Eggs per doz, 10c to 11c. Straw, per load, \$2.00 to \$3. Peas, per usual, 50c to 55c. Beef, per 100 lbs, \$7. Pork, per 100 lbs, \$9.

Milwaukee, Oct. 12, noon.—Wheat—Receipts—90,000 bushels; No. 1, f. o. b. firm, and moderately active at \$2.12 to \$2.13. No. 2 f. o. b., at \$1.71 to \$1.72. Flour, equal to No. 1, Montreal inspection, quiet and unchanged.

Freights—Entirely nominal, none offering.

Chicago, Oct. 12, noon.—Wheat—Receipts 138,030 bushels; No. 1 f. o. b. firm and active at \$2.15 1/2, No. 2 f. o. b. at \$1.71 1/2 to \$1.72. Corn firm and quiet at 65c. Receipts 119,000 bushels.

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